BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-354

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 8, 2024

Filed: July 23, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME I
(Pages 1 through 246)

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ACC - Docket Control - Received 7/23/2024 1:10 PM
ACC - Docket Control - Docketed 7/23/2024 1:27 PM

VOLUME I July 8, 2024 Pages 1 to 246

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186

INDEX TO EXAMINATIONS

WITNESSES	PAGE
Chris Lindsey, Clark Bryner, and Erik Bakken - for the Applicant	
Direct Examination By Ms. Grabel	46

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	--
TEP-2	Map of Proposed Project	21	--
TEP-3	Testimony of Clark Bryner	52	--
TEP-4	Testimony of Chris Lindsey	54	--
TEP-5	Testimony of Erik Bakken	57	--
TEP-8	Witness Presentation	49	--
TEP-9	TEP Ten-Year Plans	58	--
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	--
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	--
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	--

//continued

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	--
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	--
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	--
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	--
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	--
TEP-10	Exhibits Regarding Notice Requirements	58	--
TEP-10A	Notice of Hearing	58	--
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	--
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	--
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	--
TEP-10E	Map of Notice of Hearing Sign Locations	58	--
TEP-10F	Photographs of Sign Placement	58	--
TEP-10G	Example of Sign Contents	58	--
TEP-10H	Notice of Service to Affected Jurisdictions	58	--

//continued

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	--
TEP-11	Receipt of Filing Fee	58	--
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	--
BUMCT-1	Testimony Summary of Mark Barkenbush	37	--
BUMCT-2	Witness Presentation	37	--

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 1:03 p.m. on July 8, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
DAVID FRENCH, Arizona Department of Water Resources
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns
(via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public
DAVE RICHINS, General Public
JOHN GOLD, General Public

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SPANISH INTERPRETER: Ms. Alma Dausinger, to translate any requested translations from English into Spanish and Spanish into English during the public comment session.

CHMN STAFFORD: All right. Let's go on the record. Now is the time set for the hearing on the application of Tucson Electric Power for a certificate of environmental compatibility for its Midtown Reliability Project Docket No. L-00000C-24-0118-00232 or Line Siting Case 232.

Let's take the roll.

Member Kryder.

MEMBER KRYDER: Present.

CHMN STAFFORD: Member Mercer.

MEMBER MERCER: Present.

CHMN STAFFORD: Member Gold.

(No response.)

CHMN STAFFORD: Member Drago.

MEMBER DRAGO: Present.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Present.

CHMN STAFFORD: Member French.

MEMBER FRENCH: Present.

CHMN STAFFORD: Member Hill.

MEMBER HILL: Present.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: I'm here.

CHMN STAFFORD: Do we have Member Somers online?

(No response.)

CHMN STAFFORD: And Member Gold is here. He's just not at his microphone.

MEMBER KRYDER: Right. Here he comes.

Tell him you're present, Jon.

MEMBER GOLD: Present.

CHMN STAFFORD: Thank you, Member Gold.

All right. We have a number of parties to this application. All of them are parties by right. There's the applicant, Banner Health, City of Tucson, Pima County, and Underground Arizona.

Let's start by taking appearances beginning with the applicant.

MS. GRABEL: Thank you, Mr. Chairman, Committee members. Meghan Grabel from the law firm Osborn Maledon on behalf of the applicant Tucson Electric Power Company.

With me from my law firm is my associate Elias Ancharski. And also with me up at counsel table is Megan Hill, who's TEP's in-house regulatory counsel.

CHMN STAFFORD: Banner Health.

MS. DE BLASI: Good afternoon, Chairman and Committee members. I'm Michelle De Blasi with the Law Firm of Michelle De Blasi. And I am here representing Banner Health University Medical Campus.

And with me will be my witness Mark Barkenbush.

CHMN STAFFORD: Thank you.

City of Tucson.

MR. LUSK: Good morning, Mr. Chair. This is -- my name is Roi Lusk. And I'm here with Jennifer Stash representing the City of Tucson. Our witness will be Mark Castro.

CHMN STAFFORD: And Pima County.

(No response.)

CHMN STAFFORD: All right. Underground Arizona.

MR. DEMPSEY: My name is Dan Dempsey, and I represent Underground Arizona.

CHMN STAFFORD: All right. Thank you.

Would the parties like to make an opening statement, starting with the applicant?

MS. GRABEL: Yes, I would. Thank you, Mr. Chairman. And I ask the Committee's indulgence. It's a bit longer than I normally do given the nature of this project.

CHMN STAFFORD: But it's under 30 minutes; right?

MS. GRABEL: I hope so.

CHMN STAFFORD: Thank you.

MS. GRABEL: Mr. Chairman, Committee, this case is unique compared to most that this Committee hears. The transmission line that is the subject of this application is not needed simply to interconnect a new customer or a new generation to the grid. It is part of TEP's plan to upgrade and modernize the 50- to 70-year-old electric infrastructure that serves the Tucson area. And in doing so meets several critical reliability needs as I will discuss.

If I were to give a theme to this case, it would be this.

Can we put up the slides? That doesn't count against my 30 minutes.

Progress. This is a case about modernizing an electric grid to keep pace with the City's growing population and progressing with the City to meet its evolving energy needs.

The electric grid serving the Midtown Tucson area was built in the 1950s and '60s during a time of large population growth, and it has grown exponentially since then.

I thought this was an interesting picture and certainly apropos to the present case. The population of the City of Tucson in the early 1950s was around 50,000 people. According to Archive Tucson, a

University of Arizona library website that preserves the history of the City, the entire population of Tucson in the 1950s could fit with plenty of seats to spare in today's University of Arizona's stadium.

And as you can see by the evolution of the skyline, Tucson had grown considerably by 1980. And TEP's existing 46kV grid was built in that interim period between 1950 and 1970 to accommodate that marked population change.

Tucson continued to grow in the succeeding decades, much of it through infill and already populated areas, as demonstrated by the difference in intensity of the light in the center of the skyline between 1980 and 2003.

This is modern Tucson, which has grown even more since TEP first installed its 46kV system to serve the City in the 1950s. In fact, TEP has had over 30 percent load growth since the year 2000. That's just the past 24 years, the last skyline in the photo previously reviewed.

Tucson's current population of over half a million people is more than four times what it was when TEP's existing electric infrastructure was installed. Not only has the population changed, but the City's energy needs have also evolved.

The current system was designed to serve homes and buildings that were smaller, used gas appliances, swamp coolers instead of air conditioner, and relied entirely upon cars fuelled by gas.

Today Midtown Tucson is fully developed. The City encourages infill and is being built upward. Customers rely heavily on air conditioning, particularly in these hot summer days. And the community and its government shows a keen interest in encouraging the adoption of electric vehicles, rooftop solar systems, and battery storage.

An electric grid designed to meet the needs of customers in the middle of the last century simply cannot accommodate today's increasing energy demand and new energy needs. As you will hear, the existing system is at capacity and has real reliability challenges that need to be addressed now.

Rather than simply replace that old system, TEP proposes with this project to upgrade it to modern standards that can meet the future energy needs of a growing and evolving Tucson. So how is it going to do that? First TEP will build a 138kV line that connects the existing Kino Substation to the DeMoss Petrie or DMP substation with a connection through a planned 138kV Vine Substation.

This 138kV line is the second phase of the Irvington to DMP project, which is needed to comply with NERC reliability rules to avoid overloads on TEP's transmission system in the event of a transmission outage.

The first phase of the Irvington to DMP project, the Irvington to Kino line was approved by this case in case No. 178 and was completed in 2021.

The MRP project is the second phase completing a transition loop that improves reliability for both Midtown and all of TEP's customers as you will hear in detail during this hearing.

Second, TEP will construct a 138kV Vine substation. TEP's planners determined that additional transmission capacity was needed in the Midtown area, which required the construction of a supporting substation, Vine.

Running the MRP line through the Vine Substation serves the dual benefit of adding needed transmission capacity to Midtown and completing the transmission line loop that I just mentioned.

Third, TEP will retire and upgrade its aging infrastructure. It will replace the old wooden poles you have likely seen in Midtown, and if you haven't, you will certainly see them during the tour, and

replace them with more robust but fewer steel poles. And with the addition of a new 138kV transmission line and substation it will retire and remove up to eight 46kV substations and 19 miles of existing 46kV lines in the next ten years.

The result is a net reduction of utility infrastructure, which improves the appearance of Tucson streets and saves customers from paying for millions of dollars in replacement costs for these facilities.

Fourth, while not the subject of this application, TEP intends to upgrade the lower voltage distribution system serving this area as part of the overall project replacing the antiquated 4kV distribution system with a modern 14kV system controlled by an advanced distribution management system. That's a software solution that automates outage restoration and optimizes the performance of the electric grid.

This project also proposes to relocate another 15.7 miles of existing distribution lines and communication attachments belowground as part of the preferred route for this project. In fact, between retiring assets and relocating existing infrastructure underground, 32 miles of existing overhead infrastructure will no longer be visible in the Tucson area.

So not only will reliability for the area

be improved, but the visual aesthetics of the area will improve as well as many of the visual simulations will demonstrate. And just to give you one example, the current view at Park Avenue and Chauncey Lane is riddled with utility poles and lines, including communications attachments to utility poles.

I count in the left picture 15 lines and at least six poles from this key observation point. The MRP project will result in the retirement or relocation underground of all of the infrastructure on the left and in the background. The stray line running to the light pole will also be removed. It was mistakenly left up in this picture. So the new view will include only a handful of slightly taller poles with four lines run parallel on the right side of the street.

The MRP project will clean up many of the streets along the various route alternatives, not just this one. This benefit is on top of significant reliability gains that MRP will bring to Central Tucson. I would also note that communications equipment that is currently attached to the distribution poles cannot reappear on a 138kV system because it's -- by law you can't attach communications equipment to high voltage transmission.

This project has had a really long history.

It was first identified as serving a reliability need for the TEP transmission system in 2007. TEP's 138kV transmission system at that time circled the central region but left a large gap in its growing center.

NERC rules require redundancy in the event of a transmission outage and a line bisecting the Tucson area was a needed solution. That line was to be developed in two phases. The first was Irvington to Kino, which was awarded the CEC for construction for over virtually no opposition in 2018.

But when TEP started outreach on the second phase, the Kino to DMP line, it received significant public pushback. Unlike the Irvington to Kino line, Kino to DMP ran through several more organized residential neighborhoods, but insisted that the line be constructed belowground.

The City of Tucson also took the position that the Kino to DMP line had to be built underground pursuant to city ordinance, which was a position it had not taken in the prior phase of the project.

Given the community's response, TEP withdrew its initial application and attempted to devise a solution to serve the city in a mutually agreeable way.

Because the issue of undergrounding the construction of the MRP line will play a central theme in

this hearing I want to lay a little bit more background about it. As I mentioned, the City of Tucson and other stakeholders in the first attempt at siting this project took the position that portions of the line needed to be constructed belowground to comply with the local law called the Unified Development Code. You'll hear it referred to as the UDC.

The UDC establishes what is called a Gateway Corridor Zone, which is a land use overlay intended to improve the visual aesthetic of major streets and routes in the City.

Other stakeholders argue that various neighborhood and area plans also require that the line be buried belowground. TEP disputed the applicability of those ordinances and plans, which had not been sited as a reason to underground the Irvington to Kino line, which was also in a Gateway Corridor, and argued that given the truly extraordinary cost of undergrounding, which is 10 to 20 times the cost of aboveground construction, if not more, as you will hear in TEP's case, the cost difference should not be funded by utility rates.

The dispute regarding the applicability of the UDC to this project is now the subject of litigation with a decision pending any day from superior court. However, rather than wait for the outcome of that

litigation and any subsequent appeal and because of the urgent need for this project to meet Tucson's reliability needs, TEP and the City worked together in collaboration to try to find a mutually beneficial solution.

The first thing that the City and TEP did was to negotiate with stakeholder input special exceptions to the UDC that would allow for the construction of overhead transmission lines in certain circumstances such as, and as most relevant to the existing application, when the line perpendicularly crosses one of the major streets covered by the Gateway Corridor Zone.

Second, TEP and the City explored various means of funding the extreme cost difference between building the transmission line above versus belowground. They explored utility rates, whether TEP shareholders should fund it, whether private parties -- third parties could fund it, whether government resources were available to fund it, whether an underground improvement district could fund it as provided by state law, or whether the franchise fee that TEP pays to the City could be used to fund it. As you will hear in testimony, none of these proved fruitful to explore except for the franchise fee option.

So TEP and the City determined to

renegotiate TEP's franchise with the City and to increase franchise fee to pay for various things, including undergrounding and also investing in the City's climate plan, among other things. That franchise had to be approved by Tucson voters in a special election but was heavily contested and ultimately failed.

So TEP went back to the drawing board and reengaged the public and reinitiated the siting process to determine the routes that are before you today.

Before I move on to the routes, I want to emphasize how truly extensive TEP's outreach and engagement has been for this project. As you will hear in greater detail, during the witness presentation, TEP went to incredible lengths to inform and receive feedback from each of the neighborhoods that could have been impacted by this project about it. From a public survey to multiple open meetings to neighborhood listening sessions, neighborhood advisory group meetings with 21 participating neighborhoods, social media outreach, the outreach was intensive and productive as evidenced by the hundreds of comments and questions received relating to the project. As you will hear, TEP took the community's feedback to heart as it devised its various routes.

In the end, TEP landed on the 10 alternatives presented to this Committee today. This

map, which you will see often, is identical to the map on the laminated placemat in front of you and has been marked as TEP-2.

Alternatives characterized with letters A, B, C, or D indicate routes connecting the existing DMP Station identified by the northmost blue triangle on the map and the planned Vine Substation, which is the yellow triangle in the middle.

Routes tagged with numerical identifiers, so 1 through 6, indicate the routes planned between the planned Vine Substation and the existing Kino Substation, which is the southmost blue triangle.

Each alternative route has its own demerits and merits, which we will discuss over the next several days. And we realize, of course, that there are a lot of alternatives, but, given the public interest in this process, we thought it was important to present options that went through various parts of Central Tucson and had various impacts on the Gateway Corridors.

TEP ultimately requests approval of two segments that will form one looped route serving the Midtown Tucson area. The route will be a combination of a letter segment between DMP and Vine and a numbered alternative between Vine and Kino.

Of the alternatives TEP's preferred route

is alternative B and alternative 4 as depicted in orange with the black outline on this map. The preferred route is approximately 8.5 miles long and is supported by Banner.

The City of Tucson continues to assert that portions of any route that runs through a Gateway Corridor Zone and that does not qualify for special exception must be constructed belowground. Underground Arizona also argues that any project that transverses a neighborhood or area plan that has provisions regarding undergrounding must also be constructed belowground.

This map shows the various segments with an overlay of the Gateway Corridor Zone and the two impacted plans: The Sam Hughes Neighborhood Plan and the University Area Plan.

Gateway Corridor Zones are represented in dark gray covering as relevant Oracle, Grant, Broadway, and Kino. They look like the little gray worms along the side.

As you will see, every route crosses a Gateway Corridor Zone street at one point or another. The preferred route B-4 crosses Oracle perpendicularly on the north part of the map. Then crosses Broadway as it heads from the Vine Substation. And then crosses Kino as it heads east into the Kino Substation.

That said, we believe that these crossings satisfy the requirements of a special exception allowing the entire Grant line to be constructed aboveground. That special exception should also apply to other segments that cross a Gateway Corridor route.

The routes that the City is least likely to allow to be constructed aboveground, however, assuming their interpretation of the ordinance is correct, is most of Route 1, which parallels Campbell, a portion of Route D, which parallels Campbell for a short time, and a portion of Routes 2 and 6 in the blue and pink, which parallel Broadway for a short time.

I would also note that Routes 5 and 6 require an approval from the Union Pacific Railroad. Despite TEP's efforts to get the railroad's approval of a route that implicates the railroad, we have not yet had confirmation that a route that can be built on the required time frame. So for this reason, if you choose Routes 5 or 6, we ask that you also approve an alternative in case we are unable to get the necessary authorization from the railroad on time.

As you will also see from the hashtagged area, which is where the neighborhood plans are, every single route runs at some point in time through property covered by the University of Area Plan and Routes 1 and 2

also run through property covered by the Sam Hughes Neighborhood Plan.

We firmly disagree that these plans have the strength of regulation that would require TEP to construct a 138kV transmission line belowground in these areas. Plans only apply to the project if they are incorporated into regulation through a zoning change, for example.

Moreover, because 15.7 miles of existing utility infrastructure will be relocated belowground as part of the preferred route and more for other alternatives and up to eight kV substations and several -- I'm sorry, eight 46kV substations and several more miles of distribution lines will be retired in the coming years resulting in a net reduction in overhead lines, TEP believes that the project firmly meets the purposes of these neighborhood and area plans.

Of these routes TEP prefers B-4 because it best balances the economic construction of the line with our interest in respecting the wishes of City, Banner, and other stakeholders who have urged a route other than down Campbell. That said we can build any of them. We are certainly not going to ask this Committee to resolve the legal question as to whether local law requires that the line be constructed belowground.

If, however, the Committee selects a route that it believes may conflict with a local ordinance or applicable plan, we are going to ask that you make a legal finding that the law allows you to make to supersede local regulations.

Specifically, an Arizona Revised Statute 40-360D allows this Committee to issue a CEC notwithstanding any ordinance, master plan, or regulation if the Committee finds as a fact that compliance with such ordinance, master plan, or regulation is unreasonably restrictive, and compliance therewith is not feasible in lieu of the technology available.

Assuming this Committee agrees that an area or neighborhood plan does not require undergrounding and it is only required for a route that runs through a Gateway Corridor, this finding would be required for Routes D, 1, 2, and 6.

If you agree with Underground Arizona that the plans do, in fact, have the force of law, you will need to make this finding for any of the routes that are approved because we cannot avoid the University Area Plan. This project simply cannot be built without running near the U of A.

So to the extent you choose a route that requires a legal filing -- a legal finding to construct,

we believe the facts will bear out that a requirement to build this project belowground is unreasonably restrictive, and the compliance with that law is not feasible in light of the available technology.

First, it's important to understand that feasible must mean more than possible in the context of this law. We do not contest that the law [sic] can be constructed belowground. It is physically possible to do so. It's hard to concede of a local law that would be physically impossible to comply with. But feasibility has other components, including cost, practicality, and ratepayer impacts.

As you'll see from the slide, the law generally holds that feasible includes an economic component. The Arizona Supreme Court, for example, has found that reasonable feasibility includes consideration of whether a project is achievable from a practical standpoint and economically sound.

The United States Supreme Court interpreted the word "feasibility" under the context of OSHA to include both economic and technical feasibility.

The Third Circuit also agreed that it would comport with common usage to say that a standard that is prohibitively expensive is not feasible.

And while this is a case of first

impression in Arizona, courts in other jurisdictions have hold that the increased cost of local undergrounding ordinances applied to transmission lines can render local ordinances unreasonably restrictive, prohibitive, and subject to state preemption.

For example, in Ohio the Ohio Court of Appeals held that in light of the evidence that underground installation would increase substantially the cost per mile we hold the ordinance to be unreasonable as applied to the project.

Similarly, the Wisconsin Public Service Commission overrode a local undergrounding ordinance holding that the proliferation of undergrounding ordinances would intolerably interfere with the orderly statewide planning, certification, and construction of necessary utility projects.

Massachusetts agreed finding that, quote, "There is ample evidence in the record upon which the Department reasonably could find the cost of constructing an underground transmission line prohibitive."

Our Arizona Commission has also weighed in on the matter. In a decision published last year, it put in writing its policy that -- and I'm going to quote the bold -- "Installing electric transmission lines underground is much more expensive than building them

aboveground.

"Underground transmission lines can also be more costly and challenging to maintain and repair. As a general matter, utilities under the Commission's jurisdictions should avoid incurring those higher costs unless underground installation of a transmission line is necessary for reliability or safety purposes or to satisfy other prudent operational needs.

"Installing a transmission line underground for other reasons, such as stakeholder preferences, would add unnecessarily to costs recovered through rates."

It then also noted another legal remedy for funding the underground construction of lines through the creation of an underground improvement district which the impacted residents rejected in this case, as you'll hear.

I would also note that the law specifically requires this Committee to consider the costs of the project and ratepayer impacts in its decision-making. That's A.R.S. 40-360.06(A)(8).

So against that legal backdrop, we believe that the facts will bear out that a requirement to build this project belowground is unreasonably restrictive and that compliance with that law is not feasible in light of the technology available.

In this case, as you will hear in evidence,

the cost to underground is anywhere from 14 to 22.2 times the cost to construct aboveground. Maybe in the future the technology will make it less expensive, but that surely is not the case today.

And from an environmental perspective, which is what this Committee was formed to address, it is incredibly disruptive to the environment to underground a project digging wide and deep trenches in narrow streets and requiring the relocation of existing conflicting underground utilities elsewhere with additional land impacts, not to mention the significant noise and traffic disruption associated with underground construction.

Undergrounding also has a much longer and variable construction time frame. It takes months to build a mile of an underground transmission line compared to a day or two to install an aboveground utility pole.

Tucson is also culturally sensitive area, and it is highly likely that the digging required for underground construction would unearth a historically rich artifact. In that case construction could be considerably delayed. All of this risks the much needed 2027 in-service date.

An additional delay in this case is just not an option. The Tucson system, as I talked about before, is aging and it's failing. There's an urgent

need to address it. TEP has already spent more than $10 million to band-aid its existing system, which is old and outdated, from a delayed 2024 in-service date. And it will have to spend another $10 million in repairs to this old system if we miss the 2027 in-service date.

And if it's delayed beyond then, TEP would need to replace the entire 46kV system for more than $50 million without the added capacity or modernization benefits, and it would still need to build another transmission line connecting Irvington to DMP for transmission reliability reasons. Time really is of the essence. This project can't be delayed any further than it already has been.

Of course, you're going to hear everything I just told you in evidence. Each of the Committee members present should have your binder with all of the exhibits and materials that the TEP team intends to use through the hearing and on your iPads as well. The exhibits are also accessible on the iPads as I just mentioned thanks to our great AV team.

We intend to present witnesses in four panels. On the first panel we will hear from Mr. Erik Bakken, Vice President of System Operations and Environment for TEP; Mr. Clark Bryner, Manager of Siting Outreach and Engagement for the company; and

Mr. Christopher Lindsey, TEP Senior Advisor Transmission Business Strategy and Development. Mr. Bakken, Mr. Bryner, Mr. Lindsey will present an introduction and overview of the project, its purpose and need, and its history.

Mr. Larry Robinson, director of engineering for the company, will then join Mr. Bryner to discuss the preferred and alternative routes for the project on the second panel. This panel will lead the virtual tour, which will be broken up into digestible route flyovers.

Third, Mr. Bryner will discuss public outreach together with the planning and siting process that produced the project before the Committee today.

And finally, Mr. Robinson will join Mr. Jason Jocham, a Vice President and Project Director, for Sargent & Lundy, to testify to the estimated costs and operational considerations for undergrounding portions of the proposed 138kV transmission routes.

In the event that questions about property valuation in the study area arise, TEP will also offer Ms. Sara Baker, a commercial and residential real estate appraiser, as a rebuttal witness to discuss the impacts of transmission lines on the market value of residential properties.

In closing, the Midtown Reliability Project

is needed for reliability. The current 46kV infrastructure serving Central Tucson is 50 years old or older and is either poor or in very poor condition. It looks its age and it is at capacity creating a risk of low voltage and outages. It needs to be replaced with a system that is built to meet today's needs.

MRP is needed for better service continuity. The project will complete the 138kV loop around Central Tucson initiated with the Irvington to Kino line allowing customers in this area to benefit from another source of power should an outage occur, thus making outages shorter and less frequent.

It's needed for modernization. TEP's existing 46kV system was not designed to serve the needs of homes and businesses built 50 to 70 years ago. This project adds three times the capacity of the current system allowing for additional population growth and energy usage and supporting modern technologies that the Tucson community wants such as electric vehicles, rooftop solar, and battery storage.

It's needed for regulatory compliance. NERC reliability rules require TEP to build a transmission path from DMP to Irvington for transmission reliability purposes, and this project meets that need.

And finally it's needed for economic

growth. The project will upgrade service to the University of Arizona, Tucson's largest employer, and to Banner, each of which provides services and benefits for the entire Tucson community.

Notably, as I've mentioned, between the undergrounding and relocation distribution and communication infrastructure and retirement of the existing 46kV system, this project will remove 32 miles of aboveground poles and wires. The result is a significant net reduction in visible utility infrastructure.

Of course, as I noted, any line approved in an area that is required by local law or plan to be constructed belowground requires a concomitant finding that the local law or plan is unreasonably restrictive and the compliance with it is not feasible. This finding can and should include economic considerations.

We believe that at the close of the proceedings you will conclude that the Midtown Reliability project will help meet Arizona's need for adequate, economical, and reliable supply of power with minimal impacts to the environment and ecology of the State.

We therefore respectfully ask that you approve the requested CEC. As a resident of the Sam

Hughes neighborhood was quoted as saying in the Tucson Daily Star article relating to the MRP project, "Let progress progress." Thank you.

CHMN STAFFORD: Thank you, Ms. Grabel.

Banner Health, would you care to make an opening statement?

MS. DE BLASI: Yes, I would, Chairman.

Thank you again. My name is Michelle De Blasi of the Law Office of Michelle De Blasi, and I'm representing Banner Health.

The Banner University Medical Center Tucson campus, which I'll refer to as the medical center, provides comprehensive acute care, quaternary, and tertiary services. These services provide -- include -- provided include hospital, emergency, including life flight, and ongoing medical treatment to members of the Tucson community.

Banner is an Arizona non-profit corporation whose primary mission is to protect the health of the populations it serves through the provision of affordable health care.

As part of its mission, Banner owns and operates the medical center. The medical center is the primary teaching affiliate of the University of Arizona College of Medicine and provides special services

including comprehensive heart and cancer care, advanced neuroscience techniques, and a multiorgan transplantation program.

The medical center is one of two Level I trauma centers in southern Arizona. Diamond Children's Medical Center located within the medical center provides specialized pediatric services, including neonatal and intensive care emergency medicine and cancer therapies.

The medical center is located on approximately 30 acres of land within the University of Arizona Tucson campus at the intersection of North Campbell Avenue and East Elm Street, also known as 1625 North Campbell Avenue adjacent to the proposed site for the construction of the UA North Vine Substation.

The medical center campus contains facilities for inpatient and outpatient medical care, including four patient hospital towers, numerous ancillary medical buildings, associated administrative facilities, and a greenbelt that was constructed to provide a buffer between the medical center and surrounding historical neighborhoods as part of Banner's commitment to minimize impacts of the medical center on those neighborhoods.

The corridor selected for this project is of critical importance to the medical center and will

directly impact the use and operations of the medical center. Applicant's preferred route near the medical campus and Vine Substation would avoid impacts to the use, maintenance, and buffer between the medical center buildings and the adjoining neighborhoods, flight operations of the medical center, and future potential changes or additions to the medical center campus.

Applicant's preferred route also avoids Banner's concerns with the impacts to the project, both real and perceived, on the medical center, sensitive medical equipment and public perceptions of the medical center. Thus, Banner has chosen to intervene as a party in this case.

As the Committee knows, this development -- the development of this project has been a long process, and Banner has been involved throughout that process. To date Banner has invested over $700 million in the development of its medical campus.

As a critical resource to the Committee it is crucial to ensure there are not any issues that arise in this case that would impede the medical services and operations of the medical campus.

We have conferred with the applicant and other intervening parties on the preferred and alternative routes, and we believe the preferred route

near the medical campus as currently proposed will not impact the viability of the medical campus services and operations.

Banner will be presenting one witness, Mr. Mark Barkenbush, who is the Vice President of Facility Services for Banner. We have provided Mr. Barkenbush's professional background as our prefiled testimony summary as prefiled Exhibit BUMCT-1.

Mr. Barkenbush will testify regarding the overview and history of the medical center, the medical center's coordination agreement with the Jefferson Park Neighborhood Association, critical safety and viewshed issues related to the operation of the medical facility, electrical service provided by TEP's Midtown Reliability Project to the medical center, and the medical center support for TEP's preferred route versus alternative routes.

Mr. Barkenbush will present his testimony through a PowerPoint presentation which we provided in our prefiled exhibits as prefiled Exhibit BUMCT-2. And I believe the applicant has agreed to be so kind as to put our presentation on all of your iPads for next week.

We would like to thank the Chairman and Committee for their time and expertise for this important project and the applicant and other intervening parties

for conferring with us on the issues prior to the hearing. Thank you.

CHMN STAFFORD: Thank you.

The City of Tucson?

MR. LUSK: Thank you, Mr. Chair, and members of the Committee.

The concern that the City has in this proceeding is not related to the necessity for progress or the necessity for this project in and of itself.

What the concern the City has and is willing to discuss and defend is its ability to enforce its own code. And that's been our position throughout the entirety of this proceeding as well as our discussions with the applicant as well prior to this proceeding.

There are many things that we think will be positive about this project, and we have little concern about those things. The only thing we are involved in this -- the only reason we are involved in this particular proceeding is because under state law we're required to be as because the applicant has requested a specific factual finding that you make. And that factual finding was already discussed by Ms. Grabel, and I won't belabor it.

But the -- for the specifics of that

decision, I will clarify it's not a legal finding. We're not intending that you be judges and arbiters of the law. What the statute requires is that you make a factual finding. And that factual finding, again, is unreasonably restrictive -- that our code is unreasonably restrictive, and compliance therewith is not feasible in view of technology available.

It says nothing about cost in that particular provision. And I think that's important to understand for the Committee members because what we're not suggesting is that this is a cheap thing to do or even that we would suggest that TEP do that.

What we're suggesting is that the reasons that the City has and that its voters have put the mayor and council in power to enforce those provisions is for their -- their ability to run the City in which they want to.

And I know we're going to conflate these -- these terms in this -- in this proceeding quite a bit. Utility ratepayers, taxpayers, community members, they're all the same here in Tucson; right?

The City of Tucson has people who have decided to make certain decisions about their own city and their other right-of-way. And we ask that the Committee and applicant respect those, and that's all

we're intending to proceed with in this proceeding.

What's very clear I think what you'll find throughout this proceeding is, and I think the applicant will also say this as well, is they're not saying that they can't do this. They're not saying that under this -- if you were to make this factual finding they couldn't build the route underground.

What they're saying is it's very expensive, and that's a different thing. It's also not necessarily so that it couldn't be done financially or economically. It's just very expensive. And there are many, many things that are very expensive that we do everyday and that we do all day, and that is not the standard that the factual finding you're asked to make is. And we'll -- we'll argue that again during our own presentation.

Thank you.

CHMN STAFFORD: Thank you.

Pima County?

MS. GRABEL: Mr. Chairman, we got an e-mail from Mr. Yu from the County who said he will just be participating remotely and won't be involved in this proceeding.

CHMN STAFFORD: So he'll just be watching it?

MS. GRABEL: I think he's watching it.

CHMN STAFFORD: Okay. All right. Do we have Member Somers on the line?

MEMBER SOMERS: Yes, we do.

CHMN STAFFORD: Great. Just making sure you were here because I heard you were having some trouble calling in.

MEMBER SOMERS: So, yeah, we finally got that put aside, so I've heard the majority of the presentation so far.

CHMN STAFFORD: Okay. Excellent. Excellent.

Up next we have Underground Arizona.

MR. DEMPSEY: Hi. My name is Daniel Dempsey, and I represent Underground Arizona.

First of all, thank you for doing your job. It's not an easy job. And we're really appreciative of you taking the time to solve these issues for our communities.

Underground Arizona exists to educate you and the community about underground electric lines in Arizona. There are many misconceptions perpetuated by the utility companies that are easy to disprove.

The biggest is that undergrounding a project costs substantially more than aboveground. It does not -- it does cost more up front, but it saves

money over the long run such that the lifetime cost of the asset can be less than aboveground lines, especially in urban high-density settings.

The cost of undergrounding is not at all infeasible. We will demonstrate this beyond a reasonable doubt in our testimony.

As you know, under the line siting statute the Line Siting Committee does not have jurisdiction over underground lines. Had TEP chosen to underground where required by Tucson's laws this project would be done by now.

Such a project happened recently in Chandler where SRP paid to underground about three miles of transmission lines. It did the same thing five years earlier.

In addition, in Central Phoenix, APS is currently refurbishing and reconductoring an 11-mile underground transmission line at its own expense.

And in Tempe adjacent to ASU and Tempe Town Lake is another underground transmission line through an economically important area.

These are but a few examples of transmission lines in Arizona that were undergrounded because doing so was deemed prudent.

In Tucson we have a handful of areas of

historic or economic importance where undergrounding has been required by law since the 1980s after the Arizona Supreme Court confirmed a City's right to do so.

TEP has done everything it can to ignore these laws, is attempting to run aboveground transmission lines through the very center of Tucson and the economic heart of southern Arizona, which is important to all of Arizona in our competition with other states for tourism and business.

Its argument is that cost usurps all other considerations. Looking at the line siting factors, however, demonstrates that cost is but one factor out of nine. It is given no more importance than any other factor. And the City of Tucson's decades-old laws that TEP is asking you to override exists precisely to protect the other factors.

Ultimately, we will demonstrate that the cost to ratepayers of TEP obeying Tucson's laws is either nonexistent or insignificant. It is certainly nowhere near infeasible.

Moreover, TEP's project seeks to create a loop for redundancy. However, as we will also show, there's absolutely nothing about this project that requires this redundancy to go through so many legally protected areas.

TEP could avoid these long-protected areas to achieve its desired redundancy. Instead, it seeks to have you tell us these protected areas and the other line siting factors are insignificant compared to costs.

We ask you to deny TEP's application because none of the line siting factors favor approval. Please invite TEP to reapply once it takes the other factors seriously.

Please do not help TEP drag this process out any further than it already has. Help it follow the lead of APS and SRP in protecting Arizona's assets.

You will see that the community, including Underground Arizona, supports the project so long as it follows local laws which protect our most valuable assets.

I look forward to going through this process with you, and thank you for your time.

CHMN STAFFORD: Thank you.

Ms. Grabel, would you like to call your first panel.

MS. GRABEL: I would. Thank you, Mr. Chairman.

We call Mr. Bryner, Mr. Lindsey, and Mr. Bakken for the first panel, which is purpose in need and project overview.

CHMN STAFFORD: All right. You said Bryner, Lindsey, and Bakken for the first panel?

MS. GRABEL: Correct.

CHMN STAFFORD: Okay. All right. Mr. Lindsey, would you prefer an oath or affirmation?

MR. LINDSEY: Oath.

CHMN STAFFORD: Do you swear the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth so help you God?

MR. LINDSEY: I do.

CHMN STAFFORD: Mr. Bryner, oath or affirmation?

MR. BRYNER: Oath.

CHMN STAFFORD: Do you swear the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth so help you God?

MR. BRYNER: Yes, I do.

CHMN STAFFORD: Mr. Bakken?

MR. BAKKEN: Make it three for three. Oath.

CHMN STAFFORD: All right. Do you swear the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth so help you God?

Mr. Bakken: I do.

CHMN STAFFORD: Thank you.

Please proceed.

MS. GRABEL: Thank you, Mr. Chairman.

CHRIS LINDSEY, CLARK BRYNER, AND ERIK BAKKEN, called as witnesses as a panel on behalf of Applicant, having been affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

BY MS. GRABEL:

Q. Mr. Bryner, please state your name and business address for the record.

A. (Mr. Bryner) My name is Clark Bryner. My business address is 88 East Broadway, Tucson, Arizona.

Q. By whom are you employed and in what capacity?

A. (Mr. Bryner) I'm employed by Tucson Electric Power as the manager of siting outreach and engagement.

Q. What is your role in this matter?

A. (Mr. Bryner) For the Midtown Reliability Project, I've acted as the project manager responsible for the overall preparation of a CEC application, including all of the outreach and engagement activities, the various siting and analysis activities we've done.

Q. All right. Would you please briefly describe your education and experience for the Committee, and you're welcome to advance to the slide that contains that information as you do so.

A. (Mr. Bryner) Yeah. So I have a bachelor's in geography and a master's in bioregional planning both from Utah State University.

I'm a member of the American Planning Association and am a certified planner, a certification that I've had since 2011. I have over 18 years of experience in the electric utility industry primarily with Tucson Electric Power where I've filled a number of different roles.

For the past couple of years I've been responsible for siting. And prior to that, I spent about 10 years in maintenance and asset management with direct responsibility for the maintenance of our transmission system.

And prior to that, I spent about six years as an environmental and land use planner, a number of those years with a consulting firm doing siting projects for various utilities in Arizona as well as throughout the western United States.

Q. Thank you.

As the project manager for the Midtown

Reliability Project, please turn to Exhibit TEP-1 which is the application for a CEC.

You need to lift weights to pick up our application.

A. (Mr. Bryner) Got it.

Q. Was TEP-1 prepared by you or under your direction and control?

A. (Mr. Bryner) Unfortunately, yes.

Q. Are the contents true and correct to the best of your knowledge?

A. (Mr. Bryner) Yes.

Q. Do you have any changes you would like to make to TEP-1?

A. (By Mr. Bryner) I do have a couple.

Q. Okay.

A. (Mr. Bryner) Okay. So if you were on page 23 of the CEC application, so TEP-1 under Section 4, I'd like to revise the cost estimates that we provided.

So I want to point out that the direct cost for the transmission and right-of-way acquisition didn't change. However, after we submitted the application, we found a few areas where we didn't include all of the associated costs to move some of the existing lower voltage distribution lines underground. So that resulted in a change to the cost estimate for several of the

alternative routes.

So these costs are reflected under our witness presentation, which is TEP-8 under Slides 200 and 201. And they are also -- I know we haven't talked about the placemat yet, but they're also reflected on the placemat in front of you. So those are the correct costs as opposed to -- so I'd like to say use the costs on the placemat or on Slides 200 and 201 as opposed to the costs that you see on page 23 of the application.

And then the second correction that I'd like to make is from Exhibit G-3 of the application, so, again, the exhibit is TEP-1, and it's pages 128 through 130 of that exhibit. And those are visual simulations from key observation point 30. So those visual simulations show the perseverance of some existing overhead facilities even after the completion of the project. And our project would actually remove those facilities as part of this project.

So we have updated visual simulations from that key observation point that shows the removal of those facilities, and they're included in the witness presentation, again, which is TEP -- Exhibit TEP-8 on pages 47 through 49.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: Can you clarify which page numbers we're using? Because there's some in the middle and there's some on the side. So which ones?

MR. BRYNER: So the ones on the side are sort of a master page number. If you went through 2000 pages, it would go from 1 through 2000. So this would be the page numbers in the middle that are specific to that exhibit is what I'm talking about.

MEMBER RICHINS: Thank you.

MR. BRYNER: Yeah.

BY MS. GRABEL:

Q. Thank you, Mr. Bryner.

Please turn to Exhibit TEP-2 which is the map of the proposed project.

A. (Mr. Bryner) Okay.

Q. Was TEP-2 prepared by you or under your direction and control?

A. (Mr. Bryner) Yes.

Q. Are the contents of Exhibit TEP-2 true and correct to the best of your knowledge?

A. (Mr. Bryner) Yes. They are.

Q. Do you have any changes that you would like to make to Exhibit TEP-2?

A. (Mr. Bryner) No.

Q. Is this map the same map that is contained on

the laminated placemats that have been provided to the Committee Members and intervenors?

A. (Mr. Bryner) Yes. It is.

Q. You've noted a bit, but what other information is presented on those placemats?

A. (Mr. Bryner) so, yes, on the -- you saw the map on the one side. On the reverse side you have three visual simulations. These are from three different key observation points along TEP's preferred route Route B-4. And they're represented in three different pole finishes.

So you have in the photo on the left side, a galvanized steel finish. In the middle a painted pole finish in the color of Mohave sage. And on the right side a weathered pole finish, which the weathered finish is TEP's standard and our preferred pole color.

Below that, you have a matrix of the various routes and the factors, the evaluation criteria that TEP used to evaluate and compare one route to another that helped us to decide which routes were brought forward in this CEC application as well as which route ultimately was selected as our preferred route.

You'll see Nos. 1 through 4 and 1 through 6 on the top routes there and the bottom routes. Those are numbers that are a relative ranking of one route to another with respect to that evaluation criteria.

Q. And looking at the evaluation criteria, one of the columns further to the right says, "Plan Ordinance Compliance."

Does the ranking pursuant to that criterion assume that the City of Tucson's interpretation of the Gateway Corridor ordinance or zoning overlay and the existing university and neighborhood plans are -- is accurate?

A. (Mr. Bryner) Yes. It does.

Q. And does TEP dispute the applicability of the Gateway Corridor Zone and the Plans?

A. (Mr. Bryner) Yes. We do.

Q. All right. Thank you.

Is the information contained on this reserve side of this placemat found elsewhere in the evidentiary record?

A. (Mr. Bryner) Yes. It is.

So the visual simulations are found in TEP's Exhibit 1, specifically under Exhibit G-3 of the application. And the data found in the summary table is also found in TEP-1 under Exhibit B-2 in appendix D, which is our siting study.

Q. Thank you.

Please turn to Exhibit TEP-3 which is the testimony summary of Clark Bryner.

A. (Mr. Bryner) Okay.
Q. Was TEP-3 prepared by you or under your direction and control?
A. (Mr. Bryner) Yes.
Q. Are the contents of TEP-3 true and correct to the best of your knowledge?
A. (Mr. Bryner) Yes.
Q. Do you have any changes you would like to make to TEP-3?
A. (Mr. Bryner) No.
Q. All right. Thank you.
Moving on to Mr. Lindsey.
Mr. Lindsey, please state your name and business address for the record.
A. (Mr. Lindsey) My name is Chris Lindsey. And my business address is 88 East Broadway, Tucson, Arizona.
Q. By whom are you employed and in what capacity?
A. (Mr. Lindsey) Tucson Electric Power. And I'm the senior advisor of transmission business strategy and development.
Q. What is your role in this matter?
A. (Mr. Lindsey) I will describe the project's history, purpose, and benefits as well as describe technical and engineering components of the project.
Q. Thank you.

And will you please give the Committee a brief description of your education and experience.

A. (Mr. Lindsey) You got it.

I joined TEP back in 2006 and have 17 years of experience in the electric utility industry.

A majority of my time has been focused on the planning of both transmission and distribution systems as it relates to growth and technology integration.

I hold a bachelor's of science degree in electrical engineering from the University of Arizona and have been a registered electrical professional -- excuse me, a registered professional engineer in the State of Arizona since 2010.

In my current position, I'm focused on the strategic development of transmission and generation systems to support the company's clean energy transition. Probably more importantly for today's hearing in previous roles with the company and during the development of this project I provided direction and oversight for short and long-term planning functions related to both transmission and distribution systems for TEP.

Q. Thank you.

Please turn to TEP-4, which is the testimony summary of Chris Lindsey.

A. (Mr. Lindsey) Okay.

Q. Was TEP-4 prepared by you or under your direction and control?

A. (Mr. Lindsey) Yes. It was.

Q. Are the contents true and correct to the best of your knowledge?

A. (Mr. Lindsey) Yes.

Q. Do you have any changes you would like to make to TEP-4?

A. (Mr. Lindsey) No. I do not.

Q. Thank you.

Moving on to you, Mr. Bakken.

Please state your name and business address for the record.

A. (Mr. Bakken) Erik Bakken, 88 East Broadway, Tucson, Arizona.

Q. By whom are you employed and in what capacity?

A. (Mr. Bakken) Tucson Electric Power as the Senior Vice President of Energy Resources and the Chief Sustainability Officer.

Q. What is your role in this matter?

A. (Mr. Bakken) I oversee our generation fleet as well as system control, which includes transmission planning along with development and acquisition.

Q. Thank you.

Will you please briefly describe your education

and experience.

A. (Mr. Bakken) Yes. I have an undergraduate degree from the University of Arizona and a law degree from Arizona State University. I've been with TEP just over 25 years now with various areas of oversight and increasing responsibility over those 25 years.

As I mentioned, I currently oversee our generation fleet, which includes the clean energy transition that we're going through as well as system operations.

And then the chief sustainability officer and everything that comes along with the sustainability efforts that TEP has.

Q. Thank you.

CHMN STAFFORD: One second. You said you got your B.A. from which university?

MR. BAKKEN: From the Arizona State University.

CHMN STAFFORD: Okay. I thought you said it the other way around for a second.

So you got your J.D. from the University of Arizona, then?

MR. BAKKEN: That's correct.

CHMN STAFFORD: Okay. Okay.

MR. BAKKEN: Yep.

CHMN STAFFORD: I thought it heard it reversed when you said it.

MR. BAKKEN: Did I flip it?

MS. GRABEL: The flip is my educational background.

MR. BAKKEN: Subliminally.

CHMN STAFFORD: Please proceed. Thanks.

MS. GRABEL: Thank you.

BY MS. GRABEL:

Q. Mr. Bakken, please turn to Exhibit TEP-5, which is the testimony summary of Erik Bakken.

A. (Mr. Bakken) I've got it.

Q. Was TEP-5 prepared by you or under your direction and control?

A. (Mr. Bakken) Yes.

Q. Are the contents true and correct to the best of your knowledge?

A. (Mr. Bakken) they are.

Q. Do you have any changes you would like to make to Exhibit TEP-5?

A. (Mr. Bakken) I do not.

Q. So you're all on this panel to discuss the purpose and need for this project, give a summary of its history, and provide a project overview.

To that end, Mr. Bryner, will you please turn to

TEP-8, which is PowerPoint presentation prepared for this hearing.

A. (Mr. Bryner) I thought we were done. Okay. I'm there.

Q. Mr. Bryner, have you seen this presentation before?

A. (Mr. Bryner) Yes. I have.

Q. Was it prepared by your or under your direction and control?

A. (Mr. Bryner) Yes.

Q. Is its contents true and correct to the best of your knowledge?

A. (Mr. Bryner) Yes. They are.

Q. Do you have any revisions to Exhibit TEP-8?

A. (Mr. Bryner) No.

MS. GRABEL: At this time I'd like to move the admission of Exhibits TEP-1 through 5 and 8.

CHMN STAFFORD: I typically just admit them all at the end.

MS. GRABEL: Okay. We can do that.

CHMN STAFFORD: I'm keeping track of which ones you've covered. And I do believe the parties have already stipulated to all of TEP Exhibits 9 through 11; correct?

MS. GRABEL: That's correct. We did that.

MR. LUSK: That's correct.

BY MS. GRABEL:

Q. All right. Mr. Bryner, please begin the overview of the purpose and need for the project.

A. (Mr. Bryner) Thank you.

So the electric grid serving the Midtown area of Tucson was built in the '50s and '60s. This was during a boom in Tucson's population from under 50,000 in 1950 to just over 200,000 in 1960.

This was a time prior to the widespread installation of air conditioning, and swamp coolers were more the norm. Many appliances including water heaters and stoves were gas, and homes had few electronic devices and typically just a single television set.

And in some homes Leave It to Beaver was being watched on that television set, and you can see the actor Jerry Mathers who played Beaver, he was a nine-year-old boy at this time.

Since that time the population of the City has continued to grow, and now numbers over 500,000 with a population in the metro area of over 1.2 million. And with that growth has come additional business, industry, restaurants, and hotels.

The University of Arizona has grown, and with that more student housing and high-rise dorms. The

university hospital was built in 1971 and has grown to be a substantial community asset now known as Banner - University Medical Center, and we've got them represented here. It's one of only two Level I trauma centers in southern Arizona as we heard.

Residential growth within the City of Tucson is illustrated on the graph shown on the right screen. But beyond that the City encourages infill development. And in some Midtown areas we've seen some very high intensity infill projects.

All of this growth has continued to be served by the electric system that was built in the 1950s and '60s. The assets are both extended to the limits of what they can serve, and they're also aging as is our beloved actor Jerry Mathers from Leave It to Beaver. He's now 76. And I'll say looking at the picture there I think he's aged a little bit better than some of our equipment.

Now, I'm a transplant to the Tucson area, but Mr. Lindsey has spent his whole life here. Do you want to just elaborate on some of the things you've seen change?

A. (Mr. Lindsey) You've got it, Mr. Bryner.

So I think it's important to add that a lot of this development and modernization we're talking about here today in the Midtown area has occurred over the past

decade or two.

So Banner, which was called university medical center when I was born there in the early '80s, looked nothing like it does today as you see on the screen. And when I was a student at the U of A in the early 2000s, there were nowhere near the housing options you see with all the high-rises built in and around the university as well as in the downtown area with the easy access from the streetcar.

A. (Mr. Bryner) Thank you. So to show this in another way, on the screen on the left, you'll see a depiction of a 1950s-era home. So, like I mentioned before, lifestyles were different back then than they are today.

Now, I didn't live then, so I'm just going off of what I've heard. But homes were much smaller, many appliances were gas. And those that were not were less efficient than what we have today, but there were far fewer of them.

Again, air conditioning wasn't widely adopted yet, and evaporative cooling was more the norm.

And lastly, all the vehicles were gas powered.

Today, we find a Midtown area that's fully developed where basically the only opportunity for development is upward. And in contrast to the behavior

of the '50s and '60s electric appliance and technology use is everywhere, air conditioning is a necessity, sometimes having more than one unit per home.

Most have converted the old gas stoves and water heaters to electric, and newer electric technology is being adopted more widely, including electric vehicles, distributed generation such as rooftop solar, and battery storage.

And a very important note, the community continues to rely on the same old electric system that was built in the 1950s. We all know that nothing lasts forever. The existing system has served its purpose and it has done so very well, but it no longer meets the needs of the City and is due for modernization.

CHMN STAFFORD: Quick question with that slide. What's the mini-split?

Is that like a smaller air condition or something?

MR. BRYNER: Yeah. They're typically -- they work to cool off one room or one portion of your house. A lot of the times it's used to make it more energy efficient so that you don't have to cool the entire house down or the building or whatever. You can just cool that one, control the temperature up or down.

CHMN STAFFORD: Okay. Thank you.

MR. BRYNER: They're very nice.

CHMN STAFFORD: I think I need one of those in my house.

MEMBER LITTLE: They're awesome.

MR. BRYNER: So rather than simply replace the old electric system, which was designed to meet the needs of the 1950s, TEP proposes to upgrade the system to modern standards that will not only meet current electrical needs but the foreseeable needs too as consumer electrical usage continues to evolve in response to new technology and climate change.

So TEP will replace the old wooden poles with more robust steel poles that can withstand increasingly severe weather. These poles will support a looped 138kV transmission line that will strengthen the regional grid and provide reliability to customers both within the Midtown area and greater Tucson.

TEP will replace a number of aging 46kV substations with a single modern, fully redundant gas-insulated 138kV substation that has a footprint only slightly larger than any one of the substations that it will replace.

And TEP will not stop with the higher voltage transmission system. The Midtown Reliability Project includes upgrades to the lower voltage -- or

lower voltage distribution system as well.

The antiquated 4kV distribution system will be replaced with a modern 14kV distribution system that will be controlled through an advanced distribution management system and will provide reliability benefits to all of our residential, business, and commercial customers in the area while also meeting the electrical demand.

The Midtown Reliability Project allows us to do this once to do it right to modernize the grid, which will help Tucson thrive now and long into the future.

So the need for -- the need for a 138kV transmission line connecting TEP's DeMoss Petrie Substation, which is -- which is located near I-10 and Grant Road and the Irvington Substation, which is located near I-10 and Alvernon Road, was first identified in 2007 in order to avoid overloads on the transmission system in a contingency.

As you can see on the map, there was a fairly large gap in TEP's transmission system with the U of A right at the center of it. The new line would create a loop around downtown Tucson or around the downtown and Midtown Tucson as well as some of our growing south side communities.

So in 2021, TEP constructed what is the first phase of the transmission line by constructing the new Kino Substation connected with -- to Irvington through the Kino to Irvington transmission line. This first phase was urgently needed to bring more capacity to serve some major new development that was occurring near Kino Parkway and I-10, which is really, really close to the Kino Substation.

But that didn't fully meet the purpose of the project. So a connection between the DeMoss Petrie Substation and the Kino Substation, shown on the map, is still needed, and that's what we're here to talk about.

So I want to show you in a little more detail the conditions driving the need for the Midtown Reliability Project.

So to start, I want to orient you to the image on the screen. So this is a recent aerial image from Google Earth that generally depicts the Midtown portion of Tucson that will benefit greatest from this project. The extent of the view is bounded by 36th Street on the south, basically I-10 on the west, Grant Road on the north, and Country Club Road on the east.

A couple other things, downtown Tucson is basically in this area close to the I-10 symbol, and the U of A -- you can see the big A kind of in the middle of

the screen.

So I'm going to step back a few years and show you the grid in the Midtown area at the time the need for the 138kV line between DeMoss Petrie and Irvington was identified. If you'll recall, that was in 2007. And that was still the state of the grid in 2021 prior to building the first phase of the project between Kino and Irvington.

Now, on the screen the blue lines and pins represent power lines and substations that operated 46kV. So this is -- we've discussed this was a standard that TEP introduced in the mid-20th century. The purple lines and pins represent higher capacity 138kV lines and substations. These were built for the 21st century.

Again, on the map, I just want to point out that you can see the 138kV system kind of skirts all the way around the Midtown area of Tucson, leaving all of that still in that older, antiquated 46kV system. It hasn't been upgraded to the 138 system.

Now, here's a look at actual customer usage prior to the project. In the red and orange areas, energy use was nearly overloading the available capacity of the 46kV system.

Areas in yellow and green had more available capacity, but their reliability could still be

compromised by outages in some of the adjacent overloaded areas.

And beyond that, TEP has continued to see peak energy demand increase throughout the community.

Now let me show you the state of the grid in Midtown today. So I'll be kind of referencing the screen on the right now.

So we recently completed the first phase of the proposed transmission line loop from Irvington to Kino. If you'll notice how -- our slides are looking a little bit funky, but we -- we recently completed the -- so the transmission line, this purple line right there, represents the line from Irvington to Kino, and this is the Kino Substation.

And you see how the area around that turned from red to green. So it used to have almost no available capacity, and now it's green, which represents that it has plenty of available capacity under peak conditions.

However, you'll also notice that those blue lines and pins, the 46kV system, is still there. Because with only one point of service that -- the Kino Substation is on a radial, so it only has one point of service. So that 46kV system serves as the backup in the event that something happens. And the same conditions

that existed before that are shown on the left screen are still there today.

So the Midtown Reliability Project will complete the transmission loop between DeMoss Petrie and Irvington. It will build the transmission link from DeMoss Petrie to the proposed Vine Substation. And let me point that out. So DeMoss Petrie over to Vine. So Vine is going to be located just north of the U of A campus, and then a transmission line from Vine to Kino.

This will provide two feeds to both the Kino and Vine substations through a reliable transmission loop. And very importantly, this will -- whoops, sorry. Our animation doesn't seem to be working on the screen. But imagine, if you will, the blue lines and pins, those will all go away because we'll be able to retire that 46kV system, and it will just be the 138kV system. No need to use your imagination anymore. It's gone.

So this fully resolves any current concerns to meet customer demands under peak conditions. And it provides plenty of capacity for future growth. In the event of a transmission line outage, because of the way the system is designed, customers would experience no interruption in service.

BY MS. GRABEL:

Q. Mr. Bryner, certain opponents of this project

has proposed what they call the halfway solution in which only the portion of the line from DMP to Vine is constructed.

Is that a viable option for TEP?

A. (Mr. Bryner) So, no, it's not, not a viable option. And I'll show you that on the screen. So up on the screen right now this is a concept that's been floated most vocally by Underground Arizona who's represented here. In this scenario a transmission line would be built from DeMoss Petrie to Vine, but no connection would be made between Vine and Kino.

So both the Vine Substation and the Kino Substation would be left as radial lines, so they would just have that single source.

I'm going to turn to Mr. Lindsey so that he can provide a little bit of a more technical response as to why this is not an acceptable solution for TEP.

A. (Mr. Lindsey) Okay. So as Clark mentioned, and I think it's really important to note as we walk through this, that this proposal we see here would place both Vine and Kino Substations on radial 138kV lines.

So walking through an outage of the Irvington to Kino circuit -- the automation went quick, but you can see the line from Irvington to Kino is out in this scenario, and we would expect widespread outages until

repairs could be made. So depending on the time of year and the nature of the outage, this could be prolonged.

The example on the screen's hypothetical but it is informed by a 46kV outage we had a few weeks ago. Right now we still have the old 46kV system, as Mr. Bryner mentioned, in service as a backup, but if you'll reference the image on the left, those 46kV facilities are at capacity.

So as a result and in the outage that occurred a few weeks ago, we were unable to restore power to the entire area fed by those 46kV substations, and it resulted in a prolonged outage. So this is a real world scenario we're dealing with right now.

So without the completed loop on the 138kV side, and once these 46kV facilities you see here on the left are retired, this outage would likely result in rolling outages throughout this darkened area you see on your screen to your right with almost no way to serve the Bridges area -- you've heard us reference that a few times. That's a major commercial center shown in the dark black on this image -- until we made repairs and restored the 138kV line into service.

CHMN STAFFORD: And just for record, you're talking about Slide 18 of the presentation; correct?

MR. LINDSEY: Yes, sir.

CHMN STAFFORD: Okay.

MR. LINDSEY: So more importantly, if that didn't sound bad enough, we want to walk through an example of an outage of the DMP to -- DeMoss Petrie to Vine Station.

So in the event of an outage on the transmission line between DMP and Vine, similar to what we were discussing for Kino, the dark area shown on the map would experience widespread rolling outages until the 138kV could be restored.

And here's the big difference for us from the last example. In the very dark area around the U of A and Banner, this area would be out of power entirely until repairs were made. So this creates a significant safety concern for the community as Banner is only one of two Level I trauma centers in southern Arizona.

So expanding on this issue a little bit, the only connection to the university and Banner will be made via this new Vine Substation. We will not have the ability to provide an alternate feed even if the 46kV system was left in service. This creates an unacceptable operational situation for us and our most critical customers.

BY MS. GRABEL:

Q. So, Mr. Lindsey, if you could explain a little

bit better why can't you do the halfway solution and keep up to 46kV infrastructure for backup purposes?

A. (Mr. Lindsey) So, as I mentioned, the way the Vine Substation's configured the only connections to the University of Arizona and Banner UMC hospital will be made via that new Vine sub.

So, as we're discussing this outage here, an outage of this DMP to Vine 138kV line would subsequently -- we'd have an outage at the Vine Station. It's our only source without the loop being completed. We do not have plans or the capability to connect the old 46kV system at Vine.

CHMN STAFFORD: And you're looking at Slide 19 of the exhibit --

MS. GRABEL: TEP-8.

CHMN STAFFORD: -- TEP-8; correct?

MR. LINDSEY: Yes, sir.

CHMN STAFFORD: All right.

MS. GRABEL: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Not being familiar with your substations, is the Vine Substation existing today?

MR. LINDSEY: So, Member Gold, no, it is not. That's the proposed new 138kV to 13.8kV substation.

MEMBER GOLD: Okay. Then I have a question. I'm looking at Route 210, Aviation Parkway.

MR. LINDSEY: Okay.

MEMBER GOLD: Why is nothing considered going along that parkway to connect your two existent substations?

MR. BRYNER: If -- Member Gold, if I could jump in.

So right now, I mean, what we're showing on this screen doesn't show any of our proposed routes. We do have some proposed routes that do go along Route 210, Aviation Parkway. The lines on the map right now are just conceptual just to show that we need a connection there.

MEMBER GOLD: Okay. So the connection you're putting up is primarily to service the university and Banner, because that's where it's located; is that correct?

MR. BRYNER: So yes and no. It is to service the university and Banner. It's also to service all of the customers in this portion of Tucson.

As you saw from some of the earlier slides that I showed, we have no 138kV service throughout the entire area, and that entire area is at or over capacity and needs additional capacity to be served.

MEMBER GOLD: Understood. And the university and Banner use a tremendous amount of electricity; is that correct?

MR. BRYNER: I won't dispute that.

MEMBER GOLD: All right. Have you secured the area to build that substation?

MR. BRYNER: Yes, we have.

MEMBER GOLD: Okay.

BY MS. GRABEL:

Q. Mr. Bryner, before you move on, for the record, how many additional customers other than Banner and the U of A will be receiving reliability benefits as a result of this project?

A. (Mr. Bryner) I should -- it's just under 40,000. Sorry. I can't remember the exact number, but it's just under 40,000 business, residential, commercial customers are within this area.

Can I correct that? I just remembered. Okay. It's just under 40,000 residential customers. And then we have just under 7,000 business customers. So it's around 45,000 total customers that will benefit from this project, the U of A and Banner being two of those customers.

Q. Thank you. Please continue.

A. (Mr. Lindsey) Okay. So there's just a few last

things to mention about this solution. So kind of regrouping here.

So a few comments about maintaining the 46kV infrastructure. It drastically reduces the efficiency of this overall project as you can see. We would need to rebuild many of these existing lines and subs you see on the left there in blue within the neighborhoods to increase the ability of our 46kV system to reliably back up Midtown Tucson during this proposed -- or this 138kV outage.

Even in this overbuilt situation that we're discussing here with both a new 138kV line to Vine and a rebuilt 46kV system, we'd -- our customers would still experience outages while system operators and field crews made adjustments to the system during these types of emergencies.

This is all avoidable with completing the Midtown Reliability Project and the transmission loop between DeMoss Petrie and the existing Kino Substation.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I'm not familiar with which poles have which voltage on them, so just something to clarify it for me.

You just have an outage right now at Ina

and I believe it's Shannon where a microburst knocked down some of your poles, and they've been down for a couple of days now. What size poles are they?

What size lines? Are they 48? Are they distribution lines? What are they?

MR. LINDSEY: So, Member Gold, I believe that was a 46kV line in that area. We can confirm, but from the pictures that I saw I believe it's 46kV.

And just a quick -- I mean, all of us utilities like to come up with new voltages; right? So a quick rundown of the TEP standard voltages within town, we have a 138kV standard transmission voltage that we're talking about expanding here today. We also have an older as mentioned 46kV system that dates way back kind of to the beginning of our system. And we really termed that or call that a sub transmission system, really don't consider that a true transmission type system.

From a distribution perspective, we have both 13.8kV. Sometimes we refer to that as 14 just for simplicity's sakes. And also a 4kV system, which is really 4.16kV. And you'll hear us talk a lot about that here today with the opportunity this project brings to convert the old 4kV system to 14.

MEMBER GOLD: So the ones that are down are the 38kV. And what I've noticed when I saw them if I get

this correctly is they're wood poles, and they splinter when a microburst hit them.

MR. LINDSEY: That's typically what we see during a storm outage is the older wooden poles do fail in the micro bursts. To talk about what we're looking to do in this area related to this project, it's another opportunity to upgrade to the steel pole standard. And we don't typically see storms and microburst damage these types of facilities we're proposing.

MEMBER GOLD: That's what I needed to know. Thank you.

CHMN STAFFORD: Thank you, Member Gold.

BY MS. GRABEL:

Q. Mr. Lindsey, before you continue, has TEP restored power to all of those customers on Ina and Shannon?

A. (Mr. Lindsey) It sounds like we have not, but I am -- is that confirmed? So, yes, we have not restored to all customers in that area.

Q. Were this project in place would restoration be smoother and more quick?

A. (Mr. Lindsey) So we're talking about an outage in a different part of town. I'll step out and say if we had facilities like we're proposing in this project in that area of town, then, yes, restoration would be

smoother.

But it's very hard to just generally say that. There's a lot of particulars on our distribution system. But in general where we're looking to move towards 138kV loop transmission system, an upgraded 13.8kV distribution system, it really brings a lot of capacity to the city and allows for a lot more flexibility from an operational perspective.

Q. Thank you. Please continue.

A. (Mr. Bryner) All right. So just a couple more slides on this subject.

I just wanted to talk a little bit about some of the aging assets that we've mentioned.

So on the Slide 20, the screen on the left, this is a look at the state of the existing assets in the 46kV substations today. So the pins or the teardrops, the dark red ones, represent equipment within those stations that have an average age closer to 60 years. So that's, again, looking at transformers, breakers, major equipment and those overall averages.

The ones that are -- there are no green ones up through. But the ones that are yellow, those are -- have an average age that's a little bit younger.

But the major piece of equipment in all of these substations are the transformers. In each of these

cases, those transformer are the oldest piece of equipment in those substations, and they're all in that 50 to there's a couple of them that are approaching 70 years old.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Yes, Mr. Richins.

MEMBER RICHINS: Will all of these 46kV substations be retired?

MR. BRYNER: That's correct.

MEMBER RICHINS: And what's the environmental disposition of the land that those -- that equipment has been sitting on for quite a while?

MR. BRYNER: Yeah, so, Member Richins, good question. And we've been asked that several times throughout our public outreach process.

And so, you know, it's eight substation sites. They're not huge sites. They're about, you know, a half an acre to, you know, maybe a little bit larger in some cases. So there's been equipment there for a number of years. You know, our transformers are filled with mineral oil. Our breakers -- our older breakers are also filled with mineral oil. And we would clean up those sites. If had there been any leaks over the years or anything, we would remove all that equipment, properly dispose of that, clean up, remediate anything that needed

to be remediated, and then we would likely sell those sites.

Does that answer your question? I'm not sure if that --

MEMBER RICHINS: No. It does. It's just thinking about those sites located in the existing neighborhoods there might be opportunities there.

MEMBER KRYDER: Excuse me, Dave. You're moving away from your mic.

MEMBER RICHINS: Oh, sorry.

There just seems there might be some partnership opportunities with the neighborhoods that you're going through. Because we just did this in the City of Mesa. We upgraded our system from 4 to whatever.

But we partnered on those old sites and turned them into microparks or other, like, maybe there's a parking need somewhere, just things like that, that could help alleviate the impacts of those site -- the change of those sites.

MR. BRYNER: Sure. And some of those suggestions have come up in some of our meetings. I don't think that we're opposed. I think we're open to discussing and figuring out things that could be done with those sites that would be best for the community.

MEMBER RICHINS: But I did hear on the

record the commitment for total environmental cleanup.

MR. BRYNER: Correct.

MEMBER RICHINS: Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Mr. Bryner, do you have your or any of your members there on your team have an average loading on those 46kV substations? Are they reaching their maximum load, loading capacity?

MR. BRYNER: We do have that information. It's not in the top of my head, but it might be in Mr. Lindsey's.

MR. LINDSEY: Yeah, from an average perspective, we'll take that at break and get you an exact number.

If we could go back a few slides, though. Is that possible?

MR. BRYNER: Yeah.

MR. LINDSEY: So the slide on the left screen here shows just a pictorial look at the capacity on the 46kV system and those substations from a color perspective. So you can see in the southern part of the project closer to Kino Station we had a very limited amount of capacity in red.

And then as we move up further into

Midtown, there's a little more flexibility on the 46kV system. Again, this is very general. So what we'll do at break is get you an exact of the stations.

But this is just a pictorial look of the limited capacity on the 46.

CHMN STAFFORD: And for the record, Mr. Lindsey, you're referring to Slide 14 of TEP-8; correct?

MR. LINDSEY: Yes, sir.

MEMBER LITTLE: I don't need the average loading. The colors, then, in the areas reflect the loading on the substations?

MR. LINDSEY: Yes, that's correct.

MEMBER LITTLE: Okay. I had another question. I can't remember what it was. So --

MR. BRYNER: If I could just add, Member Little, to that. You see the green in the upper left, so those are coming out of the one -- two 138kV stations. One is our DeMoss Petrie and the other is our Tucson Substation.

MEMBER LITTLE: Right. Right.

CHMN STAFFORD: So those are not on the 46kV system. That's why they look great.

MEMBER LITTLE: I guess my other -- the other thing that I was going to say, and it's more of a

statement than a question, which is that I realize that in today's world often -- you know, people talk about putting solar on houses. And they're -- often the older systems have problems with back feeding the solar back into the grid on the older distribution systems.

MR. LINDSEY: So, Member Little, I think that's a great observation. And one of -- and we may have just breezed through it so far today. But one of the big advantages of this project is it does support additional technology.

So going back through our story here, the system was built when, you know, solar really wasn't a thought. Energy storage wasn't a consideration in any fashion from a residential perspective. Electric vehicles weren't either.

And so we do see some major limitations I would say specifically in this area on our 4kV distribution, so I know it's a little bit outside of a context of a line siting conversation, but one of the things we're trying to get across here is just how many layers of the system we're making improvements with when we're talking about this project.

So building the 138kV loop, building Vine Substation allows us an opportunity to upgrade that 4kV system to 13.8. And many of the we call them hosting

capacity studies that we've run across our system that look specifically at solar integration, those 13.8kV facilities fare much better than our 4kV.

And actually, there's even more technical limitations on what we do from a sizing perspective with the 4kV system. And so it's really just an antiquated distribution system that's served well. I mean, we like to put it down here today, but it's done a good job. But it's time to replace it with something better.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: With that we've been going for about 90 minutes. I think our court reporter needs a break. I see a lot of members of the public in attendance. I just wanted to admonish them that the ex parte rule is in effect, and they are not to discuss merits of this case with the members.

With that let's stand in recess for approximately 15 minutes.

(Recess from 2:34 p.m. to 2:53 p.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. Grabel, please continue.

MS. GRABEL: Yes, thank you.

BY MS. GRABEL:

Q. Mr. Lindsey, before we reengage with the

presentation, were you able to clarify the results of the recent outage that you discussed with Mr. Gold while we were on a break?

A. (Mr. Lindsey) Yes, I was.

Q. Will you please correct the record on the various conversations that you had?

A. (Mr. Lindsey) So a couple details about that outage. We are still making repairs to the pole line, but all customers are back in service. So I think before I stated that customers were still out of service. That was incorrect. All customers are back in service.

We still are making repairs. And a little more detail, it was a double circuit 13.8kV line, so two distribution circuits, one on top of the other, not a 46kV line. But I think the example still holds true, the old wood poles sustained damage in the storm.

MEMBER GOLD: Thank you very much. So the lines -- the customers have been restored service, your guys are still working on it. Are the streets still closed?

MR. LINDSEY: I don't believe so, no.

MEMBER GOLD: Thank you.

CHMN STAFFORD: I believe Member Somers has a question. Member Somers.

MEMBER SOMERS: Yes, Mr. Chair. How do you

hear me?

CHMN STAFFORD: We can hear you. Please proceed.

MEMBER SOMERS: Very good. I wanted to follow up a little bit on the question asked by Member Richins, which had to do with the environmental footprint of the existing system.

So eight stations that potentially are going to be replaced, could the witness tell me how old are those stations? When were those built and how old is the equipment?

MR. BRYNER: Yes, Member Somers. This is Clark Bryner. I can respond to that question.

So these substations, we've shown some of them on the screen with some relative -- well, we showed average ages of the equipment. But those stations, the oldest one was commissioned in the late '50s. And then some of them were commissioned in the '60s. I think the newest station was commissioned in the '70s, but I would have to double-check on that. But they're all 50-plus years old.

MEMBER SOMERS: And during the testimony in response to one of the questions about cleaning up the environmental footprint of the areas, they mentioned that -- the witness mentioned that there was oil

involved; correct?

MR. BRYNER: Correct. So the transformers and breakers in those stations are oil filled, and it's with mineral oil. And the mineral oil is -- prior to some of the more current, you know, uses some of that mineral oil did contain PCBs.

MEMBER SOMERS: Yeah. And that is exactly where I wanted to head with that. Is there any of the legacy equipment still in that area that contains the Polychlorinated Biphenyls or has all that been removed and replaced?

MR. BRYNER: I would have to double-check to be certain. So my prior -- one of my prior positions was in asset management and maintenance, and I left that a couple of years ago. At that time we still had three pieces of equipment in our system throughout the entirety of our system that had PCBs. So I would have to double-check and see if it's any of this equipment.

MEMBER SOMERS: Okay. And are you aware if any of these eight sites when equipment was replaced and upgraded if there was a cleanup done to remove PCBs from the area --

MR. BRYNER: I'm not aware --

MEMBER SOMERS: -- from the dirt or anything that might have contaminated?

MR. BRYNER: Sorry. I'm not aware of that. I don't know if any of my colleagues might be.

MR. BAKKEN: Member, this is Erik Bakken. As it relates to PCBs, if we become aware of a spill of oil or a leak of oil onto the soil and that spill contains PCBs, it is cleaned up immediately and to all environmental standards.

MEMBER SOMERS: Excellent.

And then the new the stations that will replace these eight obviously will not have equipment containing PCBs since federal -- I believe it's a federal regulation passed in 1979 -- sound right? -- that new equipment does not contain this carcinogen?

MR. BAKKEN: That's correct. We do not have any new equipment that contains PCBs, nor would any equipment that we install as part of this project contain PCBs.

MEMBER SOMERS: Okay. And then just going back to what Member Richins asked was is that the company if this is approved in replacing those eight old stations -- those eight stations that an environmental assessment and cleanup would be done for any type of contamination to include the Polychlorinated Biphenyls?

MR. BAKKEN: Yes. We typically do what's called a phase 1 study to understand what, if any,

contamination has occurred. And then we proceed to clean up that contamination.

Now, we might look for partners as we look for different opportunities with that property whether it's a sale or potentially some type of park opportunity, pocket park typically we call them. Yeah, exactly.

So we may look to partner with certain entities for that cleanup, but certainly it would be cleaned up before there was any public use of that property.

MEMBER SOMERS: Okay. And maintaining the environment is part of our charge on the board, so that's why I wanted to ask these questions on how these were going to be cleaned up and removal of potential legacy equipment that may or may not contain PCBs. So thank you, Mr. Chair.

CHMN STAFFORD: Thank you, Member Somers.

Ms. Grabel.

MS. GRABEL: Thank you.

BY MS. GRABEL:

Q. I believe, Mr. Bryner, it's your turn to continue with the presentation?

A. (Mr. Bryner) Yeah. Thank you. So I believe we ended up talking about the state of the existing equipment. And I just wanted to make the comparison of

what is there today to what we will have in the future.

So as opposed to having those eight aging 46kV substations along with all that equipment in need of replacement, all of that will be not replaced like in kind, rather retired. And we'll end up having the picture that's on the right-hand screen, Slide 21, with all 138kV stations, all new equipment, all to today's standards.

And in addition to that, what you're not seeing on the screen right here is we'll replace -- or we'll also retire 19 miles of 46kV lines that feed those eight 46kV substations.

All right. So just to summarize, so the Midtown Reliability Project is needed for modernization. TEP's existing 46kV system was designed to serve the energy needs of homes and businesses that were built in the mid -- the mid to late 20th century. Energy usage has increased since then with changes in technology and population. And the old system must be modernized to meet current demand.

The project adds three times the capacity of the current system, which will allow for additional population growth. It will also allow for additional energy usage that will support modern technology such as electric vehicles, rooftop solar, and battery storage.

It's also needed for reliability. The current infrastructure serving Central Tucson, as we've seen, is 50 years old or older, and it's either in poor or very poor condition. And it's at capacity, which creates a risk of low voltage or outages, and it needs to be replaced.

It's also needed for better service continuity. The project will complete the 138kV around Central Tucson that was initiated by the Irvington to Kino line, which will allow customers in the area to benefit from another source of power should an outage occur. So that would make outages shorter and less frequent.

It's also needed for regulatory compliance. NERC reliability rules require that TEP build the transmission line or a transmission path from DeMoss Petrie to Irvington. This project meets that need, and it avoids the need to build yet another transmission line in the area to satisfy that requirement.

And lastly, it's needed for economic growth. The project will upgrade the service to the University of Arizona, which is Tucson's largest employer. It will also upgrade the service to Banner - University Medical Center, which we've heard about the importance of that facility to the community. These each provide services and benefits for our entire community and region.

It will also provide enhanced energy capacity in Central Tucson that will support anticipated increases in jobs, anticipated growth. That's all laid out in our local municipal plans.

And one other thing that I can't highlight enough, it will allow us to retire those eight aging 46kV sub transmission substations as well as the lines that feed them. That won't happen immediately. It will take us probably about 10 years once we get this line in service to make all the cutovers and reconfigure the circuits and everything, but in the end that will result in a substantial change for the better in the appearance of Tucson streets, and it will also result in a substantial savings in -- in millions of dollars that our customers won't have to pay to replace or upgrade these antiquated systems.

Overall the Midtown Reliability Project will provide a timely, costly -- or a cost-effective upgrade to older systems. It will help TEP maintain affordable rates. It will increase reliability and strengthen the grid for all of TEP's customers, even well beyond the Midtown area.

Q. Thank you, Mr. Bryner.

Let's go on to Slide 23. I think it is important for the Committee to understand the long

history of this project beginning with when it was first identified in TEP's Ten-Year Plan.

So, Mr. Lindsey, I believe you're going to kick off the timeline.

A. (Mr. Lindsey) Yeah, I'd be happy to.

So you see here on the screen to your left, timeline of the project. So I'll walk through some of these -- these key milestones related to this project. So the need for the transmission line was originally identified as far back as 2007 in our Ten-Year Plan.

Originally, it was identified as a -- technical difficulties.

Originally, back in '07 it was identified as a new 138kV line from Irvington substation to Tucson substation. So I point that out as we walk through this history we're going to point out some advantages of the move to DeMoss Petrie.

Then in 2016, you can see our asset management department identified the need to replace aging equipment at a number of these 46kV stations. We've hit that a few times, but that was another milestone I would consider in the development of this project.

This analysis was then included in planning studies to determine the best path to move forward.

2018 was a big year for us. We completed a

saturation study that identified the need for the Vine Substation. You'll hear more about that study a little later in the presentation.

Also in 2018, the Ten-Year Plan moved the line termination, as I mentioned, from Tucson substation to DeMoss Petrie. So this allowed for a couple key things in this area of town. So originally we had planned, like I mentioned, to connect this line to Tucson Substation. Moving it to DMP allowed us to repurpose that 138kV connection or bay at Tucson Station to install a new transformer. So that transformer allowed us to add distribution capacity to the downtown area where we don't have many options for expansion and better serve that area of town. So that project's complete.

It also allowed us to move this connection of this line to DeMoss Petrie, as I mentioned, to better align with future transmission projects in the area.

So also in 2018 we received the CEC for the -- really the first leg of this overall project, the Irvington to Kino line.

Q. And to clarify, Mr. Lindsey, is the Midtown Reliability Project associated with the Irvington to Kino transmission line?

A. (Mr. Lindsey) Yes. That's correct. As we've been discussing in a fair amount of detail, upgrading to

138kV line improves reliability, also supports our efforts to convert to a higher voltage 13.8kV distribution system.

Q. Okay. Thank you.

Was the Irvington to Kino line approved in Case 178?

A. (Mr. Lindsey) Yes. It was.

Q. Did that line attract any intervenors?

A. (Mr. Lindsey) No. It did not.

Interestingly enough, it had a fair amount of support from the public. They saw the need. They experienced some of the reliability issues we're talking about over time. And at the time also saw all of the development coming in. If you remember the Bridges commercial development we talked about a few slides ago, they saw that coming in and really understood the need for the project.

Q. Did the Irvington to Kino project involve the construction of aboveground 138kV transmission facilities in a Gateway Corridor?

A. (Mr. Lindsey) Yes. It did.

Q. Thank you. Please continue.

Are we going to Mr. Bakken? Mr. Bakken, I guess you're picking up.

In 2022 TEP ultimately withdrew the Kino to DMP

application; correct?

A. (Mr. Bakken) That is correct.

Q. Why did it do so?

A. (Mr. Bakken) At the time we received feedback from mayor and council and concerns from other stakeholders on the first application. And those concerns were really related to the Gateway Corridors primarily.

Q. And for the Committee's benefit, what is the Gateway Corridor?

A. (Mr. Bakken) Gateway Corridors are a zoning regulation that requires some infrastructure, not all, but some infrastructure to be placed underground. Gateway Corridor designations are given to some major arterials, the largest really and busiest streets through town typically.

We have built transmission infrastructure in Gateway Corridors historically. The City and TEP today disagree on the application of Gateway Corridors to transmission infrastructure, and I think we've heard a little bit about that.

Q. Okay. Thank you.

After withdrawing the Kino to DMP application the first time, TEP and the City of Tucson collaborated on finding solutions to the concerns raised by the City

with respect to constructing the project within a Gateway Corridor Zone; correct?

A. (Mr. Bakken) That is correct. We reached out to both the city manager as well as the city attorney, set up discussions on, really, what became a weekly basis to look at different options for this transmission project.

We looked at available funding sources as well as those conversations evolved, talked about the special exception process for the Gateway Corridor regulation.

Q. Thank you. Please explain the special exception process negotiated with the City and how that process would have addressed the City's concerns.

A. (Mr. Bakken) So ultimately we developed the special exception process that includes exceptions to undergrounding transmission lines for things like railroads, major highways like the aviation highway as well as perpendicular crossings are just some of the examples that we developed through that special exception process, which is now part of the UDC.

Q. So what was the outcome of that process?

A. (Mr. Bakken) We were able to develop a number of exceptions and then have those adopted, like I mentioned, within the UDC, which we would be able to avail ourselves of if we decided to move forward with an

underground project.

Q. All right. Thank you.

So even with the special exceptions in effect, and those are circumstances, as you've described, that would allow TEP to construct aboveground within the Gateway Corridor Zone, if TEP was building a line within the Gateway Corridor, would it still have to build portions of that line belowground?

A. (Mr. Bakken) Yes.

Q. Did TEP and the City attempt to find ways to fund that belowground construction?

A. (Mr. Bakken) We did.

In collaboration with the City through those conversations we looked at a number of different options, customer rates. We looked at franchise as well as private contributions or third-party contributions. We talked about shareholder funding. We also discussed the possibility for government funding. We looked at another mechanism within the City called the utility tax. And then we also looked at undergrounding districts.

Q. All right. Thank you. Let's take each of those in turn.

First, you mentioned the option of funding the underground portion of the project by customers through rates.

Why is that not a viable option?

A. (Mr. Bakken) Undergrounding EHV, or extra high voltage, which the 138 voltage is classified as, the cost of doing that is really prohibitive. The business model -- our business model really is based on overhead construction from inception, from the inception of the company. We've been what's called an overhead company.

The costs are passed through to customer rates, and those costs are passed through the rate kind of mechanism or rate process to customers.

And in order to keep costs down, anytime we look at an infrastructure investment, we're really looking for the most cost-effective solution. We really intend to and strive to maintain affordability for all customers.

Q. Thank you.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: May I pose a question?

CHMN STAFFORD: Certainly.

MEMBER KRYDER: Let's say going ahead that the decision was taken for a particular section, whatever it might be, to underground it, and I think I just heard you say that the cost under the current business model would be to pass that to the ratepayers; is that correct?

MR. BAKKEN: That would typically be how an

investment in infrastructure is funded or paid for. However, we have and I think we showed it in the opening statement a guideline from the Arizona Corporation Commission, which says that in most circumstances, in particular for reasons of aesthetics, that those costs would not be passed through to customers.

MEMBER KRYDER: Who would pay for them then, just out of TEP's pocket?

MR. BAKKEN: Well, that's -- that's what we're here to talk about today. If we were forced to go underground, I think we would, one, look for that special exception; and, two, potentially, as, you know, we've talked about, look for other funding mechanisms. And if none of those were available to us, potentially go to the ACC to look for or the Arizona Corporation Commission to look for an exception to their guideline and to their policy.

MEMBER KRYDER: I'm showing my ignorance because that's truly what it is. Are there cases where if it was passed to ratepayers, is it to the entire customer base of TEP or would it be to the selected ones who are kind of on the route, or how is that all determined? Fill me in.

MR. BAKKEN: The way that the ratemaking process works today is that that cost would be passed

through to the entire rate base. And one of the concerns obviously we have as we look at this project is that where we're seeing the most -- where we're seeing concerns coming from stakeholders are from discreet neighborhoods along the route.

And so to benefit those customers at the expense of our entire rate base is -- or our entire customer base is something that we're concerned about.

MEMBER KRYDER: As a TEP customer, I'm concerned about it too, but that's aside from the specific point here. But I appreciate the information that you have.

So did I hear in that that the customers who were having this directly impacting in their businesses and homes and so on could form their own taxing district or something like that to pay for it? Help me understand that too.

MR. BAKKEN: Sure. It's an underground special tax district created by or mechanism of statute. And neighborhoods or others, a particular area, is able to initiate that special taxing district, form that special taxing district, and then pay additional incremental taxes to fund undergrounding of either distribution or even transmission infrastructure within that special district. It can be residential, but

commercial is also able to utilize that -- that mechanism.

MEMBER KRYDER: So this would be directly on your real estate taxes, or is it put into your TEP bill and paid out this way?

How does that all work?

MR. BAKKEN: I believe we have never done it. We looked into it for customers and committed to assisting those customers if they decided they wanted to move forward with that. I believe it's just in addition to a property tax.

And then as those taxes are collected, it goes towards the funding of the underground costs.

To date, we have not had anybody approach us with an interest in funding one of those special tax districts.

MEMBER KRYDER: Thank you.

Is it, like, a bonded thing?

So we're looking at 50 years, or is it 10 years, or how does that all fit together?

MR. BAKKEN: I believe there is a time limitation. Ten years was the time frame that you would pay that special tax or that incremental property tax for funding or reimbursing us for the cost of undergrounding.

MEMBER KRYDER: And how is the base of that

figured?

Is it so many feet from the buried cable, or is it by customer, or what's all that?

MR. BAKKEN: It's really at the discretion of those that wish to form or initiate the process for forming a special underground district. So it can be as few or as many customers along a particular route or that are impacted feel they're impacted by utility infrastructure to form that district.

MEMBER KRYDER: So --

MR. BAKKEN: It's an opt-in I guess I would say process.

MEMBER KRYDER: So it's an opt-in.

So that if I was, just to pick on your biggest customer here, Banner, I propose this, and I'm David homeowner across the street there on Elm Street, I could say, well, gee, Banner's got lots of bucks, let's have them form the district and increase their taxes and I don't have to opt-in, or is it everybody gets opt-in who is a user or how -- again, I'm truly confused by this.

MR. BAKKEN: It's not everybody opt-in. It's a -- if I understand correctly -- and, again, we have not gone through this. We looked at it and offered to assist anybody that wanted to avail themselves of it.

But it would be in our case a neighborhood that opts in. Certainly businesses could opt in as well.

And if you had a large commercial entity that was paying higher taxes, they would be funding more of that undergrounding cost than, say, the average residential customer.

MEMBER KRYDER: Okay. I appreciate that. And I appreciate also that you haven't really gone through the process and so on so you don't have all the answers. I'll stop talking and taking time, but I needed at least this to kind of get my brain around what was potentially going on. Thank you very much, Erik.

MR. BAKKEN: Yeah, sure.

BY MS. GRABEL:

Q. And, Mr. Bakken, just to correct the record for a minute, you stated that the purpose of this proceeding is to find a funding mechanism for undergrounding.

That's not what TEP is proposing to do today, is it?

A. (Mr. Bakken) No. We're looking to site -- find the appropriate path to site the transmission line.

Q. Okay. Thank you.

And so if the Committee chooses a route that would require undergrounding by the City of Tucson, and under its interpretation of the law, it would need to

make a finding that allows it to preempt that local ordinance; is that correct?

A. (Mr. Bakken) That is correct.

Q. And if the Committee chooses to adopt the route but declines to make that finding, we're either going to have to go to the Commission to see if we get an exception to their policy or risk not building a project and getting the reliability benefits of that project; is that correct?

A. (Mr. Bakken) That does seem to be the position we would be in. That is correct.

Q. Okay. Thank you. And I --

MEMBER HILL: Mr. Chair, I have a question.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I just to clarify, so the Irvington to Kino Substation -- and I just want to understand a little bit of the special exception process that you went through.

Did you use the special exception process to go to actually site that with the City?

Because it's all aboveground; right?

MR. BRYNER: I guess any of us were fighting over it.

So the special exception process to the Gateway Corridor ordinance did not exist at the time the

Irvington to Kino project line was constructed in 2021 or at the time that it was approved in 2018. That didn't come about until 2023, I believe --

MEMBER HILL: Okay.

MR. BRYNER: -- in concert with these discussions and trying to find a solution.

MEMBER HILL: And then to clarify, the Irvington to Kino Substation siting and construction through the gateway areas, did the Gateway Corridors exist and prohibit aboveground infrastructure or -- at that time, or was it okay at that time?

I'm trying to understand how -- how everybody, the parties, got to a place where this was built aboveground in these corridors without a special exception process it sounds like, so that wasn't it.

How did we get there?

MR. BRYNER: You know, I'm actually going to pass this one off to Mr. Lindsey because he was more in the picture at that point.

MR. LINDSEY: So, Member Hill, it's a good question. I don't think we had -- I don't -- I guess I can't weigh in on interpretation of the Gateway Corridor as it relates to Irvington to Kino because it just didn't come up as a concern during the hearing or during any conversations with the City.

So we built the line overhead.

MEMBER HILL: Okay. Thank you.

MR. BRYNER: If I could add just one fact. So the Gateway Corridor Zone was adopted by the City in 1982, so it's been around for quite a while.

MEMBER HILL: And maybe this is a question for the City at a later point because you guys don't know the City ordinances inside and out.

But since 1982, has it always had a prohibition against overhead -- I don't know what exactly the -- the infrastructure, if you want to call it that or some --

MS. GRABEL: Member Hill, if I may interject. I think this may be a legal interpretation, and it's kind of the subject of the dispute between the City and TEP.

But the ordinance has had the same language, as I understand it, and I'll defer to the City on this, since it was adopted, and utility infrastructure has been built aboveground during that time.

But the correct interpretation of the ordinance is the subject of the superior court proceedings.

And I will let Mr. Lusk weigh in if I've said anything incorrect.

MR. LUSK: Thank you.

I think we can correct a little bit of what the confusion is with our witness Mr. Castro --

MEMBER HILL: Okay.

MR. LUSK: -- who is a planner with the City, and he can provide a little bit of additional information.

MEMBER HILL: The context for that?

MR. LUSK: Yes, absolutely.

MEMBER HILL: Okay. And then, Ms. Grabel, you said that the Committee here today has kind of two choices. One, we can approve a corridor and indicate that in our findings -- I'm not going to find all the words, but in our findings we understand or we found that the burden of doing this is not economical and the project should proceed overhead basically, or we can identify a corridor but not have that finding, and then the project may not proceed at all.

But I see another pathway here. I see the superior court decision may be making some decisions about this. Can you --

MS. GRABEL: So I think the problem with that, Member Hill, is that we don't yet have a superior court decision, and that decision will probably be appealed, and the appellate process taking a really long

time, and we have 2027 in-service date.

And so I don't think we can let that legal process play out to its ultimate outcome without risking the project time line, and time is of the essence.

Do you have something you want to add, Ms. Hill?

MS. HILL: Thank you, Member Hill, Mr. Chairman. Thank you, Ms. Grabel.

Also, too, I want to be clear that the -- and, Mr. Lusk, I think would agree with this that the --

MEMBER KRYDER: Can you move closer.

MS. HILL: I'm sorry.

-- that I think Mr. Lusk would agree with this is that the superior court litigation really only applies to the issue of the Gateway Corridor and the UDC applicability.

To the extent that the University Area Plan is determined to require undergrounding, that in and of itself has nothing to do with the current pending superior court litigation. And because, as we said before, the location of the Vine Substation, the Committee would have to make that finding for those plans absent an agreement by parties here today.

MEMBER HILL: Okay.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: This was from Ms. Grabel or Ms. Hill. I'm not sure which one.

You're using terminology that I guess some people are familiar with. I'm not.

MS. GRABEL: Okay.

MEMBER GOLD: And I've looked at hundreds of exhibits. I have a stack of papers that's got to be a foot and a half thick with everything in it.

I don't remember seeing a map that says these are the areas where you must go underground by law.

Is there such an exhibit that we can look at that says these are the areas that you have to go underground by law?

MS. GRABEL: We do have exhibits that are contained in the witness PowerPoint presentation that Mr. Bryner will go over in a later panel, I think the next panel, that show where the City of Tucson currently would require us to go underground and where the University Area Plan and the Sam Hughes Neighborhood Area Plan and others that could require undergrounding if they have the force of law, which we dispute, and how they intersect with the routes.

So, yes, you will hear testimony to that regard in the upcoming panel.

MEMBER GOLD: That will make our lives a little easier if we can see that.

MS. GRABEL: Certainly.

MEMBER GOLD: We can see the rationale with what you're doing.

The second question, what's your relationship with the railroad?

MS. GRABEL: So they are a stakeholder to this proceeding because some of the lines -- they're an impacted -- they're not a party, but some of our lines impact their railroad.

MEMBER GOLD: Have you considered using their right-of-way or along their right-of-way to run their lines?

MS. GRABEL: So Routes 5 and 6 do contemplate that. And this is something Mr. Bryner can talk to later.

The concern we have with the railroad rights-of-way is we have not been able to get an affirmative answer from them whether we would be allowed to construct.

And so if you decide that route, we would ask that you choose an alternate route as well in case the railroad doesn't let us.

MEMBER GOLD: Is there a reason why the

railroad wouldn't let you?

MS. GRABEL: I've reached out to them and asked them, and I just haven't received an answer back, so I don't know the answer to that.

MEMBER GOLD: Thank you.

MS. GRABEL: Certainly.

CHMN STAFFORD: Ms. Grabel.

MS. GRABEL: Yes.

CHMN STAFFORD: Would condemnation be an option then?

MS. GRABEL: I will let Mr. Bakken answer that question because I think that's a business decision.

CHMN STAFFORD: It guess it depends if it's economically feasible, I guess; correct?

MS. GRABEL: So to condemn I -- yes.

And I'm not sure actually as a matter of law if you can condemn railroad property, but, Mr. Bakken.

MR. BAKKEN: That would be my concern. I can't say in my experience that we have ever encountered that situation. But I do know that the railroads have certain privileges that other property owners don't have.

So whether or not as a utility we would be able to condemn a railroad property, I'm uncertain as to whether or not we have the ability to do that at this

point.

CHMN STAFFORD: But you could condemn other property that's outside of their right-of-way alongside it theoretically?

MR. BAKKEN: Theoretically, certainly condemnation is a last resort, one that we don't like to necessarily avail ourselves of. But theoretically it could be a possibility.

CHMN STAFFORD: All right. Thank you.

MEMBER RICHINS: Mr. Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: First, I would pay good money to watch a railroad and a utility go at it in a condemnation process. I mean, that should be on ESPN, seriously.

MR. BAKKEN: The Ocho.

MEMBER RICHINS: Seriously. Good luck with that.

Mr. Lusk, when you're -- will you prepare -- your witness is a planner; correct?

MR. LUSK: That's correct.

MEMBER RICHINS: To the issue that Ms. Grabel brought up on area plans being enforceable, can you find out if those area plans are part of your general plan. Which is ratified by voters?

I'm just curious as to the Sam Hughes Area Plan and the University Area Plan.

MR. LUSK: Sure.

MEMBER RICHINS: Sometimes those find themselves into general plans, and general plans are approved by voters, which gives them a little bit of heft over a -- sometimes there's less formal plans that are done.

So I just want to understand where those plans sit in the legal hierarchy of your planning department.

MR. LUSK: Sure. If I may, I think I can tell you that they're legislative in nature at this point. I can verify that to be sure. But our general plan is adopted by the voters, and the specific plans or area plans are legislatively adopted.

MEMBER RICHINS: Are they found also in the general plan, general area plans?

MR. LUSK: So I would have to -- I would have to check to be sure. But I don't know for -- I don't believe they are, but I can check just to have -- and have Mr. Castro --

MEMBER RICHINS: That would be great. Have him be prepared to discuss the legislative route that those were -- that those took.

MR. LUSK: Of course. Yes, sir.

MEMBER RICHINS: The other question I had was getting at the undergrounding cost number.

So on page 11 or page 29 of the ginormous document, right, page 11 of the application, it talks -- it cites a -- some cost estimates from SRP and APS. Your consultant says that the cost estimates are consistent in your application here.

But you use an example of a route that was estimated to cost 17 million, which later to underground it was going to cost 87 million, so $67 million more. By my math that's a factor of five. And I've heard that it's more expensive by a factor of 10 and now by 14 to 22.2.

So I'm not sure what numbers we're using for what's the actual cost of undergrounding, because your example is five, yet you've gone as high as 22. So I just -- what are the conditions that make that --

CHMN STAFFORD: Member Richins, I believe they're going to address that in the last panel when they have the expert.

MS. GRABEL: Correct. We've hired Sargent & Lundy to do that analysis specific to this case, which is the 14 to 22.2 times number.

MEMBER RICHINS: Got it. Thank you.

That's all I had.

CHMN STAFFORD: Ms. Grabel.

MS. GRABEL: Okay. Thank you.

BY MS. GRABEL:

Q. I think when -- before the Committee began asking questions we were talking about the variation options that the TEP and City explored to potentially fund the underground construction of the MRP project, and you had begun to talk about why utility rates wasn't an option.

Do you have any concerns that agreeing to include the cost of undergrounding the project in utility rates would set a precedent that could be used to require the undergrounding of future transmission projects?

A. (Mr. Bakken) Yes. We do have that concern.

And, in fact, we did some analysis on undergrounding all projects in the Ten-Year Plan, which I believe Mr. Lindsey had referenced. And the results of undergrounding those projects in that Ten-Year Plan was a cost of 2.5 billion or a 20 percent increase in rates, which translates to about 25 to $26 per month per customer.

In fact, Tucson Electric's power services remained remarkably affordable, costing less than -- on an inflation-adjusted basis costing less than it did

25 years ago. TEP's residential electric rates have increased about approximately 1.9 percent per year on average over the last 25 years. The average annual inflation rate over that same time period was about 2.5 percent.

So you can see adding that type of additional cost for undergrounding projects into the future would put a significant strain on affordability for our customers.

Q. And, Mr. Bakken, that $2.5 billion relates to only undergrounding the projects in your Ten-Year Plan. There would be additional transmission projects not included in this year's Ten-Year Plan; is that correct?

A. (Mr. Bakken) That is correct.

Q. So that number would only increase?

A. (Mr. Bakken) Yes. It would likely increase as we continue to move through the clean energy transition that we're going through today and having to build transmission in order to access additional clean power.

Q. Okay. Thank you.

Does TEP face any other capital investment needs that are going to increase utility rates in the coming years?

A. (Mr. Bakken) Yes.

You know, we've really got to think about how we

allocate resources to capital infrastructure and balance that allocation between generation, like I mentioned, as part of the clean energy transition looking at things like wind, solar, solar-plus-storage.

We're also looking at potentially additional natural gas within our portfolio with the ability to eventually burn a cleaner fuel source, something like hydrogen. We've also got to balance that with transmission as we've been talking about today.

And then obviously we mentioned the issue that we had -- the outage that we had on Ina due to a micro burst. We've got to ensure that your distribution facilities are also as reliable as possible.

And that becomes even more in focus, I think, today potentially than it has been in the past as we look at wildfire mitigation efforts and the investments we need to make to ensure that our system is as robust as possible related to the potential for wildfires.

You know, as we look at all of those kind of demands or how we would allocate funding, TEP expects to invest approximately 3.5 billion over the next five years to keep our service safe, reliable, affordable as we've been talking about for all customers, everybody within the customer base and not just specific groups.

And, you know, we really think that that is

critical as we move through this clean energy transition and see the various demands that we have for investment and for funding.

Q. So if TEP were required to underground transmission projects, that $3.5 billion would almost double; correct?

A. (Mr. Bakken) Yes.

Depending on how far out you went, it could certainly double.

CHMN STAFFORD: I have a quick question on that.

That $3.5 billion investment, is that for both -- does that include generation transmission and distribution investments?

MR. BAKKEN: It does. Yes.

BY MS. GRABEL:

Q. Is affordability of TEP rates a concern to the company?

A. (Mr. Bakken) Yes.

As I mentioned a few times, affordability is a key factor in how we look at the investments we're making and the service that we provide.

TEP has a relatively high percentage of low-income customers close to I believe it's 20 percent or below the poverty line. So we need to ensure that

we're maintaining affordability so the customers aren't faced to make tough choices about paying for basic needs.

Also, I think we've talked a little bit about economic development and lower rates certainly allow us to be competitive when we're attracting new customers and do that in order to support economic development within the region.

Q. So would you agree, then, that it is important to mitigate rate increases where possible?

A. (Mr. Bakken) Yes. That is important.

Q. Does TEP have any concerns about asking all of its customers to pay to underground a line purely for the aesthetic benefit of certain neighborhoods that object to its aboveground construction?

A. (Mr. Bakken) Yes.

Q. And I know you talked about the Arizona Corporation Commission's policy with Member Kryder, so I won't ask you to do that again.

What about shareholder funding, why was shareholder funding not a viable option?

A. (Mr. Bakken) As you might expect, shareholders expect a return on their investment. This return is really set by the Arizona Corporation Commission as part of that ratemaking process that we were discussing earlier.

Shareholders are willing to invest in a company based on a reasonable rate of return, which, again, is set by the Arizona Corporation Commission. Investing in infrastructure without a return is not really sustainable and would eventually lead to higher rates for all customers.

Potentially our credit rating would suffer, borrowing costs would increase, and then those costs would be passed through that ratemaking process to customers.

Without shareholders willing to invest in TEP or banks were unwilling to lend money to TEP we would not be able to maintain the safe, reliable, affordable service, let alone successfully kind of move through this energy transition to make the investments that we need to get there to be successful in the transition.

Q. Thank you.

You also mentioned that TEP and the City have explored funding the cost of undergrounding through private parties.

Can you please elaborate on that?

A. (Mr. Bakken) Yes.

As we had some of those conversations with the City, we were looking at I think I mentioned a number of different options. One of those was private

contributions or third-party contributions.

We discussed potentially the U of A or Banner contributing to the undergrounding costs that we were facing at the time or that we were looking at the time. And in those conversations it was either determined that those parties were unwilling or unable to make those contributions.

Q. Okay. Thank you. And I know you explored with Member Kryder the creation of an underground district.

Did I understand your testimony correctly that you did explore that option and talked to certain neighborhoods about it, but they rejected the idea?

A. (Mr. Bakken) We certainly let neighborhoods know that this option was available to them, and, like I mentioned, have now been approached and that we would assist really in helping to set up those special undergrounding districts.

To date we have not been approached by any neighborhood, any individual, any commercial entity to move forward with the undergrounding district option.

Q. Thank you. You mentioned government funding as a potential resource.

What were the results of exploring a government funding option?

A. (Mr. Bakken) We looked at a number of different

options related to federal funding, state funding, and city funding, whether or not there might be some mechanism or fund out there that we could use to help pay for some of the undergrounding that may be necessary.

As we looked at those options, did not find anything that this project particularly would qualify for, any of those kind of government funding options that might be out there.

Q. In the end TEP and the City explored funding the underground construction of this and potential future transmission projects through an expansion of the utility franchise; is that correct?

A. (Mr. Bakken) That is correct.

Q. So by way of background what is a utility franchise?

A. (Mr. Bakken) So a franchise is an agreement that we have with really any municipality that we operate in, in this case City of Tucson, that allows us to use their rights-of-way for utility infrastructure.

Q. Does TEP make any other payments to the City that could have been used to fund the underground construction of transmission projects?

A. (Mr. Bakken) Yes. There is also a utility tax that is part of, I believe, the UDC. And we collect that utility tax from our customers. We serve as a

pass-through. That money then goes to the City, I believe, as part of their general fund.

Q. Why wasn't the utility tax a workable option?

A. (Mr. Bakken) As we talked about the utility tax with the City, it's a very complex mechanism. And the ability to amend the utility tax we found just to be something that was not workable with the City.

And as you might imagine, you know, really two reasons: One, the complexity and, two, nobody wants to raise taxes. And so for those two reasons it was determined not to be a viable option.

Q. So how did TEP and the City propose to use the franchise agreement to fund the undergrounding of the transmission lines?

A. (Mr. Bakken) So as we talked about, the franchise, we determined it to be the best option really for meeting both TEP's goals as well as the City's goals. Those goals include preserving the Gateway Corridor along with funding for aspects of the City's Climate Action Plan.

So part of the incremental funds collected through the increase in the franchise fee would be used for undergrounding utility infrastructure with a portion of it being used to allow the City to move forward with initiatives within its Climate Action Plan.

Q. Did the proposed franchise agreement require action from Tucson citizens?

A. (Mr. Bakken) It did and does require a vote of approval from Tucson residents.

Q. And did the undergrounding proposition, I believe it's Proposition 412, go up for election?

A. (Mr. Bakken) Yes.

We moved forward with a special election. Ultimately Proposition 412, which included an increase to the franchise fee, was defeated.

Q. How did TEP proceed with the project after the failure of Proposition 412?

A. (Mr. Bakken) At that point, we didn't see really any other viable options but to come back to the siting Committee, and that's why we're here today to look at the potential for overhead routes to make the connection between Kino to Vine to DMP.

Q. Okay. Proponents of undergrounding point to Salt River Project's use of an aesthetic fund to pay for the construction of underground transmission lines.

Does TEP have such a fund?

A. (Mr. Bakken) No. We do not.

And, in fact, it's interesting SRP doesn't pay a franchise fee. They don't have a utility tax. But the aesthetics fund is an amount that they're able to recover

from SRP ratepayers in lieu of a franchise fee or a utility tax, that it dedicates those funds to the cities for use at the City's discretion associated with utility projects. And I believe that's the one -- and the mechanism that they used in Chandler. And really those are for beautification, but they could also be -- those funds could be used for undergrounding as well.

Q. All right. Thank you. Does --

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Member Mercer was --

MEMBER MERCER: Go ahead.

MEMBER GOLD: I guess she wants me to go first.

MEMBER MERCER: Go ahead.

MEMBER GOLD: What was proposition --

MEMBER KRYDER: Closer to the mic, please.

MEMBER GOLD: What was Proposition 412?

MR. BAKKEN: So Proposition 412 was a special election that looked at revising -- I would say modernizing the franchise that we have on the books today to include an increase in that franchise fee that, like I mentioned, would be dedicated in part the majority to undergrounding infrastructure. But it also had a portion that was carved out for the City to move forward with

climate action initiatives under their Climate Action Plan.

MEMBER GOLD: So this was a City of Tucson proposition?

MR. BAKKEN: Yes, it was.

MEMBER GOLD: Did it affect TEP rates?

MR. BAKKEN: It would not have affected TEP rates as they're approved by the Arizona Corporation Commission. But the way that the franchise fee works is that we collect it from customers and then pass it through to the City. So that portion of it on our bill would have increased.

MEMBER GOLD: So the rates for Pima County in general, which you provide electricity to Pima County as well, would also go up, or according to that proposition would it have just have affected Tucson?

MR. BAKKEN: It would just have affected the citizens and residents of Tucson.

MEMBER GOLD: So the residents of Tucson under that down?

MR. BAKKEN: That is correct.

MEMBER GOLD: That resolution would have allowed them to underground all these lines that are in question?

MR. BAKKEN: It would have provided a

funding source for this line and potentially for future lines.

There was also some language, if I remember correctly, that if a committee that was set up as part of that agreement determined that they had other priorities or other lines that needed to be underground, they could use the funding for that as well. But it would not be used to underground every transmission line within the City of Tucson.

MEMBER GOLD: But this was turned down by the voters of Tucson?

MR. BAKKEN: That's correct.

MEMBER GOLD: That's the reason you're here today?

MR. BAKKEN: That is the crux of the reason why we're here today, yes, to --

MEMBER GOLD: So the City of Tucson needs the power, but they declined to pay for the undergrounding of that power.

Am I summarizing that correctly according to Proposition 412?

MR. BAKKEN: I would say that the residents of Tucson determined that paying for undergrounding and maintaining affordable rates was their priority, and that was shown in the vote.

MEMBER GOLD: Okay. So let me rephrase that. So the residents of Tucson had an opportunity to have underground rates which would -- underground their lines which would have bypassed this Committee, but their rates only would have gone up for that privilege, but they declined to vote for that; they turned it down?

MR. BAKKEN: That's correct.

MEMBER GOLD: That's what I needed to know. Thank you.

MEMBER HILL: Mr. Chair, I have a follow-up question.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: Mr. Bakken, was the vote that Tucson citizens took exclusively for the cost of undergrounding transmission, or were there a lot of other things in that ballot measure?

MR. BAKKEN: There were a number of other components of the ballot measure, the franchise itself, some other changes that we made to the franchise, but certainly as it was talked about leading into the election, there were two kind of major factors: One using funding for undergrounding transmission and the other using funding for moving forward with the City's Climate Action Plan, people coming down on both sides of those issues.

MEMBER HILL: Because my recollection of this just following it in the news was that it was a little bit confusing to folks because there was a lot of Climate Action Plan things that would be funded in it.

Do you remember -- and, really, what I'm getting at is that I don't know that we can conclude that Tucson voters turned this proposition down because of the cost of undergrounding.

My recollection is that there were a lot of other climate action pieces that were somewhat controversial in the Committee, and it made it harder for citizens to know exactly what they were voting on. It wasn't just one thing.

So the Climate Action Plan pieces that would be funded with this, can you characterize what those might have been?

MR. BAKKEN: As we looked at the Climate Action Plan with the City became part of our conversations, there were areas that where we aligned things like cooling centers in extreme heat situations, looking at the potential for battery energy storage in certain areas of the City.

Like I mentioned, there were really kind of two factors, I think, that went into people's decision or the City of Tucson residents' decision to vote either for

or against.

MEMBER HILL: Yeah.

MR. BAKKEN: One was the transmission. Certainly that was a big area of conversation, and then as well as the Climate Action Plan.

MR. LUSK: Mr. Chair, I apologize for interrupting. I didn't want to belabor it, but I think we can just admit through -- with the Applicants a stipulation we could admit the resolution as voted upon, if that's helpful.

CHMN STAFFORD: Is there already an exhibit, Ms. Grabel, or not?

MS. GRABEL: It is not, Mr. Chairman. We would need to admit that, but we can do so.

CHMN STAFFORD: Well, it seems when you put on your direct you can have your witness introduce it and add it to your exhibits.

MR. LUSK: Certainly, Mr. Chair. Thank you.

CHMN STAFFORD: Thank you.

I have a quick question. When we're talking about --

MEMBER HILL: I have just one last comment.

CHMN STAFFORD: Well, one quick question here.

So you were talking about the franchise and it was going to be -- it was going to pay for -- it was going to raise the franchise fee from TEP, and that would enable the City to spend that money on a number of environmental improvements and undergrounding; correct?

MR. BAKKEN: That's correct.

CHMN STAFFORD: Okay. My question is in TEP's rates you operated all throughout Pima County in a number of cities; correct?

MR. BAKKEN: That's correct.

CHMN STAFFORD: All right. Now, do the franchise fees, are they collected only from the customers in the cities, or are they added to the cost and spread out among all ratepayers?

MR. BAKKEN: Typically, we have a franchise fee with each municipality or each town that we operate in.

CHMN STAFFORD: Well, I get that, but how is that collected from the ratepayers through your rates?

MR. BAKKEN: It's collected -- there's a designation. We're able to designate those customers that are within the City of Tucson or that are within the City of Marana or that are within the town of Oro Valley and then collect whatever that franchise fee is, whatever the agreement is with that entity, on the bill that we

send to our customers.

CHMN STAFFORD: Okay. So if I'm a resident of Green Valley, I'm not paying for the franchise fee for the City of Tucson?

MR. BAKKEN: That's correct.

CHMN STAFFORD: Okay. Thank you.

Member Hill, you had one more question.

MEMBER HILL: Thank you.

Mostly that I don't want -- I want to say that I thought the franchise agreement approach was an elegant solution that the City and TEP came forward with that -- that had it passed could have addressed a lot of things.

But I also think that sometimes when we put propositions in front of the public, they have a hard time tracking things that have lots of moving parts and pieces.

And so I -- I just don't -- I don't want us to conclude that because the residents of Tucson turn down a proposition that it was about the cost of undergrounding. I do think that there was a lot more going into that decision.

And I want to compliment the folks here on trying to create an elegant solution because I thought it was really creative. And it's unfortunate it didn't

pass, but I just don't want to conclude that it was just the underground costs that was a concern to residents.

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: So I'm a little confused here. So Proposition 412 was turned down, so we all understand that.

My understanding was that the people of Tucson voted it down because it would only benefit -- the underground lines would only benefit certain neighborhoods; is that correct?

And everybody in Tucson would have had to pay for it for the improvements or the underground, but it would only benefit certain neighborhoods, and that's why we voted it down.

MR. BAKKEN: Certainly that -- that was a concern, and that's why we attempted to craft -- and thank you very much for the comment, Member Hill -- attempted to craft a funding mechanism that would not only apply to a project like this but could also apply to projects going forward.

And then to the extent that there were any additional funds or extra funds, we could apply it to other neighborhoods, other projects, other overhead existing lines so that we had the ability to ensure by

setting up a committee that it wasn't just benefitting one part of the City of Tucson, that we had the ability to allocate funds to various parts, various projects within the City.

MS. GRABEL: Mr. Chairman, if I may.

CHMN STAFFORD: Yes, Ms. Grabel.

MS. GRABEL: I think that Mr. Lusk's suggestion of putting Proposition 412 into the record is a good one, and I think that that will explain everything that it was to pay for.

And I think it's very difficult for Mr. Bakken because he has no personal knowledge of why the various voters decided to turn it down. Perhaps we could just kind of let that document speak for itself, and everyone can draw their own conclusions about the meaning of the failure of Proposition 412.

CHMN STAFFORD: Right. I think that's an excellent suggestion, because it seems that the undergrounding thing might have been an unpopular part of the proposition, but certainly there were more parts to it than that, and we can't know what individual voter -- what weighed their decision to vote no. I mean, it could be just as simple as I don't understand it, so I'm voting no because it's an increase in costs.

Bottom line, we don't -- we don't -- we

will never know, but we can certainly look at the proposition.

And do you have the language like the CliffsNotes or the -- it's the paragraph that explains what it is briefly that the voters would read?

Because I think that's probably going to be more relevant because that's what a lot of people -- they look at that and gauge what they're going to vote based on the synopsis and the -- it's not called the CliffsNotes. It's got another term. I just recall it off the top of my -- the summary or --

MS. GRABEL: Description.

CHMN STAFFORD: -- description. There's -- yeah. Because that would explain what the effect of the proposition would do. I think you need to have that attached to the actual -- in addition to the actual text of the proposition because I think that may be more instructive as to what drove people's decisions.

MR. LUSK: Mr. Chair, if I may. I think we can provide that.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: We can provide that information. There's a truth in voting publication that goes out with each proposition, and we can provide that.

CHMN STAFFORD: Excellent. Thank you.

MR. LUSK: You're welcome.
MEMBER MERCER: Mr. Chairman.
CHMN STAFFORD: Yes, Member.
MEMBER MERCER: One more -- one more thing on that same subject.
So Mr. Dempsey, he's still here, he's representing the Underground Arizona. He would like to see this whole project to be underground; right?
MR. DEMPSEY: No.
MEMBER MERCER: Is that my understanding?
MR. DEMPSEY: Just the --
MEMBER MERCER: Just certain areas?
CHMN STAFFORD: Get to the microphone instead of answering, otherwise the court reporter is not going to pick up your answer.
MR. DEMPSEY: So, no, just the areas that have been required by law since the '80s.
MEMBER MERCER: Okay. So I guess my question is was this a part of Proposition 412?
MR. LUSK: Member, I apologize. When you say "this," what are you --
MEMBER MERCER: The underground.
CHMN STAFFORD: Mr. Lusk, please go to the Chair and announce it. Because I'm hearing your voice and I don't recognize it, so I'm looking around confused

as to who's speaking.

MR. LUSK: Sure. I apologize, Mr. Chair. This is Roi Lusk for the City of Tucson.

I'm just clarifying that the member, Member Mercer, is asking about whether the Gateway Corridor Zone itself was a part of the Proposition 412?

MEMBER MERCER: Yes. The what Mr. Dempsey's asking for certain areas to be underground on this project.

My question is were those areas part of the Proposition 412 that were turned down by the voters?

MR. LUSK: They were not. To clarify, Proposition 412 was an up or down vote on renewal of the franchise agreement with the -- with the applicant.

MEMBER MERCER: Okay. Thank you.

MEMBER RICHINS: Mr. Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: Is there a current franchise agreement in place now --

MR. BAKKEN: Yes, there is.

MEMBER RICHINS: -- due to the failure of that?

For how much longer?

MR. BAKKEN: Yes. This is Erik Bakken.

And, yes, there is a franchise in place

today, and I believe it expires in 2026.

MEMBER RICHINS: And what are the ramifications of that expiration should it occur?

MR. BAKKEN: Potentially there would be no agreement between TEP and the City of Tucson for the infrastructure that we have placed in city rights-of-way.

Beyond that, not sure what the implications are.

MEMBER RICHINS: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: This is a question for Ms. Grabel or Ms. Hill.

Let's assume there are residents in, say, the Sam Hughes neighborhood which doesn't -- let's assume -- I'm sorry. Let's assume there are residents in a neighborhood, example Sam Hughes neighborhood, they do not want overhead transmission lines. Do they not have the option for 10, $20,000 to have the lines that they could normally see buried down individually?

Is that not an option? Because I have friends in the Foothills who did that.

MS. GRABEL: Thank you, Chairman Stafford, Member Gold.

I can't comment on the dollar amount, but

they do have the option of exploring the underground improvement district that we discussed with Member Kryder earlier.

And do you want to add to that, Ms. Hill?

MS. HILL: Thank you.

All right. Mr. Chair, Member Gold, I believe Mr. Robinson when he testifies can give you a little bit more of an explanation about the options that individual homeowners have to have the distribution and the lines coming to their homes actually undergrounded. He can give you kind of a little bit more of a technical overview of what those options are, if that's what you're talking about as well.

But there are actually very few transmission lines, you know, throughout the City of Tucson. Certainly the Foothills area has not very many. And so distribution and that sort of thing are a different animal than a 138kV line.

MEMBER GOLD: So if I understand you correctly, Ms. Hill, the 138 lines cannot be buried?

MS. GRABEL: So, okay, I understand the question better now.

There's a distinct difference between undergrounding smaller distribution facilities and larger transmission facilities. And we're going to get into

that during the undergrounding panel.

And so, for example, this project proposes to build the 138kV transmission line aboveground because of the extraordinary cost differential between aboveground construction and belowground, but it's also going to bury the smaller distribution lines because it just doesn't cost -- because the cost differential isn't nearly as much. It's done pretty regularly.

MEMBER GOLD: So if I understand correctly, the 130-volt transmission lines do not impact these areas where you have residential homes that they're complaining about or they do?

MS. GRABEL: They do.

And so this project proposes to build 138kV transmission lines through residential -- in portions through residential areas. But proposes not to underground -- build them underground.

MEMBER GOLD: But if the residents choose to have those lines buried, can they?

MS. GRABEL: The 138kV line?

MEMBER GOLD: The 138.

MS. GRABEL: It's going to depend on the area and, of course, if there's a funding option for that underground construction.

MEMBER GOLD: Well, if they wish to pay for

it themselves, can they?

MS. GRABEL: I guess Ms. Hill wants to address this.

MS. HILL: So, Mr. Chair, Member Gold.

So that's -- when we're here, when we talk about this, obviously Mr. Bakken has been through the taxing district possibility. That would be a possibility for an area that, you know, can form their own taxing district, special taxing district, to underground certain lines.

But one of the things that you'll hear in future testimony with Sargent & Lundy is the cost of that. And so most of the time what would be in that homeowner's viewshed that they would want to underground would probably be in the several-million-dollar range to underground a 138kV line.

And so when Mr. Jocham from Sargent & Lundy testifies, he can probably give you a much more specific answer to that question.

MEMBER GOLD: Thank you.

CHMN STAFFORD: And that'll be on panel 4?

MS. GRABEL: Correct.

MS. HILL: Yes. We anticipate that will be Friday.

CHMN STAFFORD: Okay. Any other questions

from members?

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Is that Member Somers?

MEMBER SOMERS: Yep, that is Member Somers. I just want to make sure you can hear me.

CHMN STAFFORD: Yes. Yes. Do you have a question?

MEMBER SOMERS: Just a brief question. We spoke a little bit or I heard some testimony about the franchise agreement. There is one in place even though another failed an election; is that correct?

MR. BAKKEN: Yes. This is Erik Bakken again. That is correct.

MEMBER SOMERS: Okay. And does either state law or the existing --

CHMN STAFFORD: Member Somers, you broke up there. Can you start your question over again, please.

MEMBER SOMERS: I can. Yeah, you've been breaking up as well a little bit here and there, so I think it's the Wi-Fi.

So the question is does state law or the franchise agreement with the City of Tucson that's in place require an installation of underground where required by local laws?

So the zoning ordinance or scenic corridor

or specific plans that require undergrounding, is that in state law or the franchise treatment?

MR. LUSK: So, Mr. Chairman, this is Roi Lusk with City of Tucson. If I can --

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: If you can attempt to clarify Member Somers' question.

I think there are two things going on. One is the franchise, one is state law. Those two things don't really have anything to do with each other, at least for this proceeding.

The franchise doesn't necessarily control what this Committee can do as well as this Committee doesn't really control what happens with the franchise, so I'm not sure that it would be helpful to sort of go down that road very far, if that makes sense, Member Somers.

MEMBER SOMERS: Sorry. You guys are breaking up here.

CHMN STAFFORD: Okay. Did you not hear his response, Member Somers?

MEMBER SOMERS: No, I did not. It froze.

CHMN STAFFORD: Can you try again now, Mr. Lusk?

MR. LUSK: I don't know if I can get the

words right again, but I'll try.

Member Somers, Mr. Chair, I think the concern is that they're -- amongst both the applicant and some of the parties is that there are two different things going on. One is the franchise and one is state law, and those don't really intersect very well or at all.

This Committee has no impact on what the franchise agreement between the applicant and the City of Tucson dictates as well as the reverse of that.

So the franchise doesn't -- or the franchise doesn't dictate the Committee, the Committee doesn't dictate the franchise, so they're not particularly relevant for this hearing at least as to what is required for undergrounding, if that makes sense.

MS. GRABEL: And TEP concurs with that.

CHMN STAFFORD: Thank you, Ms. Hill.

MEMBER SOMERS: Okay. That's interesting because there's been a lot of questions about how things are paid for.

And my follow-up question to that is if it's required by local law, either the state law or local law or the franchise agreement, to be -- for a line to be undergrounded in a certain area based on local law, and my follow-up question is who in those laws -- who's

required to pay for that?

Is the City required to pay for that?

Do you have to put up the special taxing district, or does that fall to TEP?

MS. GRABEL: So, Mr. Chairman, Member Somers, that's exactly what the City of Tucson and TEP were attempting to determine when they met after -- or prior to the failure of Proposition 412 was how to pay for it. And the conversation about the franchise --

MEMBER SOMERS: My question is is it in law or ordinance on who's required to pay for it as it currently sits?

MS. GRABEL: That's the subject of a superior court proceeding. It's not currently --

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: Mr. Chair, Member Somers, I apologize. I'll try to answer. And I will immediately say that I think Ms. Grabel's correct. We do have some disagreement about that.

But there is no requirement that I'm aware of in either state law or in local law that requires any particular party to pay for undergrounding.

What I think our disagreement is -- and I won't go too far down that road, but what our disagreement is is that we believe the franchise has some

information about who's required to pay for that, and I believe the applicant has a different interpretation of that franchise.

MEMBER SOMERS: So there -- there are local ordinances and view corridors that have been adopted that require or request power lines to be undergrounded, but there's nothing in there about who pays for this or how it's paid for?

MR. LUSK: This is Roi Lusk with the City of Tucson.

Member Somers, I apologize. There was a side conversation. Can you repeat your statement again.

MEMBER SOMERS: My question is that there are also local view corridors potentially impacted here where we're being asked to maybe avoid those because of site issues.

So there are local ordinances or view corridors in place by the City of Tucson that would require undergrounding of the power lines, but there's nothing saying in that law or anywhere else who pays for it?

It's just a question up in the air right now in the courts?

MR. LUSK: That is correct. That ordinance does not determine who pays for the undergrounding.

That -- the City of Tucson -- I apologize. This is Roi Lusk for the City of Tucson again.

The City of Tucson would -- would interpret that to go -- to mean that the franchise would control.

MEMBER SOMERS: But it's an interpretation that's -- and it's nebulous, and that's why it's in front of the court? Would that be accurate?

Yeah, I see a head nodding.

CHMN STAFFORD: Someone please say yes.

MS. GRABEL: Yes.

MEMBER SOMERS: Thank you.

CHMN STAFFORD: Thank you, Ms. Grabel.

Is that the end of your questions, Member Somers?

MEMBER SOMERS: That does. Thank you. And I apologize, but I think it's your Wi-Fi that's kind of cutting in and out on me at least for the moment, but so I was able to get everything out of that. Thank you.

CHMN STAFFORD: Great. Excellent. Thank you.

Ms. Grabel.

BY MS. GRABEL:

Q. Okay. I believe that where we left off, Mr. Bakken, is you were talking about the difference between SRP and TEP in terms of whether TEP can establish

an aesthetics fund.

And you were about to differentiate TEP from SRP on the basis that SRP does not pay a franchise fee or a utility tax and collects moneys from its ratepayers to fund an aesthetics fund, which it dedicates to cities for use in transmission projects.

Is TEP differently situated from SRP?

A. (Mr. Bakken) Yeah. I think that's right.

Before I go there, SRP does collect from their customers funds that can then be used by the cities where they operate for not only transmission projects undergrounding, for instance, but other kind of beautification projects as well.

The difference is that SRP isn't regulated, doesn't require ACC approval for that type of fund.

On the other hand, we do, you know, pay a franchise fee. We pay a utility tax. And those are recovered from our customers.

So thinking about the ACC's policy regarding undergrounding, I think it's highly unlikely that the ACC would approve something like an aesthetics fund really on top of the franchise fee as well as the utility tax to fund undergrounding.

So that I think is -- explains or hopefully clarifies kind of the difference between SRP's aesthetics

fund and our franchise fee and utility tax.

Q. Thank you.

To put this in context, how much money did Tempe pay to the City of Tucson under its franchise agreement in 2023?

A. (Mr. Bakken) Under the franchise agreement approximately $15 million.

Q. How much money did TEP pay in utility rates in 2023?

A. (Mr. Bakken) For the utility tax --

Q. Tax, my apologies.

A. (Mr. Bakken) That's all right. A utility doesn't pay utility rates.

But under the utility tax it was approximately the same, $15 million.

Q. Can the City use those funds to help pay for the underground construction of transmission lines?

A. (Mr. Bakken) They can --

MR. LUSK: Mr. Chair, I apologize. I --

CHMN STAFFORD: Announce yourself when you speak, Mr. Lusk.

MR. LUSK: Sorry. Roi Lusk with City of Tucson.

Just real quickly, I'm not sure that Mr. Bakken is the correct person to be able to answer as

to what the City can do with its funds.

CHMN STAFFORD: He can certainly give his opinion, Mr. Lusk.

MR. LUSK: Sure.

CHMN STAFFORD: And you're free to put your witness on and contradict anything he says.

MR. LUSK: Happy to do so. Thank you.

CHMN STAFFORD: All right. Thank you.

Mr. Bakken, please continue with your answer.

MR. BAKKEN: Yeah. So certainly the City has a number of different priorities. And to date, they have decided not to use those funds for undergrounding utility infrastructure.

MS. GRABEL: Thank you.

I think those are all the questions I have on this topic, so absent any from the Committee I'm going to turn back to the time line and Mr. Lindsey.

BY MS. GRABEL:

Q. Okay. So Mr. Lindsey, will you conclude with the rest of this time line?

A. (Mr. Lindsey) Yes. Sounds great.

So we'll round this slide out here. We've been here for a bit.

As mentioned, without prop 412, we decided to

restart the siting and public outreach process for this project as the need for the project has only grown in importance over time.

In this effort -- so let me see here -- starting in '23, we evaluated a larger study area and also looked at several additional routes beyond our initial effort in 2019. This led us to the CEC application we're discussing today.

It's important to note that the original in-service date for this project is now the summer of 2024. The need to modernize the electrical infrastructure in Midtown is critical for supporting our customers today.

And to highlight some of the challenges we're having in this area of town, the next slide shows some of the investments we've made -- thank you -- and plan to make to support the system between now and the new in-service date of 2027.

Q. So, Mr. Lindsey, I have to interrupt you for a moment.

A. (Mr. Lindsey) Yes.

Q. You mentioned briefly that the original in-service date was 2024 and that has been extended to 2027; is that correct?

A. (Mr. Lindsey) That's correct.

Q. So has that delay had any financial consequences to the company and its customers?

A. (Mr. Lindsey) Yes. It has.

Q. And that's what you're about to go into?

A. (Mr. Lindsey) Yes.

CHMN STAFFORD: And, for the record, you're looking at Slide 25 of TEP-8?

MR. LINDSEY: That is correct.

CHMN STAFFORD: Thank you.

MR. LINDSEY: So to provide a little more detail on those impacts and the result of the delay, we've either made or plan to make investments in the existing system to ensure they continue to operate as reliable as possible.

So these investments have come in the form of increased inspection and maintenance as you can see in the top line, also purchasing of spare parts due to the concern of equipment failures. So as we're talking about this old system, we're really just trying to keep it limping along in anticipation of this project.

So these investments have also come in the form of replacing 46kV equipment that would not be operationally reliable until 2027 no matter how much maintenance was performed.

Specifically we replaced substation

equipment at Winnie and are developing designs and similar upgrades at the Olsen Substation that would otherwise be retired with this project.

So as you see here, we've invested or plan to invest just over $10 million as a result of the delay putting us at that over 10 million point.

So further, if the project's delayed beyond the '27 in-service date, this is where things get even more challenging, we expect another roughly $10 million to be spent just to band-aid the existing system in this area of town to maintain reliability.

One of the things that's of great concern in this area of town is if we do not gain approval for a line and get to build the Vine Substation, without the approval -- sorry. I lost my point there -- we'd be faced with a complete rebuild and expansion of our 46kV system in Midtown adding another 50-plus million dollars of investment into an antiquated system without addressing the need to modernize Midtown.

And as mentioned before, we'd still need to build another transmission line to meet NERC reliability standards. If you recall the map, we'd still need to connect Kino somewhere and we'd still need to build additional facilities outside of DeMoss Petrie, so we'd be back here talking about what that project would look

like in some fashion.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Mr. Lindsey, is that 9 and a half million dollars just -- is that, like, per year, or if the project is delayed a year?

Because you talked about even more additional costs if it's delayed, if the project doesn't happen.

MR. LINDSEY: Member Little, that's a good question.

So the 10 million is what we're looking to invest into Olsen Station to get us into that 2030 time frame. So it's really just a short-term investment into that substation to maintain reliability.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Yeah. I had a question about that Slide No. 25.

The 10.6 million total investment, what is the time frame for that?

Is that up to today, is that through '27?

MR. LINDSEY: So, Chairman Stafford, that includes the investment at Winnie Substation for new equipment, and the point about plan 2 includes additional maintenance between now and the project in-service date.

So most of that has been spent.

CHMN STAFFORD: Of the 10.6 million?

MR. LINDSEY: That's correct.

CHMN STAFFORD: So that's -- mostly that's been incurred already?

MR. LINDSEY: Yes.

CHMN STAFFORD: And so then the 9.5 million, below that that's what you expect to incur between now and '27?

MR. LINDSEY: After '27.

CHMN STAFFORD: After '27?

MR. LINDSEY: Yes. Correct.

CHMN STAFFORD: So you have a bit left of the 10.6 to spend between now and '27, but then after '27 you're looking at 9 and a half million more for what time frame?

MR. LINDSEY: Chairman Stafford, we're talking about getting us to 2030.

CHMN STAFFORD: Okay. '30. So three years. So another 9 and a half million for that three years, '27 to '30, then?

MR. LINDSEY: That's correct.

CHMN STAFFORD: Just to band-aid the existing distribution system together?

MR. LINDSEY: That's correct.

CHMN STAFFORD: Okay. Now, and you mentioned another number. Was it, like, $50 million or something? That would be to rebuild the entire was it 43kV system?

MR. LINDSEY: Chairman Stafford, that's correct.

So we're looking at a significant investment in the 46kV system in Midtown if we don't build this 138kV line as proposed.

CHMN STAFFORD: Okay. So the expense for that would be from now until 2030, 2027, whenever you get that -- those improvements made assuming that this -- you don't -- aren't able to build this 138kV line?

MR. LINDSEY: Chairman Stafford, that's kind of our -- our -- if we don't get approval to build the line, our only other option is to invest in the existing system.

So without the Vine Substation, without the completion of the Kino to DMP 138kV line, our only other solution that we're faced with is just dumping money into this old system. So it's beyond the 2030 time frame.

CHMN STAFFORD: Okay. And that's you said about $50 million?

MR. LINDSEY: That's what we approximate to rebuild the existing system, yes.

CHMN STAFFORD: And then what is the -- your estimated cost to build your preferred route aboveground, then, for comparison?

MR. LINDSEY: Chairman Stafford, I'm going to have to ask --

CHMN STAFFORD: I think it's in your placemat, but I want to make sure I'm looking in the right spot.

MR. BRYNER: It's approximately the same amount to build the Vine Substation and the overhead transmission line. It's right around 52 million one way or the other to rebuild the 46, build the 138.

CHMN STAFFORD: But the 138kV system has additional reliability benefits and it will enable you to grow into the future greater than just improving the 43kV distribution system; correct?

MR. BRYNER: Yes, that's correct.

CHMN STAFFORD: Okay.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Just to clarify, you still in order to make NERC requirements need to have backup connection between the -- on the 138kV system.

So you're talking about needing if this is -- if this is not approved, needing to invest the 50

million to upgrade the 46kV system, which would still be wood poles, somewhat marginal and in addition having to build a different route 138kV line to satisfy your reliability requirements?

MR. LINDSEY: Member Little, that's correct.

So we are not really talking about those costs because we have not scoped what that looks like. We're planning to build this transmission line that we're discussing today as our solution because of the exact points you point out here.

So we would be -- we'd be looking at in addition to that 46kV investment, which would likely -- just a small correction, we would look to install steel poles very similar but not quite as robust as the ones needed for a 138kV system.

I'll note within the neighborhoods' back lot in many cases as we'll see later this week we'd still be looking at investing in that system and coming back to this Committee with a solution that has not been scoped to loop Kino in to connect that -- that loop and meet the reliability promises we made to that neighborhood.

And what we haven't talked too much about quite yet is additional need leaving DeMoss Petrie in the future. So that's another one of these NERC requirements

that fall into the scope of this project.

Mentioned earlier, the levels of efficiency this project brings allow us to resolve all of these issues with one project, and that's what's -- I mean, that's what I get excited about. But we'd be back at the drawing board trying to resolve that problem and scoping and studying within our transmission plans what that might look like.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: One more point. And that is that whatever reconstruction of the 46kV sub transmission system gets done, if that were the case, would not be under the jurisdiction of the -- of the Commission. It just would get built.

CHMN STAFFORD: But they'd still need a 138kV line somewhere even if they did beef up the -- is it 46? I'm saying it wrong? It's 43? It's 46?

MEMBER LITTLE: 46.

CHMN STAFFORD: -- 46kV system you still have to have a 138kV transmission line down the road; correct?

I'm just making sure I got all this.

MR. LINDSEY: Chairman Stafford, that's correct.

I mean, obviously we would -- this is all what ifs and in the future, but we probably wouldn't be looking at building in this area. We'd be taking that new line from Kino likely east or west. Again, it hasn't been studied or scoped, so we'd have to get through that process. And we'd also be looking at additional upgrades outside of DeMoss Petrie Substation on the 138kV side.

So you're correct. There's more to come.

CHMN STAFFORD: All right. Okay.

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: So a question for Mr. Lindsey.

So can you just put it in layman terms what are the benefits or the pros and cons of just rebuilding the existing project or the existing what we have right now?

MR. LINDSEY: Sure. So there's -- I'll walk through them at a high level.

So the higher voltage not only of the 138kV solution, not only provides additional capacity we also operate it differently. So it's a looped system, meaning it's fully redundant, it's always connected on both sides, providing multiple sources of energy to our substations.

Conversely, the 46kV system is a lower voltage. It has less capacity. And it also is operated radially. So from -- we do have connections we can make manually in the field with that system, but if we do experience an outage, it's very similar to those examples we were talking about earlier where power will be out until we manually restore our customers.

So they will experience an outage. Depending on the time of year, severity of the issue, it would be prolonged, and that's really what we're trying to get away from with this solution.

So just a really high level, 138 not only has more capacity, we operate it in a way that is much more reliable.

A second piece that's outside of the transmission conversation but very much a part of this project is we also design our substations at the 138kV level with much more capacity. So it allows us to not only have redundancy at substation level that our 46kV stations do not have, it will set us up to convert to 14kV from 4, again, a whole other step up in the world for the distribution system, additional capacity, additional reliability.

And so when you compare the systems, there's just really no comparison.

MEMBER MERCER: Okay. So besides the reliability, what about the way it looks?

MR. LINDSEY: So from an aesthetic purpose, from comparing the two systems -- well, I guess the way I'd answer that question is if we were to build new versus new, right, not new versus existing, so our 14kV system today built new would look very similar to say we needed to rebuild a 4kV line in this area that fell down using similar poles, similar arms, similar wires aesthetically looks no different.

MEMBER MERCER: So basically it would still look ugly?

MR. LINDSEY: The advantage -- so I'm an electrical engineer, so this stuff all looks great to me.

So the difference I would say is there'll be less infrastructure.

So Mr. Bryner mentioned earlier we're going to be removing a number of miles of 46kV as part of this. We're retiring eight substations with two. So you can see our impact to the community is really reduced when we go to these higher voltages and different types of standards all while bringing more capacity and reliability. So we're really looking at just a much better system.

MEMBER MERCER: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: So, again, so this is to your side of the tables. If I understood this correctly, in 2000 -- in 1975 you used 787 megawatts for Tucson roughly.

In 2003, it's three times higher, the 24 -- 22 -- 2,422 megawatts now converting megawatts to kilovolts, I know how to do that.

If you do not do these upgrades -- judging by the growth in usage, are we going to have brownouts if you do not do those upgrades?

MR. LINDSEY: So, Member Gold, I think the easy answer to that is yes.

MEMBER GOLD: Thank you.

MR. LINDSEY: The longer answer would be we're going to do everything we can to keep the lights on; right? I mean, we're going to move forward with that $50 million of investment because our responsibility is reliability and serving our customers.

From -- as a planner I'm not going to be happy about spending those dollars on this part of the system when I could be investing it somewhere else. There's more efficient ways to use that.

But, yes, there are major limitations with

the existing system, and it's going to require, as Mr. Bryner mentioned, just as many investment to keep it limping along to just meet what we need to for the near term versus what we're looking at here today.

MEMBER GOLD: So if I understand this correctly, and I'm going to use a different analogy. People loved steam engines in its day. Steam locomotives were beautiful. They moved the people. But as the population grew and transportation needs increased, the switch to diesel was actually required. The steam engines just couldn't have done it in the long run no matter how much they tried.

If I understand this correctly, it's a similar analogy. The 46kV system is old. It's low capacity. It's nonredundant. And it's reached the limit of its technological capability.

You can put band-aids on it. You can put up new little poles, but the correct thing to do is to go to something that is better today. The 138kV system is looped, which means you have redundancy. You're not going to have blackouts. It has more capacity so you're not going to have brownouts.

The population is growing, temperatures are going up, more electricity is being used by everybody. To throw money into steam engines when everybody should

be using a diesel engine doesn't make sense. It's not economically good for the community. It's not economically good for our company. It's not economically good for anybody.

So I don't see why we're questioning the need for this. I think it's straightforward we need to upgrade the system. The question is are you allowed to upgrade the system? And that I believe is why you're here today; is that correct?

MR. LINDSEY: Member Gold, I think we'd have to agree with most of that, yes.

MEMBER GOLD: Thank you.

CHMN STAFFORD: All right. Thank you. We've been going another 90 minutes, so I think the court reporter is due another break. Let's take a 10-minute recess.

(Recess from 4:33 p.m. to 4:48 p.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. Grabel.

MS. GRABEL: Thank you, Mr. Chairman.

BY MS. GRABEL:

Q. I think we left off on we were talking a bit about reliability and the aesthetics benefits of the proposed project compared to rebuilding the existing

system and then adding another transmission line.

So I think this is a good time to address the Staff letter that was filed in the docket. I know that, Mr. Lindsey, have you reviewed the letter that was filed in the docket from Commission Staff regarding the reliability benefits of this project?

A. (Mr. Lindsey) Yes. I have.

Q. And do you recall that Commission Staff took the position that it could not weigh in on any reliability benefits because we had not presented them with a system information study, system integration system?

A. (Mr. Lindsey) System impact study?

Q. There we go. That's it, SIS.

A. (Mr. Lindsey) Yes. I've reviewed that.

Q. Okay. Thank you.

And do you also recall Staff's recommendation that we explore a little bit on the record how TEP studies its system to determine what transmission lines need to be added for reliability purposes?

A. (Mr. Lindsey) Yes.

Q. And can you talk a little bit about that?

A. (Mr. Lindsey) Sure.

Q. What is TEP's process for identifying needed system improvements for its system?

A. (Mr. Lindsey) So I'll walk us through the

process. It's a little detailed. It's probably the last thing we want to talk about at the end of -- end of the day, so I'm going to keep it high level and walk through our study process.

So we call this process our transmission planning criteria and assumptions. So this is used for conducting both near and long-term transmission planning studies. And it's actually a public document, so we can provide that as needed. And within that document it outlines a study process.

And so -- excuse me. So I'll hit the highlights here. This study's conducted on an annual basis, and it's really looking at two main things: What we call our Ten-Year Plan and towards the end of the process our NERC compliance reliability studies.

So first we start with a load forecast, and that doesn't mean a load forecast for the entire system. So there's been some numbers thrown out about system peak load. That's part of this forecast. But what we do with those numbers is really drill down all the way to each substation bus.

So you've seen some of our 138kV substations on the maps. In the future Vine would be included in that forecast. And so we get the loading all the way down into the 138kV system so we can evaluate that

transmission system.

So the next step is case development. So what we do here is we model our transmission system. And this includes -- the focus today is 138, but this includes our entire system, our 345kV and 5000kV system as well. We build those models and -- in our powerful software, the GE PSLF software.

And so within that step we are conducting both power flow and transient stability studies to look at the reliability of our transmission system as it looks today with loading and, again, from that long-term horizon out ten years. So that allows us to identify any weakness or upgrades on an annual basis within that Ten-Year Plan study.

So results of those studies are used to develop that plan, as I mentioned, and that plan is submitted to the Corporation Commission on an annual basis.

Q. Thank you, Mr. Lindsey.

What were the results of that study for this project?

A. (Mr. Lindsey) So, you know, understanding some of the feedback and comments related to the system impact study, really the Ten-Year Plan is akin to an SIS. So a system impact study is a little -- sorry, I'm jumping into a little more detail before I get to your question.

Q. You're good.

A. (Mr. Lindsey) The impact study's more traditionally conducted for, say, a new generator connecting to the system or a new connection to another utility. But, really, the Ten-Year Plan is looking at identifying the impacts or the needs of the system. And I would consider this project -- well, it is -- mitigation to issues that we found in that Ten-Year Plan study.

So, again, a strong connection between our Ten-Year Plan studies that we conduct on an annual basis for our entire transmission system to a system impact study. And really this project among others in our Ten-Year Plan are designed to resolve issues that we identified in that study.

CHMN STAFFORD: Ms. Grabel, you referenced the Staff letter.

Is that an exhibit somewhere?

I don't see it on your list of the 19.

MS. GRABEL: It is not a TEP exhibit. They filed it in the docket in response to your question, but we did not make it an exhibit. We can do so if you'd like us to.

CHMN STAFFORD: Yeah. Could you make that TEP-20, then?

MS. GRABEL: We will actually make it TEP-25. We filed some additional exhibits in the record today regarding public outreach.

CHMN STAFFORD: All right. I have not seen those yet, but thank you.

MS. GRABEL: Sure.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: There's an old in lots of way electrical utility system planner I would like to say -- just go on the record as saying that the type of study that Mr. Lindsey has described is the type of study that I, in my position here, representing the public, like to see to indicate that the project is safe, reliable, and has been studied with respect to the entire system, not just a specific little piece of it.

And I appreciate that the planning process that TEP has -- goes through with respect to these projects.

MS. GRABEL: Thank you, Member Little.

BY MS. GRABEL:

Q. Do you have anything further you'd like to put in the record, Mr. Lindsey?

A. (Mr. Lindsey) Maybe just a couple things to round out our full planning process.

So I've focused so far really on our Ten-Year Plan. Once those are complete and planning memos for internal documentation are submitted, we then take that new system configuration.

So, again, we've identified new projects from where we started, coordinate that with our adjacent utilities who are doing the same thing at the same time. We're all on the similar path here in the state from a timing perspective based on the Ten-Year Plan requirements.

And then utilize those new models. So, again, we're building these cases bigger and bigger with new transmission lines that are designed to resolve issues like this one here we're talking about and then utilize those new models to conduct our reliability studies.

So we are required to study our transmission system to meet NERC compliance requirements, so federal reliability requirements as well as the state Ten-Year Plan. And so it really builds on top of that annual Ten-Year Plan.

So really just thought it was worth sharing to round out what that full study process looks like for us.

Q. All right. Thank you.

Mr. Bryner, why don't you continue with the presentation. I believe we are on the Slide 26.

A. (Mr. Bryner) Sure. I'd be happy to.

So just -- we've talked about the project quite a bit, but, I guess, I want to be very direct about the components of the Midtown Reliability Project.

So it includes four main components: A new substation, which is the Vine Substation; a new transmission line connection; upgrades to the distribution system; and the retirement of aging assets.

So while the proposed transmission line is the subject of this hearing, it's what you're here to make a decision on, it's important that you're aware of the full scope of the project so you can understand kind of why we designed the project in the way we did.

So I want to first just have a quick discussion, and we've talked about this some already, so I won't belabor it too much, but why do we have the two end points of the project? You know, so why is it connecting between Kino and DeMoss Petrie?

Okay. So we talked about where Kino -- or where DeMoss Petrie is at, and we talked about the connection of Kino to Irvington. So we know and we've established the fact that we need to create a new transmission path between those two.

And the first leg of that transmission path -- sorry. I forget about my mic. The first leg of that

transmission path was the Irvington to Kino line. The next leg would be our DeMoss Petrie to Kino line to complete that loop.

So the big thing is why does this need to go through the Vine Substation? And we've also -- I think we've established this pretty clearly, it's for efficiency purposes. By doing this, it keeps us from having to build another transmission path elsewhere.

We need to build the substation. We need to add capacity. We need to replace this aging infrastructure, so we need the Vine Substation. It needs a transmission line to serve it. We also need a path in roughly the same area. So by doing this we're able to have dual purposes and meet both of those needs.

So let's talk about why the Vine Substation needs to be where it's at.

Q. And, Mr. Bryner, real quickly, TEP is not required to obtain a CEC to construct a substation, so why are we including a discussion of the Vine Substation in this application?

A. (Mr. Bryner) So as you'll very likely hear tonight during the public comment session, or if you've reviewed some of the public -- or some of the comments that are in the application, there were a lot of concerns from -- primarily from some of the neighborhoods in that

area about the proximity of the substation to their neighborhoods.

But the reason why we've included it in our application here is because the location of the substation impacts the location of the line. It's a critical part of our project. And, again, as we mentioned, by building this one substation, it will allow us to replace or retire eight other substations. So we wanted to make sure that we provided a proper explanation.

So let me go ahead and start with the saturation study. So Mr. Lindsey mentioned this briefly when he was going over the project time line. So this was conducted in 2018 by a third party. The purpose of this study was to identify the ultimate buildout of TEP's system based on load projections which were informed by current loads, demographics, and zoning.

The study identified system requirements to meet those load projections. And one of those requirements was the identification to -- or one of those requirements was the fact that we needed additional capacity in the Midtown area. And that additional capacity would be met by a new substation with a load center that was right at Speedway Boulevard and Vine Avenue. You may not be super familiar with those roadways just yet, but you will be

fairly soon.

So, I guess, once we identified the need for a substation and the load center for that substation, we began the process of looking for a suitable site and purchasing the land.

So TEP typically -- our typical substations are air-insulated substations, so they've -- you know, the equipment is separated by space to provide the necessary clearances for safety, and that takes space. So these substations are usually on a parcel about five to seven acres in size.

But we were familiar with this area, and we knew that it was fully built out, and finding some available land of that size was going to be very challenging, if not impossible.

And so we considered a gas-insulated substation, or a GIS. So a gas-insulated substation that uses nonflammable, nontoxic gas to insulate the electrical equipment within sealed conduit, so whereas the air-insulated substation uses air for that purpose.

So these substations cost more, but they do require a lot less space, and so it was something that we felt like we could accommodate within the spaces that might be available to us.

So you can see these two different substations

on the screen. The one on -- this is Slide 30. The substation on the left is actually our Kino Substation that we've talked about quite a bit. And the one on the right is our Tucson Substation. We've also mentioned that a little bit. And so the gas insulated, it has an open-air 46kV substation, but the 138kV substation is sitting underneath that canopy.

So between 2018 and 2020 TEP searched for a site. There were six site-selection requirements. So I've got those listed on Slide 31. So it needed to meet technical system requirements. It needed to be of sufficient size, which in this case could include potential parcels that would, you know, accommodate a GIS substation. So one to two acres would be acceptable.

It needed to minimize impacts to natural or cultural resources. We needed to have a willing seller, and the land needed to be available for TEP to purchase. It needed to be compatible with surrounding land uses. And it needed to be cost-effective.

So during that initial site-selection process, we identified a total of 15 sites. And through that effort, it resulted in the purchase of the Vine Substation.

I believe -- I can't remember who asked the question before, but do we own the land for Vine

Substation? The answer is, yes, we do own the land for it.

So, as I also mentioned, this site had its critics, primarily from the Jefferson Park neighborhood, which is located north of the site.

So even though TEP had the land before we restarted the siting process in 2023, following the failure of Proposition 412, we did another comprehensive review of sites to see if anything new had become available since we previously identified those other 15. And as a result of that, we did identify five additional sites which were evaluated.

Now, lastly, during the first phase of our siting process, we sought public and stakeholder input on any other available sites, and as a result of that two additional sites were identified and evaluated. So making a total of 22 potential sites that were reviewed as part of TEP's site-selection process.

I'll take just a couple minutes to walk through these sites detailing how each did not meet each the site-selection requirements or, in other words, why they were eliminated from consideration.

So, first of all, so slide -- or sites 2, 3, 4, 5, 6, 7, and 8 were all too small, so they were eliminated.

Sites 9, 10, 11, 12, 13, 14, 15, 16, and 21 were all too far from the load center, so they did not meet the technical requirements.

Sites 17, 20, and 22 all had unwilling sellers. So that only left us with a few potential sites.

So I'll go ahead and start with the Vine Substation site, the site that was selected.

So the site -- the site was the former home of the University of Arizona facilities management and maintenance buildings. So it was already disturbed. It's 1.6 acres in size, so it's sufficient in size to accommodate a GIS substation.

It's located within an area that has similar land uses that are classified as industrial and commercial. And it's located adjacent to two existing substations.

And last but not least it did have a willing seller, which is why TEP was able to purchase it.

Site 18 was looked at in conjunction with our efforts to find a solution to fund the construction of the line underground down Campbell back in the '22 to '23 time period.

The site is currently privately owned and functionally serves as a retention basin. It is of sufficient size for a GIS substation. And with some

extra work and cost we could make it function as a substation site with stormwater retention below.

And at the time the owner was willing to sell. However, those discussions were held in the context of Proposition 412 passing and the line being underground. So when 412 did not pass, the viability of Campbell as a route for the line was in question, and those discussions ended.

And lastly, site 19 was identified in 2023 just prior to restarting our siting efforts. And the site is currently a surface parking lot. The owner was willing to sell. The site is borderline too small. It's 1.3 acres. But it wasn't out of the question to make it work.

So TEP didn't pursue this site for two reasons: One, because the existing -- or because of the existing location of our distribution feeders it would be quite a bit more costly than the proposed site on Vine. So, as I mentioned, the Vine Substation site is adjacent to those two existing substations, so reconfiguring the circuits would be fairly simple there. And the second reason was this site would be surrounded by residential uses on all sides. In all of our public outreach efforts, we've constantly heard feedback that substations belong in industrial and commercial areas, not in residential

areas.

And so, as I mentioned, the Vine Substation fits this more closely than this site does, which is within a residential neighborhood.

So there were no advantages to this site over the Vine site, and it was eliminated from consideration.

So just kind of a recap on the Vine Substation site. So, as I mentioned, it's located within an industrial and commercial area. On -- on -- this aerial image shows the site with -- it's kind of hard to see on the screen, but it's bounded by a yellow line.

And on the north side of this site is a recycling center. East of the property is a parking garage. On the south side of the property are those two substations that I talked about. And then on the west side, yes, it is single-family residential.

And this residential area is part of the North University neighborhood. The boundary of the Jefferson Park neighborhood is Lester Street, which I know it's not labeled on here, but it's the street that goes right across the very top of the screen.

As I already mentioned, the site is 1.6 acres in size, so it's sufficient in size to build our GIS substation. And the site is located a little north of the load center that we had identified in the saturation

study. As I mentioned, that was at Speedway Boulevard, which is a little bit south of this and Vine Avenue, but fairly close, and it did meet our system technical requirements.

And, as I already mentioned, because of the proximity to the other substations, reconfiguring those circuits would be less costly. And since it's a fully built out and disturbed site, environmental impacts would be minimal.

Q. Mr. Bryner, just to reiterate, the selected site for the Vine Substation is right next to an existing TEP substation that will eventually be retired once Vine is constructed; correct?

A. (Mr. Bryner) That's correct.

Our U of A medical substation is located right there just directly south of the Vine Substation site.

Q. Is the proposed Vine Substation essentially an upgrade to the existing TEP system?

A. (Mr. Bryner) So I would say the Vine Substation is a critical component of the upgrade of this specific portion of TEP's 46kV system to a 138kV system.

Q. Thank you.

A. (Mr. Bryner) All right. So this -- so now looking on the right screen, which is Slide 40, this is a photo of the existing site and a simulation of what the

substation would look like as proposed.

So the substation would be screened by a 13-and-a-half-foot masonry perimeter wall, and it would also feature landscaping along that wall.

One thing to note is the change in the property from its previous use, which was a maintenance building for the University of Arizona, so there had -- that had quite a bit of traffic coming in and out of the site, so we would not have that kind of traffic coming in and out of our substation, and so it would relieve traffic and parking congestion in this area, and it would also improve visual quality and kind of the pedestrian experience along Vine Avenue.

Q. And, Mr. Bryner, I note that the simulated condition on the bottom of Slide 40 appears to remove several utility poles that appear in the current condition.

Why were those poles removed?

A. (Mr. Bryner) Yeah, so thank you, Ms. Grabel.

So if you look in the current condition, these poles, those are 46kV poles that source the current U of A medical substation. So as part of this project, those 46kV lines will retired and removed along with that substation.

Now, going down to the simulated condition, we

don't show --

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Yes. Who's speaking?

MEMBER SOMERS: This is Member Somers.

CHMN STAFFORD: Member Somers, can you please turn your camera on? It makes it a lot easier for the court reporter to make out what you're saying.

MEMBER SOMERS: I'll try.

CHMN STAFFORD: Thank you.

MEMBER SOMERS: There we go.

All right. So as you can probably tell, I have to go into a city council meeting right now, so I'm going to have to sign off.

CHMN STAFFORD: Okay. We're going to take a break here pretty soon anyway and get ready for the public comment that begins at 5:30. I think we'll take a break as soon as Mr. Bryner finishes his answer. But we're back tomorrow at nine.

MEMBER SOMERS: Nine o'clock. Thank you.

CHMN STAFFORD: Thank you. Good night.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Mr. Chairman, is this the view from the residences that are on the west side?

MR. BRYNER: So, yeah, to orient you a

little bit, so we're looking south along Vine Avenue. So the substation is on the -- it's shown on the left side is the east, and so the residences are located on the west. So you can't quite see them in the frame, but, yeah, this would be the view from the --

MEMBER LITTLE: On that side. Great. Thank you.

MR. BRYNER: And so, yeah, looking at the simulated condition, so we don't have any new poles here. So that's not exactly correct because we didn't -- we created this simulation to share at some of our public open houses that we had, and we didn't want to demonstrate that we made a decision already on where this new line would go. And so we simply didn't show those.

But we will have a transmission line coming into this substation either from the south along Vine, the north along Vine, or just east of this location. Those are where our alternative routes are at.

BY MS. GRABEL:

Q. Thank you. Please continue.

A. (Mr. Bryner) So we've discussed the substations and why those sites were identified to meet the project need.

CHMN STAFFORD: Mr. Bryner, let's stop there. You can start with the -- you've covered the

substation. You can get to the details of the line itself tomorrow. We need to take a break to get switched up to gear up to take the public comment at 5:30.

MS. GRABEL: That's fine. We only have two slides left of this panel, but I understand timing constraints.

CHMN STAFFORD: Yeah. Because otherwise we'll be starting the public comment late, I think.

MS. GRABEL: We don't want to do that.

CHMN STAFFORD: All right. So with that let's take a recess, and we'll come back at 5:30 for public comment. Thank you.

(Recess from 5:15 p.m. to 5:32 p.m.)

CHMN STAFFORD: All right. Let's go on the record.

This now is the time set for public comment on the Midtown Reliability Project, Line Siting case 232.

Each member of the public will have three minutes to speak. The podium is to my right. We do have a Spanish interpreter available. Ms. Grabel, where -- where is the interpreter?

THE INTERPRETER: Right here, sir.

CHMN STAFFORD: Oh, right there. Thank you. We have a Spanish interpreter here.

All right. We have a number of people

present in the room to make public comment. When I call your name please come to the podium. You'll have three minutes to give your remarks to the Committee.

Up first we have Alexandria Thomas. She indicated maybe she would speak.

All right. Up next we have Roberta Santiago. She indicated maybe.

We have a Mike Attwood. He indicated he wished to speak. Mike Attwood.

Please state your name and spell your last named for the record.

MR. ATTWOOD: Hello, my name is Mike Attwood, and that is spelled A-t-t-w-o-o-d.

CHMN STAFFORD: You can go ahead make your comments now, sir.

MR. ATTWOOD: So I am the president of the North University neighborhood, and along with many of the other neighborhood associations who are affected by this project I oppose the -- what TEP has continued to do of not agreeing to underground this project.

We fully understand that this is an upgrade to existing infrastructure and have no -- excuse me -- going first is kind of hard.

We have no opposition to the upgrade itself, but of course we have some issues with the

specifics going through our neighborhood.

None of us want this to happen, and we've repeatedly said this over the course of many years. And of course we believe that TEP should follow the law as it says that they legally have to underground their lines and we're not sure why there is this continuing opposition to what has been basically settled law and why it doesn't apply to them.

We don't think any of the arguments make much sense, and we hope that the outcome is in favor of undergrounding, or at the very least to change the routes.

We've had many conversations about what the routes should be, and every single time we feel that we are a little bit unheard as the routes seem to be picked before even asking neighborhoods. Repeatedly we have said different routes that we prefer and have had different outcomes, different proposals.

So in conclusion, we believe that this is not the correct way to do this, although a very necessary project. Thank you.

CHMN STAFFORD: Thank you.

Up next we have Adria Brooks.

MS. BROOKS: Hi, everyone. My name is Adria Brooks, B-r-o-o-k-s.

So I'm a little under-prepared today. I just found out about the project a couple days ago, but I'm former staff as a transmission engineer at the Wisconsin Commission. I currently work for the Department of Energy in the grid deployment office as a National Transmission Planning engineer.

CHMN STAFFORD: Can you please slow down?

MS. BROOKS: Sorry. I'll back up. Let's rewind that. Hi everyone, my name is Adria Brooks, B-r-o-o-k-s.

In my former career I worked at the Wisconsin version of the ACC at the Commission there as a transmission engineer. My background is in transmission engineering planning. I currently work for the U.S. Department of Energy in national transmission planning. So I'm very new to this project. I'm coming today not with any of those hats on, but rather as a resident who's in the study area.

So I mostly have some questions for this group, recognizing you can't necessarily answer them, but I would be curious to hear about those if anyone in the audience knows or if someone can point me to where I could find the answers, I would appreciate that.

So looking at national data for what we need, what a transmission system needs for reliability

for demand growth for clean energy integration, I'm not at all surprised that Tucson needs to upgrade its 48kV system up to 138.

That doesn't surprise me. If anything I'm actually wondering if 138 is large enough. And I would love to know if studies were done to understand how far into the future 138kV is going to get us. Would it be better if we were doing 161 or something higher.

So I'm curious to know if we're rightsizing this or are we going to be back in this room 10 years from now because we need to upgrade the line again, in which case could we consider going ahead and rightsizing those transmission poles or some of the substation components that were repaired to reconnect to 161 in the future.

So with that question, my second set of questions is I'm wondering if these are the traditional steel cables that we're using or if we're going to be using advanced conductors for this project, in which case that might help lessen the right-of-way and lower the towers that we're going to need in order to get the reliability that we need from this project.

That's all. Thanks.

CHMN STAFFORD: Thank you. You should probably consult with the applicant. They should have

the answers to those questions for you.

MS. GRABEL: Mr. Bryner's coming up right now.

CHMN STAFFORD: All right. Up next, we have Margo Belval.

MR. BELVAL: Well, as you can see I'm not Margo but Margo is my wife and her interests -- our interest is she purchased a house in Sam Hughes, I believe it was 1975.

CHMN STAFFORD: Can you please state your name and spell your last name for the record, please.

MR. BELVAL: Oh, okay. Sorry. My name is Ron Belval, B-e-l-v-a-l.

And I'm mainly here to support the TEP transmission planners because I was part of that group a long time ago, and so I can't bad-mouth those people at all.

So in the application, TEP acknowledged that the Midtown area in the Sam Hughes and other neighborhoods adjacent to the university all provide considerable value to the greater Tucson metropolitan area. So there's that. There's value of not only to the Midtown area neighborhoods of building a project and increasing reliability. But there's a broader value.

On the other hand, looking at the actual

planning of it, I think you could look at it two ways, who benefits. If you think there's a project that benefits Midtown, then it sounds like 46kV upgraded because I believe I saw that it was approaching the limit of its capacity. So if you're just focusing on that, you might look at a smaller project.

But the 138kV line if I recall correctly, and it's been a few years, that building that line would create another path between the major sources from the transmission system that TEP has in the south and with a 500kV source out of Tortolita.

So building this project improves the reliability of the 138kV network that serves the greater metropolitan area. So that's who benefits from this.

So, and I'm sure that TEP has looked at -- the planners have looked at all the alternate routes. But since these neighborhoods provide such a great value and they have a long historical legacy, I would hope that the Commission or Line Siting Committee would consider that factor in making this decision, the quality, the visual aspects of it that would definitely be changed by a transmission line could detract from the value.

And so -- and getting back again to the engineering aspect of this, there are three main paths between the sources, and one or two of them goes out,

then the other one gets overloaded and closing this 138 path, and tell me if I'm wrong, would provide another path to alleviate the loading thereby improving the reliability.

And I've always had a hard time dealing with the incremental cost of undergrounding, but I think there's certain places where that may be warranted, and if you do find it's warranted and I hope you do, then since this is a broader benefit, this shouldn't be borne by the TEP ratepayers in general. Thank you.

CHMN STAFFORD: Thank you.

Up next we have Jan Gordley, but she has indicated she does not wish to speak.

We also have a Terah Partridge, which she has indicated she does not wish to speak.

Colleen Nichols. She has indicated she does not wish to speak.

Warren Egmond does not wish to speak.

Michael Guymon.

MR. GUYMON: Good evening. My name is Michael Guymon. G-u-y-m-o-n.

I'm president and CEO of the Tucson Metro Chamber, and I'm also a Ward 6 resident in the Sewell neighborhood near 5th and Craycroft.

The Tucson Metro Chamber strongly supports

Tucson Electric Power's application for a certificate of environmental capability for the Midtown Reliability Project.

As the region's leading business advocacy organization, representing 1400 member businesses and 160,000 employees, the chamber is committed to fostering competitive, thriving economy.

The chamber supports initiatives that create an environment where businesses can flourish and the community can prosper, while also balancing the economic development with community needs.

TEP's Midtown Reliability Project does just that, and is a significant step toward promoting a robust, reliable energy system that underpins economic growth and enhances the quality of life for all Tucsonans.

I can tell you that as an employee, former employee of Sun Corridor for seven and a half years working with companies that are looking to relocate or expand into our region, TEP was in almost every single conversation with those companies to help them understand the electric liability and the access to electricity within our community, which was one of the major components that companies look at when they're looking to relocate or expand.

Reliable power infrastructure is foundational to economic development, fostering business growth, attracting new investments and supporting the overall economic health of our community.

This upgrade will directly benefit 62 Central Tucson neighborhoods, including over 36,900 homes and more than 6800 businesses while also paving the way for new business development and job opportunities in the area.

Additionally, the project will enable TEP to retire up to eight 46kV substations within 10 years, avoiding significant replacement costs and resulting in a more efficient infrastructure.

TEP's transmission and distribution improvements will allow customers in the area to continue adding rooftop solar, private battery storage systems, and electric vehicles promoting sustainable energy solutions and advancing our community's economic and environmental needs.

The Tucson Metro Chamber believes the Midtown Reliability Project is vital for Tucson's continued growth and prosperity. We encourage the Committee to approve TEP's CEC application to ensure reliable and robust power infrastructure that will drive economic development and support the thriving central and

greater Tucson area.

Thank you very much.

CHMN STAFFORD: Thank you.

Up next we have Rosemary Bolza.

MS. BOLSA: I'm Rosemary Bolza, B-o-l-z-a.

I live in the Jefferson Park neighborhood about one block and a half from where the Vine Substation is proposed.

When I first heard about -- and I do believe that TEP can do better than this. When I first heard about the project, it was in conjunction with the U of A becoming carbon neutral. And I thought, well, that's great.

But as we've learned more about it, the Vine proposed substation is in a very awkward place. It has to thread its way through Banner and these historic neighborhoods. And I believe that the TEP local employees are really fantastic people.

But I feel that the administrators of TEP are trying to bully the neighborhoods in accepting this location of this substation that is so awkward. And I'm very concerned about the idea of aboveground high power lines in our era of wild weather. There was just a microburst that knocked down five poles onto standing traffic. Now, the big poles probably won't snap like

that, but the lines can.

And also with our era of terrorism, these lines are susceptible to people with drones, to people cutting them, and I just we've been at this for years. And I think it's time to look at better technology and better methods. Thank you.

CHMN STAFFORD: Thank you.

Dorothy Richman does not wish to speak.

Randy Hotchkiss.

MR. HOTCHKISS: Randy Hotchkiss, H-o-t-c-h-k-i-s-s. I live at the intersection of Campbell and Mabel, East Mabel Street in the Blenman-Elm neighborhood. I represent the Blenman-Elm neighborhood in this endeavor, my house is one block east of Campbell, two blocks north of Speedway, definitely in the TEP high-power transmission line impact area.

I represent the Blenman-Elm neighborhood, and the neighborhood overwhelmingly objects to the aboveground power line. Several reasons. I'm a U of A alum, Tucson native, I love Tucson. I lived in Phoenix for a while -- sorry, Phoenix people. I lived in California for a while. Tucson is a wonderful place to live and we want to keep it that way.

TEP, a 138kV aboveground power line structure would visually, severely visually impact the

gateway to Tucson and the University of Arizona. We rely on this gateway to attract visitors, to attract businesses, to attract everybody. It's right from the airport, it's a direct route right into the Tucson community and U of A campus.

Loss of property values up to 40 percent has been well demonstrated, although TEP does not agree with me on that. It is well demonstrated up to 40 percent if you live within 400 feet. It breaks down lower as you move out.

My house is within 400 feet.

The negative impact of living near or under power lines has a negative health hazard. TEP disputes that. There's been several studies including leukemia studies in children. If you want to go to Google it, go ahead and Google it. Impact of high-powered transmission lines on health with children and leukemia.

The Campbell-Kino gateway scenic route, it's a direct route to U of A campus, I told you that. The route passes through several historic neighborhoods, churches, Banner Medical Center. It would be absolutely criminal to run a high-powered transmission line along this route.

To protect the gateway scenic route, the City of Tucson enacted the gateway and scenic corridor

ordinance which requires new power lines must be placed underground. The City of Tucson Gateway Corridor Zone Section 5.5.4 subsection (b)(a) states that all new utilities must be aboveground -- I'm sorry, below ground, underground. Sorry.

CHMN STAFFORD: You're over three minutes. You've got another 10 seconds to wrap it up, sir.

MR. HOTCHKISS: Ten seconds. Have I gone three minutes already?

CHMN STAFFORD: Yes.

MR. HOTCHKISS: Have I?

CHMN STAFFORD: Yes, I'm timing you.

MR. HOTCHKISS: Okay. I'll just get right to the end. It's absolutely outrageous that TEP wants to do this to our neighborhood, the Gateway Corridor, the University of Arizona, Banner, the historic neighborhoods. We must protect our neighborhoods. We must protect our city's Gateway Corridor. We must protect our historic neighborhoods. We must protect our scenic routes. We must protect the beauty of Kino Gateway Corridor.

TEP and its Canadian parent company must follow the established laws and put the underground line underground. Thank you.

CHMN STAFFORD: Thank you.

Up next we have Christine Villela. I'm sure I'm not pronouncing that correctly.

MS. VILLELA: My name is Christine Villela. It's okay. Lots of Ls. Spelled V-I-l-l-e-l-a.

Thank you, members of the Committee, for your time tonight. I along with my father own eight homes on East Adams Street in the North University that are along the TEP preferred alternative route. We oppose TEP's alternative route that allows high-powered aboveground lines along East Adams in this neighborhood.

My father, Mike Teufel, has submitted a letter to the Corporation Commission, and I ask that you carefully consider before making a decision. I didn't know what this meeting was like. I brought 12 copies if those could be passed around. I just can't know it was this big.

But East Adams is purely a residential street. Why TEP picked East Adams as a preferred route is a mystery to us, because there are more direct routes to the Vine Substation.

Regardless, TEP's own preferred alternative B and preferred 4 place some of the high-powered lines in this residential North University and Jefferson Park neighborhood underground. But when it gets to Adams Street, TEP is proposing to bring them out of the ground

directly over the residential houses owned by my father and me, which are rented to young students.

There is no reason that if the plan is approved the lines through Adams Street should not be underground. The length is less than 2,000 feet. There is nothing that would make it expensive or difficult to place these lines underground.

I'm not aware of any government entity that is allowed high-powered aboveground lines to go directly over preexisting residential houses where young people are living.

These lines are not safe for young people. The National cancer Institute has stated that various studies have shown that those high-powered lines increase childhood leukemia by 1.4 and twofold. This is not something that I'm making up. It is in detail in the letter that we sent and it's on the cancer.gov/about-cancer/causes-prevention/risk/radiation/electromagnetic-fields-fact.

There is no reason that TEP, which is owned by Fortis, Inc., cannot afford to place these lines in this 2,000-foot stretch underground. In 2023 alone Fortis, which owns TEP, made $1.5 billion in profits. Fortis has paid 50 consecutive years of increased dividend paid to shareholders. Fortis has more than 68

billion in assets and more than 12 billion in 2023 fiscal revenue.

Fortis has paid its chief executive and president, David Hutchins, more than 14 million in 2022. I ask you to do the right thing, and if you allow high-powered lines through the residential streets in North University and Jefferson Park that you require TEP to put them underground. I thank you for your time and consideration on this matter and for your public service.

CHMN STAFFORD: Thank you.

Up next we have Peg Weber.

Jesse Lugo does not wish to speak.

Are you Peg Weber?

MS. WEBER: I am.

CHMN STAFFORD: Thank you.

MS. WEBER: Good evening, I am Peg Weber. W-e-b-e-r. I have a home in the neighborhood North University.

Our area, North University, is not historical. However, we're part of Tucson next to historical neighborhoods. My -- I'm sorry I did not say I was going to speak when this -- when you-all called me up.

It's important for our community to look at our whole community. I don't think that any of us

disagree that we don't need better, more efficient power. In our area, we believe it should be underground. I think for the whole city, it should be underground. Because as has been pointed out it can be afforded and it is the right thing to do.

There have been a lot of Tucson plans, we always say let's do the right thing. When you go to public meeting what would you like to see? And everyone says we would like to see fewer cars, we'd like to see bike lanes, we'd like to see better pedestrian things and all of the -- everyone gets excited.

And then that dissolves when we can't afford it. But we can afford it and we need to. We need to make our communities stronger and it's not like we can do that later. We need to do these things now, and this is one of those now things that we could do. Make the things go underground and prove the electricity as they should be and move on to the next neighborhood and the next neighborhood.

Because this really is a whole Tucson problem, issue, and opportunity. Thank you.

CHMN STAFFORD: Thank you. Sara and Earl O'Neil indicate they do not wish to speak. Kathi McLaughlin.

MS. MCLAUGHLIN: Good evening. My name is

Kathi McLaughlin, M-c-L-a-u-g-h-l-I-n.

I'm a licensed architect in the state of Arizona for 48 years. Planning and urban planning, architecture and urban planning have been my interests.

TEP is here to argue that the Arizona Corporation Commission should override Tucson's long-standing local regulations regarding utilities along scenic and gateway routes. TEP's argument -- sorry -- that might be better.

TEP's argument rests entirely on the validity of its assertion that the cost to underground its lines is so much greater than the cost to overhead that the cost makes the project infeasible.

However, in other legal documents TEP has acknowledged the exact opposite, that the cost of undergrounding is indeed feasible.

TEP acknowledged this fact when it signed its current franchise contract with the City of Tucson. In that contract, TEP explicitly agrees to underground its utility projects at its own expense wherever the City had required undergrounding prior to the execution of the contract, which is the case here. And that the costs for undergrounding will not be a limiting factor or argument against undergrounding.

TEP must have understood that the costs of

undergrounding are feasible or it could never have entered this contract with the City. Or worse, it entered into the contract in bad faith.

Tucson requires undergrounding of utilities within the city in only a few circumstances, and the reason TEP could sign the contract in good faith is because the cost to underground is, in fact, feasible.

Take TEP's own estimates for the cost of undergrounding the project, setting aside for the moment that the estimates are likely inflated, divide the costs by the number of ratepayers and then spread the cost per ratepayer over the actuarial life of the project. And the result would be -- wouldn't come anywhere close to even 1 percent increase of a $100 TEP utility bill.

So less than one percent cannot be considered infeasible.

And for those low-income Tucsonans who might have problems with even a tiny increase in their electric bill, there are programs available that would offset that extra cost.

So when TEP tells this Commission that the cost of undergrounding is so infeasible that it warrants the ACC overriding duly enacted local regulations, it is simply not the truth.

The Kino-Campbell scenic route is the only

scenic route actually constructed to be a scenic route. This happened in 1985. It became the gateway from the airport into the heart of the city with Campbell Avenue extending all the way to the Catalina mountains. It's the only avenue that does that in the entire city.

Tucsonans paid for that pathway to remain beautiful and inviting. Uglifying it with monstrous TEP infrastructure would be tragic. And now TEP wants to renege on a binding commitment it made to Tucson when the City extended TEP's franchise. Please hold TEP accountable for its promise.

CHMN STAFFORD: Laurie Mulcahy does not wish to speak.

Tony Pyle does not wish to speak.

Herman Weez does not wish to speak.

Meg Johnson does not wish to speak.

Nancy DeFeo does wish to speak.

MS. DEFEO: Nancy DeFeo, D-e-F-e-o.

TEP has assured you that the construction of 138kV transmission lines will have no impact on nearby property owners and has submitted a study to that effect.

There are a few points in that report that I'd like to refute.

Important point 1: The report implies that transmission lines, the height and size proposed by this

project, are already common in the center of the city. This is false. Their study contains no such examples in the center of the city of either a transmission line or of any other line higher than 60 percent of the proposed lines.

Important point 2: Half the studies done on 138kV transmission lines conclude that those lines do reduce nearby property values. Therefore a reasonable conclusion is that at least some or many property owners will suffer reductions in their property values.

Approximately 2,000 residential property owners live within two blocks of the proposed project on roadways where the City requires undergrounding. The study reporting property value reductions find that the drop in property value averages about 5 percent.

Example: If even one-half of affected property owners end up with a loss of 5 percent, it would mean a total loss of $20 million in property values to those Tucsonans based on the median price of Tucson homes. That big loss might be the best-case scenario.

Important point three: TEP says the effect of value reduction lasts only four to six years and then disappears. Even if that was true, and it is contested by many studies, it will still cost all those residents a lot since the average duration of home ownership in the

country is only about eight years.

Therefore a fair number of those affected owners will likely sell their homes within four to five years. It would cost each of those hundreds of Tucsonans about $20,000 on average at the median home price. That's a huge loss of money for a typical family to bear, and the majority of Tucsonans along the proposed route are typical average families.

Most important point four: When the Committee is thinking about fairness to ratepayers, remember these ratepayers, who many studies show could well lose many thousands of dollars if the project is built aboveground. Compare that great loss to a differential cost of maybe a dime to a dollar a month to all ratepayers if the project is constructed underground.

CHMN STAFFORD: Up next, Christy Cummins.

MS. CUMMINS: Good evening, and thank you for providing this opportunity for us to speak. As you can tell the majority have been comments about wanting the lines to be underground.

CHMN STAFFORD: Can you please state your name and spell the last name for the record? Thank you.

MS. CUMMINS: I'm sorry. Christy Cummins. C-u-m-m-I-n-s.

The majority have been asking for

underground. I was lucky enough to go with my husband to the TEP meetings that spoke to the neighborhoods that would be affected by such a situation.

At each meeting we all begged and pleaded for undergrounding, and it became clear that it would never happen. And they told us directly it will never happen, it's way too expensive. So we worked hard on trying to route this -- this situation, find the best routes. There are no best routes because all of them will go through somebody's neighborhood. So you have to pick somebody else's neighborhood for it to go through, which was very unfair.

My objection to the whole aboveground is the situation I have seen on Grant going east, on Fort Lowell, if you start looking around our streets they have been putting up these ginormous poles and they are hideous. And I don't see any solution. This seems to be the only thing they can do is put up those humongous poles that are nothing but a visual abomination.

So my objection is visually any of these things above the ground have been awful and they have impacted me. They have impacted our neighborhoods. Even though they're -- most of them are on major streets, but they're all up Tucson Boulevard which has a lot of neighborhoods in that. So my objection is aboveground is

so bad looking that it affects -- it makes our city look like third-world country and I have lived in third-world countries. Thank you.

CHMN STAFFORD: Thank you. Up next we have Jim Cummins.

MR. CUMMINS: My name is Jim Cummins, spelled exactly like the lady before me, C-u-m-m-I-n-s.

I was the neighborhood representative for the Richland Heights East neighborhood for this advisory group with TEP. My neighborhood is on the far northeast periphery of the study area, but nonetheless we were -- I was engaged with them and I thank TEP for having that advisory group. At least we could understand the project and see what was going on.

As I've heard from many of the other people that were engaged with this, I would say that nobody was happy with the final solution, even though we all probably agreed that the project needed to go ahead. It's additional power requirements in all these neighborhoods, it's a fact of life that we're using more and more of this electricity.

The solutions that have come up with are always going to impact neighborhoods. The only way to not -- to minimize that impact is to put them underground. I'm sure that this Committee, the ACC, the

City of Tucson, there's all rules and regulations that'll say, gee, we can't do that, we can't force this. But it's something that needs to start somewhere and this Committee could be one, it could be the ACC, it could be TEP's parent company saying, you know, we have enough money, we can do this and make it better.

And lastly, I just finished a week-long tour with a college buddy of mine of northwest New Mexico, southwest Colorado, some beautiful communities that we saw. And one of the things that struck me was throughout these communities, you saw very little aboveground utilities. And it's not just power lines it's cable lines, it's telephone lines. All these things.

Once you start to notice it, you see it everywhere. And I'm hoping this Committee could help drive some change in the organizations, in Tucson's directives, and in TEP's parent company and make a difference now and try to get this stuff underground. Thank you.

CHMN STAFFORD: Thank you.

Up next we have Gayle Hartmann.

MS. HARTMANN: Mr. Chairman, I think it is Mr. Chairman.

CHMN STAFFORD: Yes.

MS. HARTMANN: And members of the Committee, my name is Gayle Hartmann, G-a-y-l-e H-a-r-t-m-a-n-n.

I'm president of the Sam Hughes Neighborhood Association. We are a Midtown neighborhood bounded by Campbell Avenue, Country Club Avenue, Speedway Boulevard, and Broadway Boulevard.

Tucson Boulevard bisects our neighborhood.

Originally the huge poles that are proposed as part of this project were to run along Campbell Avenue, our western boundary. More recently Tucson Boulevard has been proposed as an option that would bisect our neighborhood. Our neighborhood is strongly opposed to this proposal of TEP.

I want to point out initially that a statement by TEP in a recent information card that we received is really misleading. It states, "Using input from Midtown residents and other stakeholders, TEP identified several potential overhead transmission line routes."

The several potential overhead transmission line routes were presented by TEP, but they were not agreed upon by Midtown neighbors. I'm sure you know that in reality there is a strong feeling among the residents in our neighborhood and other neighborhoods that the

proposed lines need to be underground.

Underground is common in many parts of the country as the recent speaker just mentioned, and we are convinced that that is the only reasonable solution here. Also, as others have pointed out, undergrounding seems to be economically feasible.

I'm sure you know that there's more than one local ordinance that clearly states the industrial poles that this project plans to use have no place on several of our streets.

We have a University Area Plan and the scenic gateway and route ordinance are both examples that make it very clear that undergrounding is required. And these ordinances have been in place for a number of years. TEP certainly knew of their existence and therefore should have planned to underground their lines from the beginning.

In addition, I note that when considering a certificate of compatibility, historic sites and structures need to be taken into account. The Sam Hughes neighborhood and other neighborhoods are historic neighborhoods and are on the National Register of Historic Places. The huge poles being proposed have no place in or near any historic neighborhood.

I want to make it clear that we are not

suggesting that the project as proposed should be sited somewhere else. A recommendation that was put forth some months ago proposed that aboveground poles would be acceptable in industrial areas, but that in all other locations the poles need to be underground. We concur with that proposal and hope you will as well. Thank you.

CHMN STAFFORD: Thank you. Up next is Jonathan Salvatierra.

MR. SALVATIERRA: Mr. Chairman, as a point of information --

CHMN STAFFORD: Can you please get to the microphone?

MR. SALVATIERRA: Mr. Chairman, as a point of information, how many more speakers are left?

CHMN STAFFORD: Let's see.

MR. SALVATIERRA: There's been about 30 to 40 percent that declined.

CHMN STAFFORD: I have nine names on the sign-in sheets that have indicated they want to speak and then I don't know how many we have either on the phone or on the Zoom call.

MR. SALVATIERRA: Okay. I have a single one-page summation and I'd like to finish it.

CHMN STAFFORD: Well, let's start by getting your name and spell your last name for the

record, and then you can commence with your remarks.

MR. SALVATIERRA: Thank you. My name is Jonathan Salvatierra, S-a-l-v-a-t-I-e-r-r-a.

Commission members, stakeholders and public, I'm a retired railroad conductor, an active licensed real estate broker, Democratic LD20 PC 246 member, specializing in community health and environment advocacy, as well as over 20 years with the Citizen Advisory Board as a member on the Mission Linen-Park Euclid HAZMAT superfund site.

My experience from these endeavors over a lifetime as a native Tucsonan gives me a unique view of the challenges and the dismal benefits gained when industry, ADEQ, and civil servants fall short of safety guarding the quality of Pima County residents' health, environment, and economic liability risk exposure. And this may be in some related elements historic.

Many U.S. -- many U.S. -- well, Tucson citizens remember the scenic sunrise butte of the Enron era when TEP at their Irvington plant made a million dollars of revenue each night generating California energy needs. TEP got the money and we got the sooty sunrise to breathe.

This facility must not be permitted to sell energy outside of Pima County needs. Our regular ozone

alerts, moderate to poor air quality and unnecessary deadly silent killers of our youth and seniors.

So is the long-standing public disinformation on the overhead energy poles cost basis versus undergrounding cost and lower maintenance.

The Shannon and Ina Roads two-week closure from the verified -- a verified tornado is one of the more scenic and road hazard issues threatening our public health and safety.

TEP murder poles exist along Euclid, Country Club, and Alvernon, mere inches from city street curbs. Safety is second to profit along our city streets without bike lanes.

TEP's renewable wind and solar are dwindling benefit to homeowners, but look invitingly interesting as their dog and pony show TV ads.

TEP's 2050 renewables projection will leave Tucsonans the last to ever benefit from new technology.

Finally, TEP as a proxy for foreign-owned parent Fortis took $1.6 billion out of this country and Pima County in 2022, while every public franchise fee dollar we pay for gets surcharged 12 percent more before the asset or benefit becomes a converted asset of Fortis.

It is my fervent hope that this Commission denies and refuses to be bound to the -- to comply with

TEP's misleading rhetoric. Until the state, county and city can review TEP as a short-term subcontractor in transition to a commonwealth public energy group that keeps the new assets we safely underground for our continued scenic public safety and cost benefit solution. That's all I have. Thank you.

CHMN STAFFORD: Thank you. All right. Margaret Kish does not wish to speak.

Rhonda Baga does not wish to speak.

Pat Homan does not wish to speak.

Evelyn Thomas has a question mark.

MS. THOMAS: My comments have already been made by many other people.

CHMN STAFFORD: So Evelyn Thomas does not need to speak.

Vytas Sakalas.

MR. SAKALAS: Thank you. Thank you. My name is Vytas Sakalas, spelled S-a-k-a-l-a-s.

I'm a 32-year resident of the city of Tucson in the Sam Hughes neighborhood, and a member of the Sam Hughes Association Board of Directors.

Upgrading the existing power lines in the city of Tucson is not in dispute. That is necessary.

However, we ask that TEP respect the wishes of the people of Tucson. By the way, Phoenix, Tempe,

Scottsdale, and even downtown Tucson enjoy underground power lines, so it's only fair that we get them in our scenic corridor areas as well.

Because we care about how our city looks. TEP is apparently in deep denial of aesthetic values that are important to any city, and Tucson residents agree on that in general.

Industrial-scale power poles are not appropriate in Midtown Tucson. We ask that TEP serve the residents of Tucson first instead of seeking to extract the most profits for a relative handful of out-of-state and foreign investors.

Tucson's underground coalition has conducted an extensive in-depth study of the issue and concluded that undergrounding the upgraded power lines is very feasible. And it would be the most appropriate solution. It's a solution that would be in accord with the law preserving our city's viewshed, the Gateway Corridor, and property values are vital to the City of Tucson. Thank you.

CHMN STAFFORD: Thank you. Paula Chalmsky said she does not wish to speak.

Diana Lett.

MS. LETT: My name is Diana Lett, my last name is spelled L-e-t-t.

I am the treasurer of Feldman's Neighborhood Association and the chair of our Neighborhood Preservation Committee. I'm seeing that people can't hear me. Is that true?

Again, I'm the treasurer of Feldman's Neighborhood Association and the chair of our Neighborhood Preservation Committee.

I want to explain an aspect of the cost to residents that has not been elucidated by the previous speakers. Historic district, Natural Register historic districts exist to preserve the historic streetscape. If you put giant power poles in front of historic buildings, not only do the individual buildings lose their National Register listing, the entire streetscape loses its listing and potentially the entire neighborhood.

Whenever individual structures lose their listing, that's an approximately 50 percent increase in property taxes automatically.

If an entire district loses its listing every property in that district loses its tax break.

This is a very big deal for people trying to age in place. We really want you to understand that this is a big part of why neighborhoods really vehemently object to abovegrounding power lines on neighborhood streets and historic districts. It is a huge burden,

economic burden on the citizens. Thank you.

CHMN STAFFORD: Up next we have Andrew Christopher.

MR. CHRISTOPHER: Hello, can you hear me?

CHMN STAFFORD: Get a little closer to the mic, please.

MR. CHRISTOPHER: Is this good?

CHMN STAFFORD: That's better. Thank you.

MR. CHRISTOPHER: I'm Andrew Christopher, common spelling. I'm a Commissioner on the Tucson-Pima County Historical Commission. We sent a letter to the ACC dated July 1, 2024. I would encourage you all to read it. It outlines dozens of neighborhoods and historic districts and assets that this potential route would impact. However, I'm not going to be speaking on behalf of the Commission tonight. Somebody else will later in the evening.

I am also the president of the Arroyo Chico Neighborhood Association, and I was in the Neighborhood Association Advisory Group that met with TEP several times.

One thing that we all agreed on was there was no proposed route that we could unanimously support. All the routes impacted one group or another, and if you shove the route away from one asset you impact another.

So in these meeting we learned a lot of revealing information from TEP. One of them being that a lot of their substations are equipment exceeding 50 and 60 years old. Many of them rated in TEP's own assessment in poor or in very poor condition. As many of you know we experience regular power outages when we have major storms, and in extreme cases we have a whole blocks of power lines failing into traffic.

So as TEP is so concerned with reliability, a good place to start would be properly maintaining the infrastructure that they already have and that we already pay them to maintain.

We have been told that the demand for electricity has gone up citywide across all consumers. But the location of the Vine Substation should tell you all you need to know about where the real demand is coming from. The University of Arizona builds another multi-story research building every couple of years and another multi-story student housing complex goes up at about the same rate. However, the U of A and big developers like that pay lower rates for their power than the average residential citizen.

TEP makes hundreds of millions of dollars in profit every year, yet they claim they can't afford to do the right thing and underground these lines. It's

time that they pay up and make their industrial consumers pay their fair share. Thank you.

CHMN STAFFORD: Thank you. Charles Vernon does not wish to speak. Geoff Boyce.

MR. BOYCE: Thank you, all. My name is Geoff Boyce, B-o-y-c-e.

I am a homeowner and resident in Pie Allen neighborhood. I have been following this process for a long time, and I am really -- I'm here to voice really a feeling that I know many of my neighbors share, which is being kind of despondent and certainly upset that at the end of many years of conversation and engagement by all of the neighborhoods impacted by the proposed line siting that the option of undergrounding these lines, which I think is almost a consensus certainly among the people who have spoken tonight, you hear this over and over and over again, has been dismissed by TEP, is not on the agenda now as a solution for this infrastructure project.

As you've been hearing, many of the neighborhoods that are going to be impacted by these new transmission lines are historic neighborhoods and the scale of these transmission towers is way out of scale with the historic neighborhoods that they're going to run through.

I frankly think it's outrageous that there

is a feasible solution that is broadly supported by the Tucson community, by the residents who are adjacent to this project that is not seriously being considered by TEP and I -- I sincerely hope they will -- they will revisit that question and that this Commission will use whatever leverage it has in order to insist that they revisit that option. Thank you.

CHMN STAFFORD: Thank you.

Ryland Plassman does not wish to speak.

Tom Baca does not wish to speak.

Donnie Carroll does not wish to speak.

Kevin Bitten.

MR. BITTEN: Hello, my name is Kevin Bitten, I'm president of the Pie Allen Neighborhood Association, and I'm here to encourage the Commission to not certify this project, and represent Pie Allen in that respect.

I'd like to start with an anecdote. When a representative of Tucson Electric Power came to our neighborhood meeting and we discussed this, the obvious solution seemed to be to underground these lines. And when I mentioned that to the person who was representing TEP, what he said was, well, the Corporation Commission has deemed it unsuitable for us to charge our customers the costs there would be to underground the lines, so

that's not feasible.

I'd like to read something for you from an article entitled "TEP Seeks Rate Hike Despite Company's Rising Profits," published in the Arizona Capitol Times.

In 2020 TEP's profit or revenue above costs was 191 million. That jumped to 201 million in 2021, 217 million in 2022. These increasing profits came despite high inflation and other pandemic-related economic stresses that have burdened many individuals and businesses.

I'd like to point out also to everyone that for TEP, there really is only one responsibility and that's their fiduciary responsibility to their shareholders. The same is true of Fortis. And in our system of government and economy, it's contingent on democratic institutions like the Corporation Commission to be the only counterweight against that sole value for a corporation.

Legally, a corporation's board, their only responsibility, in fact, they're negligent if they don't serve this responsibility, is to serve the profitability of the corporation in order for the shareholders to increase in value.

And they would actually be negligent if they failed to do that. If they could get 200 million

out of us they will, if they can get 400, it's their responsibility to get 400. If they can get 600, their responsibility is to get 600. They have no responsibility to our community or to whether it's beautiful or livable or anything like that.

And I don't begrudge them that. That's their job. It is the Arizona Corporation Commission's job to be our representative and put some constraints on that board, so they can go to their shareholders and say, well, we would have gotten 600 million but that Arizona Corporation Commission made it now we can only get 200 million.

So I encourage you to think about the people of Tucson and that we really -- you're our only representative at this point in this fight. We have passed a local law. But apparently that can be overridden on a state level.

So you're really, you're our only advocates at this point. So please keep our perspective in mind. Thank you.

CHMN STAFFORD: Thank you. Henry Schnecklin does not wish to speak.

Stacey Plassmann does not wish to speak.

Paula Chronister.

MS. CHRONISTER: Hi, my name is Paula

Chronister, it's spelled C-h-r-o-n-I-s-t-e-r.

Ive been involved with this process over the last year. I've attended every public meeting we've had. I've also served on the advisory group as a representative from the Palo Verde Neighborhood Association, of which I serve on the board there.

The Palo Verde Neighborhood Association is not directly benefitting from this, but it actually sits on the -- it's actually east of Country Club, so it's right on the edge of the service area for here and as a result of that TEP reached out to us to get involved.

One of the things that you've heard and I've heard literally everywhere I've been has been this idea of undergrounding. This is not a new idea. Every -- literally every time there has been an open forum on this, probably 99 percent of the people spoke to undergrounding.

Gayle Hartmann came up here and spoke and I agree with her, which is the idea you can actually put certain kinds of thing overhead in industrial areas and go underground in town. And I think that's a good solution. I liked what the last speaker had to say which is you guys are our representative now.

We've given all the input, we've actually had the opportunity to provide through this period of

time and we're now asking you to really think about the quality of life in Tucson and, you know, what the Tucson citizens actually want with this.

And this, again, has been just a consistent request not only through this TEP process but through the TEP process that I think happened, what, three years ago, six years ago, five years. Five years of the same request going on.

So please take this into consideration and recognize what the residents want. And that there is a solution that we can come together on, but TEP actually has to, you know, come forward with some additional funds or initial innovations in how we do things.

TEP also with the advisory group did talk about mitigations, that in the event that they got approval to be able to move forward that they would actually work with neighborhoods to actually look at mitigating certain kinds of things.

Those things could look like painted poles. You go out on Sunrise in this town and you'll see poles painted, and they sort of start to disappear. It looked like working with people around vegetation actually trying to make things much more visually palatable regarding things. And I would encourage in the event you actually do move forward with this that you actually ask

TEP to work very diligently with the communities affected in terms of actually implementing those mitigations. Thank you.

CHMN STAFFORD: Thank you. Up next we have Matt Somers.

MR. SOMERS: Sorry, Chairman Stafford, I decided to go and make some comments. My name is Matt Somers, S-o-m-e-r-s.

I have a few points to make. First of all, let's have a reality check on a couple things.

I would love to go ahead and have it undergrounded easily. Problem is we've already gone through the Broadway widening. It took one year to go one mile. According to the past history on this, there has been noted that it's five miles, it will take approximately five years to underground.

In order to get the underground, it's got to be a culvert 20 feet wide and 10 feet deep, because of the size of the line. Which means if you're trying to go on any street you're going to take out traffic for literally years. It's going to be awful. Having worked at the water department, you're going to find utility lines underground that you didn't even know about. So I love to have undergrounding but there is a problem with it.

I do understand that the preferred line is B4. I believe it's called B4. I would suggest C5. C5 goes down Stone from Grant, east on Speedway, comes back on Speedway, goes back down Stone and goes towards the downtown area. I believe this would be the best way to mitigate any problems with the neighborhoods that are represented today and have been represented in the past.

Okay. Especially for the reason that B4 won't work real well is because you have 40,000 students going to the U of A with 15,000 approximate support staff.

So therefore, you're going to have huge amount of people walking, driving, using their electric bikes and everything else all over the place. With these lines that are approximately 10 feet wide at the base, you are going to have visual problems on traffic. That would be awful on Euclid. I hate to go and say to use Stone but Stone is not used anywhere near as much. Okay.

And then, let's see here. The substation that is supposed to be on Vine is going to use one of the most deadly chemicals out there in order to exist.

Since they can't put five acres together to make it an outdoor substation and only two acres at the best, they're going to use a chemical that's going to have 200,000 times as bad in carbon emissions if you have

one cubic foot, if that is released, one cubic foot of that chemical it's going to wipe out over 200,000 cubic feet of air. That's how dangerous that is.

Europe has some substation chemicals for the same thing that is nowhere near as damaging to the environment and nowhere near as dangerous. I believe that needs to be also considered in this.

Okay. Again, I would love to go and have it underground in some wonderful way that could be done by magic. But it will not, and as I say it will be five years of problems with the -- with the traffic in the area.

Okay. Please do not use Euclid, though. That is one that would be awful.

Okay.

CHMN STAFFORD: You're over three minutes, sir.

MR. SOMERS: Oh, well, thank you and good luck.

CHMN STAFFORD: Thank you very much.

Up next we have Kim Franklin, who is a maybe. All right. None from Ms. Franklin. Joe Plassmann is a no to speak.

Jennifer Becker does not wish to speak.

Is it Mindy Bassie does not wish to speak.

Stephen Yozwiak.

MR. YOZWIAK: Hello, everyone. Mr. Chairman. So I don't live --

CHMN STAFFORD: Can you state your name and spell your last name for the record, please.

MR. YOZWIAK: Yes.

CHMN STAFFORD: Thank you.

MR. YOZWIAK: Stephen Yozwiak, it's Y-o-z-w-I-a-k, and I don't live anywhere near this proposed project. I live up in northwest Tucson. But I come down to visit friends and family all the time along the proposed routes of this project.

And I'm back in the Tucson two years ago from Phoenix, in part because I finally remembered as a student at U of A the beauty of the mountains surrounding the Old Pueblo, and it hurts me to consider how the viewscape of the Catalina mountains will be permanently compromised by this proposal.

I've been to the informational open houses, read the maps and the literature, talked to many experts about this proposal, and I object. I conclude that it's exceedingly possible to put these lines underground. Now, sure it will maybe cost a bit more. But don't think of it as a cost. Think of it as an investment. An investment in the future.

These tall poles and lines you're proposing, they would degrade not the nearby property values, but also in turn erode the value of adjacent properties leading to a cascading effect of dwindling desirability of the entire central city. This is simply unconscionable and extremely shortsighted.

If you approve this, what will you tell your children and grandchildren when they learn that you could have made a difference, that you could have made their world better? Let me say with the firmest resolution I can muster, I object to the Corporation Commission approving the proposed overhead lines recommended by TEP.

The preference of the multitude of residents who oppose this project must be heard and followed. We have an election coming up in November and if this is approved by the Corporation Commission, it will give the residents of this state, the voters one more reason to vote out the current regime and elect three Democrats to run the show now. Thank you very much.

CHMN STAFFORD: Thank you. I don't have any more sign-in sheets with public requesting to speak. Do we have anybody on the Zoom or on the phone?

A/V TEAM: Mr. Chairman, I have five online

participants who have indicated they wish to speak.

CHMN STAFFORD: Let's take the first one. I can't see any names to call.

A/V TEAM: Mr. Chairman, first will be Molly McKasson.

CHMN STAFFORD: Hello, Molly, can you hear us?

MS. MCKASSON: Yes.

CHMN STAFFORD: Can you please state your name and spell your last name for the record.

MS. MCKASSON: Yes. Thank you, Mr. Chairman. Thank you, Committee members. My name is Molly McKasson, M-c-K-a-s-s-o-n. I'm a long-time resident of Midtown Tucson.

State law specifically identifies a list of factors that the Line Siting Committee should consider when deciding upon a proposed project. Most of the factors suggest that the project can be permitted to cost more if the expense avoids inflicting a negative effect on a factor that the law includes in the list. Overheading the Midtown Reliability Project has a serious negative impact regarding three of the factors on the list.

For one, the project would violate the very first factor regarding the presence of official city

plans for future development. Tucson has enacted plans for gateway and scenic routes and for the Tucson University Area Plan that specifically call for the undergrounding of new ultimate lines within those areas, plans which overheading the project clearly violates.

The fifth factor suggests -- asks that the Line Siting Committee give consideration to scenic areas which is the very purpose of the gateway and scenic routes. The factor also directs the Committee to give consideration to the historic sites. The proposed project runs along or straight through a number of Tucson neighborhoods dating from the 1800s, they're additional designated historic neighborhood zones and that not coincidentally are also covered by the University Area Plan policy that no new utilities be constructed overhead.

The sixth factor calls for giving special consideration to the area's total environment. The health of the economy is a key element of everyone's total environment. Tourism is central to Tucson's economy. So is the ability to attract new businesses and jobs to Tucson. Both of these are jeopardized by having a string of 100-foot structures and transmission lines going straight through the heart of the city.

The factors the Committee is required to

consider give it the power to reject the power that does not adequately address these factors when there's a feasible alternative. We believe there is a feasible alternative when you've heard us tonight.

In terms of both technological ability and cost, the alternative is undergrounding where the City requires which is what TEP committed to do when it signed its last franchise contract with the City.

Thank you for recognizing that this project goes against state law. Thank you so much.

CHMN STAFFORD: Thank you.

A/V TEAM: Mr. Chairman, next I have Betsy Larson.

CHMN STAFFORD: Betsy Larson.

MS. LARSON: Hello, Chairman Stafford. My name is Betsy Larson, L-a-r-s-o-n.

I am president of the West University Neighborhood Association. First and foremost, we fully understand the need for updated infrastructure. The U of A, Banner and student towers have stressed our historic areas' infrastructure.

However, Tucson should not be forced to accept overhead lines through and above our core economic centers, historic zones, schools and homes. All routes presented will have a negative impact to our Old Pueblo.

For example, look at the preferred route. It will place the pole in lines across Speedway. It is the major route for students and parents and others coming to give our tax dollars who expect a beneficial town or a beautiful town and campus. Instead their first impression will be industrial poles and wires.

Coming from the south, the poles will graze elementary and high schools, leading across an iconic area known was the University Boulevard Bay Gate Square. This corridor is the main hub for all things U of A. It's ridiculous to think that TEP finds it reasonable to place the lines above such a busy and dense economic hub.

Because of our area's challenges, multiple zoning protections have been created. All neighborhoods, corporations and even the U of A must comply with the zoning protections afforded by the historic preservation zones, University Area Plan and Main Gate overlay. Why should TEP be exempt from these rules?

TEP customers deserve to have an Old Pueblo that they can be proud of. I beseech you, Chairman Stafford and fellow Commissioners, to hold TEP, UniSource and Fortis accountable. Tucson deserves better. Thank you.

CHMN STAFFORD: Thank you.

A/V TEAM: Mr. Chairman, next is Tim

Hagyard speaking on behalf of the Pima County Historic Commission.

MR. HAGYARD: Hi, my name is Tim Hagyard, H-a-g-y-a-r-d. And I'm a Commissioner on the City of Tucson-Pima County Historic Commission. And just our stance on the over -- overhead routing. We don't feel that -- we feel the routes under consideration have a negative impact on the existing historic neighborhoods and the community of Tucson and our historic and cultural resources.

We don't -- we don't feel that there is any of the routes that are available are not going to have a negative impact on the historic neighborhoods and our cultural resources.

And so there's been a lot of talk about the economic -- you know, the reliability of the electricity system, and I think nobody's against reliability of the electrical system.

But what we are against as a community is the impact, the negative impact of the economic, the historic, and cultural resources that it will negatively impact. If the conversation was are we going to put these lines through the Saguaro National Monument, it's a clear -- it's a clear idea that this is going -- would have a negative impact on the Saguaro National Monument.

You know, that it diminish it, it would -- and that's what -- that I feel and the historic mission feels it's going to diminish our neighborhoods.

So we don't feel that there is a route that's going to make -- that's -- that's going to have a positive impact on Tucson, and we think that the best alternative is to look to other resources or undergrounding of the system. Thanks.

CHMN STAFFORD: Thank you.

A/V TEAM: Mr. Chairman, next is Meredith Aronson.

MS. ARONSON: Hello, good evening, and thank you for making time for a public session today. My name is Meredith Aronson, A-r-o-n-s-o-n.

I had the pleasure of serving with the TEP Neighborhood Working Group. I am no longer part of my neighborhood association and not representing that organization in my comments tonight.

I would like to echo very strongly Molly McKasson's earlier comments with regard to the responsibilities of the Committee. I think we often put into contrast business needs relative to neighborhood or community needs.

And in this context, I believe it's important to remember quality of place, which has been

talked about a lot tonight, is as important to economic development as all of the other factors that folks like our chamber of commerce focus on.

The quality of place attracts businesses because it is a beautiful place for families to come and live. So it's not simply an aesthetic, it is part of a foundational aspect of our economy locally.

The fact that we have ordinance to protect our gateway and scenic corridors is essential in this decision in not undergrounding the full system, but along our scenic and gateway corridors the ability to make a clean decision to underground in respect for local law.

These are challenging times. We certainly recently saw the state go through a process of local decision versus state law with regards to housing. These are important conversations for us to be able to have.

But I do hope that the Committee and recommendations of the Committee in this context can take into account the strong response you've had tonight with regards to protecting the quality of place in the name of our economy in Tucson long term. Thank you for your time. I appreciate the ability to comment.

CHMN STAFFORD: Thank you.

A/V TEAM: Mr. Chairman, next and the last person who's indicated to us that they wish to speak is

Henry Knaack.

MR. KNAACK: Hi there. My name is Henry Knaack, that's spelled K-n-a-a-c-k.

And I'm a homeowner in Jefferson Park, and I'll try to make this quick.

I am with a group of us who want to underground lines. Many folks today have already stated better than I what the significance of undergrounding is, and what the stakes are if we don't.

The biggest issue to underground or not underground, though, seems to be that it keeps coming back to the cost, as stated not to be as much as 10 times what the cost would be to aboveground the lines.

It's my understanding that the organization Underground Arizona has done their own analysis of the cost for undergrounding and they may have found TEP's estimate to be highly inflated.

This is my main concern for comment today. Before any decision is made by this body I urge you to make any information you have or maybe still need to obtain transparent so that the public can understand why there is a disparity between the estimate from TEP and those underground experts, as that is the main rebuttal for undergrounding consideration. Thank you.

CHMN STAFFORD: Are there any other public

commenters on the phone?

MS. YONKERS: I'm interested in speaking.

CHMN STAFFORD: Please state your name.

MS. YONKERS: My name is Marie Yonkers, Y-o-n-k-e-r-s.

I'm a long-term resident of Sam Hughes and I do live in between Tucson Boulevard and Campbell. So the issue of aboveground electricity has certainly been significant in our lives.

I'd like to address something a little different. TEP speaks of the urgency of this project, claiming a decision must be made now. But the delay has been solely because of TEP.

TEP has been unwilling to follow not only our local regulations of the City, but also obligations it freely agreed to in its franchise contract with the City. It is why the project has stalled.

TEP could start the project immediately, tomorrow even, were it willing to follow city rules and its contactual commitments to the City.

The basis for public opposition is that TEP has not done this. Otherwise, there is broad backing for the project in Tucson and this includes both the Neighborhood Undergrounding Coalition of Tucson and Underground Arizona.

It is flat false for TEP to say that organizations such as these oppose the entire project. They do not oppose. To the contrary, they firmly support the project except that they and most Tucsonans simply expect TEP and the project to comply with our local laws and keep faith with TEP's contractual obligations to the City. Thank you very much.

CHMN STAFFORD: Thank you. Are there any other public commenters? We have all the sheets from the front? Beg your pardon? Is there anyone else who wishes to speak?

MR. YOZWIAK: Mr. Chairman, yes, just an informational point.

CHMN STAFFORD: You need to come to the microphone so we can get you on the record.

MR. YOZWIAK: Thank you again. Stephen Yozwiak, Y-o-z-w-I-a-k. First name is S-t-e-p-h-en, it's a common spelling.

Anyway, I was just wondering how long is it going to take? Is there a date certain when this panel will make a recommendation to the Corporation Commission? And then in turn, is there some potential date when the Corporation Commission might act on your recommendation?

CHMN STAFFORD: That's all set pursuant to statute. Under the statute, the Committee has 180 days

from the time notice goes out to render its decision.

Once that decision is transmitted to the Corporation Commission, they must rule on it no earlier than 30 days and no later than 60 days after it's submitted to them from the Committee.

Ms. Grabel, I think that's a correct interpretation of the statute?

MS. GRABEL: That was perfect, Mr. Chairman.

CHMN STAFFORD: That is the time frame we're working with under the statute.

MR. YOZWIAK: Thank you very much.

MS. GRABEL: And Mr. Chairman, we have TEP customer service representatives here to speak with anyone that has additional questions they want to ask.

CHMN STAFFORD: All right. TEP says they have customer service representatives here in the room that are available. Could they stand and raise their hand? So the people can see who they are and they can consult with them for answers to specific questions. There they are.

MS. GRABEL: And it's regarding their service, not regarding anything --

CHMN STAFFORD: Right. Regarding the project, yes. They probably can't answer questions about

your bill.

MS. GRABEL: They can do that, actually.

CHMN STAFFORD: Is your mic not on?

MS. GRABEL: No.

CHMN STAFFORD: Can we get Meghan's mic on? Ms. Grabel's mic on? Excuse me.

MS. GRABEL: It's okay. Yes. So they are here actually to answer questions about any individual service.

CHMN STAFFORD: Okay.

MS. GRABEL: Including their bills.

CHMN STAFFORD: Their knowledge is over all things TEP not just this project.

MS. GRABEL: Correct.

CHMN STAFFORD: Excellent. Are there any other public commenters?

A/V TEAM: Mr. Chairman, Meredith Aronson is asking if she might speak one more time to ask a question.

CHMN STAFFORD: Well, we don't really answer questions. Is it question about the project or is it --

MS. ARONSON: It's a question. I just learned that the lawsuit between TEP and the City of Tucson with regards to undergrounding was -- has been

handed down in favor of the City. And I was curious how that decision which is quite recent, obviously, how that might impact this Committee's decision-making.

CHMN STAFFORD: Well, that will have to be addressed through the process. I mean, I'm sure it will be introduced as an exhibit by one of the parties and the Committee will weigh it when they make their decision. All right.

MS. ARONSON: Thank you.

CHMN STAFFORD: With that, we conclude the public comment session. We stand in recess until nine a.m. tomorrow morning when we resume the hearing.

We are in recess. Have a good night.

(Proceedings recessed at 7:09 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206(J)(1)(g)(1) and (2).

Dated at Phoenix, Arizona, July 14, 2024.



JENNIFER HONN, RPR
Arizona Certified Reporter
No. 50885

I CERTIFY that GLENNIE REPORTING SERVICES, LLC, has complied with the ethical obligations set forth in ACJA 7-206(J)(1)(



GLENNIE REPORTING SERVICES, LLC
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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-355

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 9, 2024

Filed: July 23, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME II
(Pages 247 through 525)

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ACC - Docket Control - Received 7/23/2024 1:10 PM
ACC - Docket Control - Docketed 7/23/2024 1:34 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 247 to 525

INDEX TO PROCEEDINGS

ITEM	PAGE
Opening Statements	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour Route B-4	509

INDEX TO EXAMINATIONS

WITNESSES	PAGE
Chris Lindsey, Clark Bryner, and Erik Bakken - for the Applicant (cont.)	
Direct Examination By Ms. Grabel	255
Cross-Examination By Mr. Lusk	322
Cross-Examination By Mr. Dempsey	353
Redirect Examination By Ms. Grabel	381
Clark Bryner and Larry Robinson - for the Applicant	
Direct Examination By Ms. Grabel	385
Direct Examination By Ms. Hill	456

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	--
TEP-2	Map of Proposed Project	21	--
TEP-3	Testimony of Clark Bryner	52	--
TEP-4	Testimony of Chris Lindsey	54	--
TEP-5	Testimony of Erik Bakken	57	--
TEP-6	Testimony Summary of Larry Robinson	386	--
TEP-8	Witness Presentation	49	--
TEP-9	TEP Ten-Year Plans	58	--
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	--

//

INDEX TO EXHIBITS (Continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	--
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	--
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	--
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	--
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	--
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	--
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	--
TEP-10	Exhibits Regarding Notice Requirements	58	--
TEP-10A	Notice of Hearing	58	--
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	--
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	--
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	--
TEP-10E	Map of Notice of Hearing Sign Locations	58	--

//

INDEX TO EXHIBITS (Continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10F	Photographs of Sign Placement	58	--
TEP-10G	Example of Sign Contents	58	--
TEP-10H	Notice of Service to Affected Jurisdictions	58	--
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	--
TEP-11	Receipt of Filing Fee	58	--
TEP-13	Tour Itinerary/Script/Protocol	254	--
TEP-21	Letter of Support from University of Arizona	368	--
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	--
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	--
BUMCT-1	Testimony Summary of Mark Barkenbush	37	--
BUMCT-2	Witness Presentation	37	--

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:05 a.m. on July 9, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
DAVID FRENCH, Arizona Department of Water Resources
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns
(via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public
DAVE RICHINS, General Public
JOHN GOLD, General Public

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CHMN STAFFORD: Let's go back on the record and resume the hearing for line siting case No. 232.

All right. A couple things. We're going to do the tour on Thursday, right, Ms. Grabel?

MS. GRABEL: Yes. That's correct, Mr. Chairman.

CHMN STAFFORD: Okay. So have the members seen the itinerary? It's exhibit --

MS. GRABEL: Is it TEP-15? 13.

CHMN STAFFORD: 13. That's the tour route and itinerary. So make sure members plan accordingly for Thursday. You probably want to dress extra casual for that outing.

And then I understand that the superior court issued its decision yesterday?

MS. GRABEL: Yes, Mr. Chairman, it did.

CHMN STAFFORD: All right. Is a party going to enter that as an exhibit? I'm looking at you, City of Tucson.

MR. LUSK: Thank you, Mr. Chair. Roi Lusk for the City of Tucson. Yes. We prepared an exhibit to be filed this morning with docket control. And I have physical copies being prepared right now. We'll provide them at a break.

CHMN STAFFORD: Okay. And the Proposition

412 and the abstract. That was the word I was trying to recall yesterday was "abstract."

MR. LUSK: Correct. We have that included in the physical exhibit as well, and we'll e-mail them to the Chair and the parties as well.

CHMN STAFFORD: Excellent. Thank you.

All right. Ms. Grabel.

MS. GRABEL: All right. Thank you.

CHRIS LINDSEY, CLARK BRYNER, AND ERIK BAKKEN, (cont.) called as witnesses as a panel on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

BY MS. GRABEL:

Q. I believe we left off on Slide 41, Mr. Bryner.

A. (Mr. Bryner) That's my recollection, yes.

Q. Okay. Let's go ahead and pick up.

A. (Mr. Bryner) Okay. So we were describing the various components of the Midtown Reliability Project. So we just kind of went over the substations. And I was just about to start talking about our transmission line.

So we talked about the DeMoss Petrie Substation,

the Vine Substation, and the Kino Substation, and we needed a transmission line loop that connects those substations for reliability purposes, to add additional capacity, all the reasons we discussed yesterday.

So for this transmission line TEP proposes to use our standard 138kV steel monopole structures. So the photo on the -- on the left-hand screen on Slide 41 shows one of those typical structures. If you want to see all of the designs of the various structures that might be used in the project, I'll refer you to Exhibit G-1 of our application, which is TEP Exhibit 1.

We do plan to use a single circuit design except in any areas where we might be colocated with a 46kV line or there are some areas where depending on the routes that are selected, we might have a route into and out of a substation, and they would share the same pole lines. In those cases it would be a double-circuit structure.

But the reason why we plan to elsewhere use the single-circuit structure is because, as you heard from some of the public comments last night, there was concern about the size of these structures and, you know, maybe it not being in character with going through some of the residential areas.

And so by using a single-circuit structure that was one of the ways that TEP looked at to try to really

minimize and bring the size of these structures down. By using that design we're able to use a pole that's a little bit -- a little smaller diameter pole construction, so just a little bit less obtrusive.

CHMN STAFFORD: What is the diameter of poles?

MR. BRYNER: So that varies. And I'll share you my understanding. And when we get to our next panel, Mr. Robinson may want to correct me.

CHMN STAFFORD: Okay.

MR. BRYNER: But the typical tangent, so in a straight line structure, they're going to be around 30 inches in diameter at the base.

You get to some of the turning structures that are probably the ones that people focus on the most because they're located usually at intersections where we're making a turn, and so you're stopped there with your vehicle, and you're looking at this pole and you're saying to yourself, I could drive my car through this, those structures are larger. They're not really big enough to drive your car through, but they are larger.

CHMN STAFFORD: So, like, 60 inches as opposed to 30 inches in diameter you're talking about?

UNIDENTIFIED SPEAKER: Yeah, that's close. Between five and --

CHMN STAFFORD: You need to give the answer.

UNIDENTIFIED SPEAKER: Yeah. Sorry.

CHMN STAFFORD: The man behind you isn't sworn or identified.

MR. BRYNER: So that's correct, around 60 inches, five feet in diameter.

CHMN STAFFORD: Just trying to get a ballpark of what we're looking at. Thank you.

Please proceed, Ms. Grabel.

MS. GRABEL: Thank you.

BY MS. GRABEL:

Q. Go ahead, Mr. Bryner.

A. (Mr. Bryner) And so the typical structure height, again, is around 75 feet high. So if you look in our application, we do say that we can have structures up a to 130-foot in height. Those are atypical.

Again, I know that listening to the public comment last night there's a lot of folks that tend to gravitate towards the taller structures. Those are needed in certain circumstances where we're crossing over -- and you'll see on the field tour we're crossing over the Aviation Highway, which is a limited access highway, crossing over the railroad tracks, crossing over bridges. Things like that just require you to use some

taller infrastructure for a couple of spans to get up and over that so we can maintain our clearances. But typically they're much lower and around that 75-foot in height.

Q. Mr. Bryner, how many of those taller poles would be needed on the preferred route?

A. (Mr. Bryner) Let me visualize here. I really can only think of one spot where we'll have those taller structures, so that would be where we cross the Aviation Highway because we cross the railroad and Aviation Highway in the same location.

Q. Thank you. Please continue.

A. (Mr. Bryner) Yeah. So, again, on to the span length of these poles or this line, we would typically have one pole about every 600 feet, which is a little bit shorter than what we would have on a line that's going through a more rural area where we're able to really maximize those spans.

But it would be much longer spans than your typical lower voltage distribution spans that are two to three hundred feet, so we're talking about 600 feet on these.

So, again, that lends to the argument that we were making yesterday that as a result of this we will remove a lot of distribution lines and add these lines.

So you'll take down a lot of poles and you'll add far fewer poles, while they will be taller.

So another thing I wanted to just talk about is your standard poles are weathering steel. We talked about that a little bit yesterday. But we do recognize that weathering steel, it does -- it doesn't blend in as well in some surroundings as others. And so we do want to ask the Committee to grant us the flexibility to use galvanized poles and/or painted poles if needed in certain areas to try to minimize the disturbance that these poles might cause to the area.

So one of the commitments that we've made with the public is that depending on the route selected, if it goes through a residential neighborhood, that we will work with that neighborhood specifically to determine what is the right pole finish for them.

And so it doesn't have to be a one-size-fits-all solution for the whole route, but our standard is the weathering steel, but we want to try to blend in with the community to the extent that we can.

I do want to put on the record, if I haven't already, that TEP doesn't really like painted poles. So they look great up front. I know there was a comment last night about some poles that we have on a 138kV line up I think it was near Snyder. And they look great

initially, but they fade quickly to just a really nasty color. And then they start to peel. And they're just a real nightmare from a maintenance standpoint. So we can do them. We will build them. It's not our preference.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: A question for Mr. Bryner.

I know you're trying to be less obtrusive in neighborhoods. The cellular companies have some up with a solution where they camouflage some of the things to look like cactus, to look like pine trees. Have you ever thought of anything like that in a neighborhood to make it look like a tree up to the point you get close to the wires?

MR. BRYNER: Thank you, Member Gold. There were some comments that we received early on in the project about what can you do to make this blend in, especially, you know, there is a lot of historic areas that this project goes through and are there things that you can do to make this, you know, kind of fit in with the surrounding better.

As a result of that, we did reach out to a Public Service Company of New Mexico, PNM, because they have lines, like, in Santa Fe and some of those areas. We reached out to one of the utilities in Texas to try to

see what they were doing because we'd heard that they were doing some creative things. In the end, we learned that they were using weathering steel poles.

MEMBER GOLD: Using what?

MR. BRYNER: Weathering steel poles, which is our standard pole.

MEMBER GOLD: So your weathered steel pole is COR-TEN?

MR. BRYNER: COR-TEN, yes.

MEMBER GOLD: Which the rust protects it.

But did you touch base with a company like Comcast to see what they're doing?

Because they have more towers in residential neighborhoods, and they've masked them pretty well.

MR. BRYNER: We did not.

MEMBER GOLD: Okay. Maybe you should.

MR. BRYNER: I did see a Mickey Mouse pole that was shared with me near Disney World. There are creative things happening.

So there are creative things happening. There were a few other creative comments as well since it goes past the university disguising poles as a basketball player or some different things. However, we've not run with those ideas, though.

The last thing I want to mention on this -- Chair, are we good to continue? Sorry.

CHMN STAFFORD: Yes, please.

MR. BRYNER: Yeah. So the last thing that I wanted to discuss on this slide was just our wire that we plan to use. So our typical wire is a non-specular aluminum conductor.

However -- and this, again, is one of the comments that we heard last night -- we're looking into using an advanced conductor that allows the line to when it's operating at -- when it's fully loaded operating at high temperatures that it will sag less, which if we're able to use that, it would allow us to bring the height of the structures down even more.

CHMN STAFFORD: What's the minimum ground clearance for the line? 30 feet? 32? What is it?

MR. BRYNER: Again, I'm not the expert on that. 25 feet is my recollection. But when we have Mr. Robinson up on the panel, he can answer that question.

CHMN STAFFORD: And that's maximum sag we're talking; right?

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay. Please continue.

MR. BRYNER: I believe that actually

concludes my remarks on this.

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: I have a question for Mr. Bryner.

One of the comments was about the use of gas in your testimony you talked about that because of the size of the substation. So the gentlemen that spoke about it made it sound like you were going to poison everybody.

Can you elaborate on that?

MR. BRYNER: I'll share some thoughts, and Mr. Bakken might have some thoughts as well.

So the gas that they're talking about is SF6 or sulfur hexafluoride. So it's a nontoxic, nonflammable gas that we use in any of our gas-insulated equipment. So we have breakers that use that gas today, the GIS substation, so that would be the breakers and the bus are all insulated with that gas.

It is a greenhouse gas, and that's where some of the concerns come around.

Mr. Bakken, do you want to add any more?

MR. BAKKEN: Sure. I can add just a little bit, Clark. That was a great explanation.

But SF6 does have more potency, I guess I

would call it, in terms of its carbon emissions. And if it is released it is more potent than, say, you know, just CO2 that's released through some of our other operations.

That said, we track that very closely. And in terms of any releases we have with SF6, which, again, as Clark mentioned is nontoxic, it's in the pounds. So very minimal amounts, de minimis amounts in terms of the releases that we have for SF6. It's tracked and contained very closely.

MEMBER MERCER: Okay. Thank you.

CHMN STAFFORD: Now, is that -- you said it's more potent than CO2.

What about compared to methane?

MR. BAKKEN: I believe it's more potent than methane, but I don't know the order of magnitude in terms of kind of, you know, kind of what that CO2 equivalent is for -- between methane and SF6.

CHMN STAFFORD: But I'm assuming the system's designed to leak zero; correct?

MR. BAKKEN: That's correct.

CHMN STAFFORD: Okay. So if something does leak, then there's some kind of problem, there's a malfunction or a crack in the system or something?

MR. BAKKEN: Typically a seal.

CHMN STAFFORD: A seal?

MR. BAKKEN: Yeah.

CHMN STAFFORD: Okay.

MR. BAKKEN: That has a malfunction.

CHMN STAFFORD: And how many of these type of substations do you currently operate?

MR. BRYNER: I can answer.

So currently we have one GIS substation. That's our Tucson Substation. I showed you a photo of that yesterday. And to date that went in service somewhere around the 2010 time line. And to date we haven't had any leaks at that substation. And we do have hundreds of breakers that have the SF6 gas insulation.

CHMN STAFFORD: And so you just said you've had zero leaks with that. You haven't had any leaks or any discharges of that chemical from that substation in the approximately 14 years it's been operating?

MR. BRYNER: Correct.

CHMN STAFFORD: Excellent. Thank you.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: Yeah, just to help support the discussion on SF6, my prior employment was with the semiconductor industry. And SF6 was one of the highest global warming potential compounds on the list.

And with the semiconductor industry trying to move towards reducing their greenhouse gases over a period of time, it was one of the first things they looked at to find alternative chemistry in the semiconductor manufacturing process.

CHMN STAFFORD: Do you know what they ended up replacing it with?

MEMBER DRAGO: I do not.

CHMN STAFFORD: They're still looking?

MEMBER DRAGO: Yeah. No, I do not.

CHMN STAFFORD: Okay. But they did, or they're still looking.

MEMBER DRAGO: No, no. They did -- they were able to remove it from the process and then go to something else that had a lower global warming potential.

CHMN STAFFORD: Okay. Thanks.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: So thank you for walking us through the poles and the heights. Pardon me.

Yesterday we had a citizen ask -- she works for Department of Energy. She asked a couple questions about the nature of the conductor that you're using.

She asked a thoughtful question about whether 138kV was enough to support this community

long-term and would we be back at the table having a conversation in ten years was kind of her time line that she identified.

You talked about the saturation study yesterday, so we kind of understand how you came to the 138kV.

Can you talk about the life of this system and how long TEP projects that the 138kV is adequate for the City?

MR. BRYNER: Okay. Great question, Member Hill.

If you're okay, I'd like defer that one over to Mr. Lindsey.

MEMBER HILL: That's great.

MR. LINDSEY: So, Member Hill, that's a great question. And being a planner --

MEMBER HILL: Me too.

MR. LINDSEY: -- that's a really hard question in most cases to answer, especially when you're on the record.

But in this specific case, fortunately for us, we did conduct that saturation study. And that's brought a lot of confidence to this solution for us for a couple reasons.

One, Midtown, I know we're talking about

all the modernization and growth that we've experienced, but that saturation study also extrapolates out what that would look like at full buildout. And so there is a limit for what can get built within Midtown.

And so we modelled that in the saturation study. And so just to kind of give a bounds to what that looks like, our saturation study when complete anticipated load growth over twice of what our load is today. And so it was an extreme I'll call it case.

Now, we didn't include electric vehicles in the study back in 2018. It was still I'll call it a little bit of a fringe idea. We also did not include any of the large load that we're starting to experience requests for data centers and things of that nature.

So while there are some pieces that may be missing if you fast forward to today, from a Midtown perspective we feel very confident that this solution won't just help us improve reliability, help support all the retirements that we're talking about on the 46, but support well into the future.

I mean, this is going to take us the life of the system we're talking about building another 70 years plus. We wouldn't anticipate a need for another transmission line in Midtown.

Now, in addition to the line, the way we're

designing the substations has the capacity needed to support the distribution system. So Vine Substation is going to have three transformers. A typical sub only has two. So we are building some extra capacity in there for the long-term.

There is also other -- when we touched base on it just real high level about access to DeMoss Petrie and some of the advantages of moving this line from Tucson to DMP, we have several other projects that are getting developed now and actually moving into construction near term where we're going to be building a 230 line -- a 230kV line in conjunction with WAPA that will connect to DeMoss Petrie.

And so while that line will not run through Midtown or Downtown, it does bring a higher voltage into the area. And that's one of the critical points of this project is we're going to get access to that transmission, that higher voltage with this project.

And so we don't anticipate well into the future because of that saturation study, like I said, brings us a lot of confidence with this solution. But it's also key that we connect it correctly.

We can't just take the line any which way to close the loop. Bringing it to DMP is critical for answering that question with confidence. So access to

the 230kV system really adds stability to our system, but also supports this project.

MEMBER HILL: Okay.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I guess I should ask, Member Hill, were you finished, Natalie [sic]?

MEMBER HILL: I just wanted to do a little bit of follow-up, if you don't mind.

MEMBER KRYDER: Okay. Let her go ahead.

MEMBER HILL: Being a planner myself, land use has changed a lot in the city. A lot of density has been added, more demand is associated with that.

Was the saturation study in 2018?

MR. LINDSEY: Yes.

MEMBER HILL: Okay. Can you talk a little bit about how you worked with the City to determine that demand and how you use land use, or can you talk a little bit about the cooperation that you guys have around that?

Because I really do want to feel confident and everyone else to feel confident this 138kV is good for a long time. So --

MR. LINDSEY: Do you have -- Clark, do you have some information on that?

MR. BRYNER: I can --

MR. LINDSEY: I mean, so I can talk about --

MEMBER HILL: Or we can save it for another panel if it's more appropriate for another panel.

MR. LINDSEY: So I can step back into the process from our 2018 saturation study. And when we went through that process we did have several meetings with the City and the County and the surrounding jurisdictions to get that study started to ensure that their plans and future plans and all that information was updated at the time.

MEMBER HILL: Okay.

MR. LINDSEY: And then we took that and we extrapolated it out; right? So we have really good data on what the system looks like today, what the loading looks like by land use today. And so we use that information -- well, I'm going back to 2018, but we used that information to extrapolate out what it would look like in the future.

And then once we got done with the study -- and it's several steps because it's not just looking at land use and loading within our service area, but it's also looking at how many substations need to be built to support that future state and what the transmission system also needs to look like to support twice the load,

and that's a big undertaking.

And so once we get to that point, then we -- then we -- I called it the road show -- we went around and met with all of the jurisdictions once again and all of their planning teams to at least have some conversation about does this seem to work? Does this make sense?

And it is a little hard to talk through the future with everybody and understand the needs, but those were very good conversations with those teams. And I think everybody left those meetings with an understanding that what our analysis looked like at the time was reasonable.

MEMBER HILL: Okay.

MR. LINDSEY: Now, I will say that's a type of study that you -- we've done it twice, so we did it in 2006 or '07. Once again in 2018. We're talking about is it time to do it again.

But back to how we designed or how we looked at this study in particular, we did feed in all of the 46kV retirements into the study, so we did not assume any 46kV infrastructure would remain at that buildout point in time.

There are some other substations that were identified in that study to the north of Midtown that

would need to be constructed in the future.

And so I think to hopefully bring some confidence to the solution here, this project as well as other future substations that would hopefully be located within close proximity to a 46kV retirement, so more of an upgrade or an existing 138kV line, would be the solution to support the system outside of Midtown.

So we do have some optionality of kind of cascading those upgrades, but from a Midtown perspective, I feel very confident that the solution will outlast the life of the facilities.

MEMBER HILL: Okay.

MR. LINDSEY: So we're talking 70-plus years.

MEMBER HILL: And then just one last question. She also mentioned advanced conductors and the technology evolving in that and the ability to push more through lines.

Can you talk about the lines a little bit that you're going to use and what you see on the horizon potentially and supporting that?

MR. LINDSEY: Sure. You bet, Member Hill.

So it is -- it has been an ongoing conversation related specifically to this project because, as Mr. Bryner mentioned, some of the advanced

conductors -- and it's more about the support structure within the conductor -- allow us to design lines with less sag for the high contingency operating temperature we need for these transmission lines. And so it's very high on our list for evaluation for this project.

But also in my new job we're looking out at the transmission system into the future to support all of the renewable integration. And it's not a reasonable solution to just go build a whole bunch more transmission.

So making use of existing is a big piece of our thought and strategy moving forward, and those conductors fit right into that conversation as well. So repurposing structures that we have on our existing EHV, our 345, our 500 possibly one day is very much part of the conversation from an advanced conductor perspective.

But really, I mean, we do have to factor in the cost of that conductor, the cost of a new standard for TEP, the cost of training our new -- our crews to install, operate, maintain. And so it's a big conversation. But we're kind of on the cusp of making that addition to our standards.

MEMBER HILL: Okay. Thank you, Mr. Lindsey.

Mr. Kryder. Member Kryder. Sorry.

CHMN STAFFORD: Member Kryder, you had a question?

MEMBER KRYDER: Yes. A follow-up, I think.

Let's say that the recommended pathway is the one that finally gets set in place, and, lo and behold, in spite of all of your planning we all know the old axiom, you know, planning is difficult, especially if it's about the future.

And so suddenly you've got 15 more high-rises that go up and et cetera, et cetera.

Can additional lines be applied to the poles and the undergrounding that is on this pathway? Speak about that, if you would, please.

MR. BRYNER: I'll start off. And then I'm sure Mr. Lindsey has something else he'd want to add.

So I just want to -- I want to point out -- let's see if this comes up --

So on this existing pole structure on Slide 41, so you see the -- these are insulators sticking out on this side that are supporting the conductor. So what you may not see in the photo here but there's brackets there that will accommodate another set of insulators, so this is actually a double-circuit capable structure.

I testified that we plan to use

single-circuit structures, so they wouldn't have this capability with what we're currently planning.

Now this particular pole is located just outside of our Kino Substation on our preferred route, which I know we haven't gone over those just yet, but Route 4, it would actually take advantage of these existing poles and place our new circuit on that other side of the poles, so you wouldn't have a second circuit.

Now, the disadvantage of us trying to minimize the size of these poles to better fit in with the neighborhood is we wouldn't have that flexibility in the future to add another circuit without replacing structures and doing, you know, a lot of other work if the need arose.

MEMBER KRYDER: Thank you very much.

On the aboveground poles, I think I conceptualized pretty well what you're talking about.

What happens where you are underground? Is that -- I mean, this looks expensive but feasible.

Does the underground sections of the preferred route lend itself to adding additional circuitry?

MR. BRYNER: So, I guess, let me clarify one point there, Member Kryder. We don't have any underground sections of our preferred route. We're

proposing an entirely overhead route.

MEMBER KRYDER: Thank you. I was wrong in my assumption on that. Thank you.

MR. BRYNER: No. And I think that was -- again, from the public comment last night I think there is some misconceptions not just from you but even from the public that we do plan to put some of this line underground. 100 percent of this transmission line is proposed to be overhead.

What we do plan to do is put some of the lower voltage distribution lines underground, which will result in eliminating a lot of overhead infrastructure in the area.

MEMBER KRYDER: Thank you very much. That is very clarifying.

Back on this, you pointed out on the structure that we see on the screen that you could put something on the left-hand side of that pole because it is currently existing.

Do I have that right?

MR. BRYNER: That's correct.

MEMBER KRYDER: Okay. If the pole was whatever your next incremental size is, 15 feet higher or 50 feet higher, or whatever it is, can you put another section lower than the existing lines?

Or the new line, if it went on the left-hand side of this pole, can you add another layer like they do on some of the wooden distribution lines that I see?

MR. BRYNER: So I think I'm following what you're saying, Member Kryder.

And so that would be kind of a stacked configuration is what we would call that. I know you'll see some of the older wooden poles that they'll be retrofitted with we what call a bayonet where you kind of make them a little bit taller.

I've never seen that with a steel pole. I think we'd be pretty uncomfortable with that. Mr. Robinson, again, would be more the expert on that. But we can design these poles to accommodate that in a vertical configuration where you have a taller pole.

Our typical double-circuit design, it wouldn't be any taller. It would just be a little more robust.

MEMBER KRYDER: Okay. Thank you.

Then the follow-up corollary question would be since you've got the pole, you've got the right-of-way, you've already made enemies of friends as the case would be of having the pole there, can you -- could you arguably put in one that's -- replace the pole

and make it the next size bigger and add circuitry that way?

MR. BRYNER: So depending on the right-of-way, the space that's available, yes, we could do that. But that would be dependent on other factors that we'd need in order to maintain our safety clearances.

MEMBER KRYDER: Okay. I'm trying to avoid anybody ever in the future having to sit through all of this joy.

CHMN STAFFORD: Thank you, Member Kryder.

Please continue, Mr. Bryner.

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: Let me get on camera for you. Can you see me?

CHMN STAFFORD: Not yet.

MEMBER SOMERS: Okay. Somebody can see me. Excellent.

CHMN STAFFORD: There you are.

MEMBER SOMERS: I just wanted to close -- thank you as long as everybody can hear me as well.

I just wanted to close out some questions on FS6 before we get too far ahead.

Mr. Chairman, you had asked and received an

answer on any releases in normal operation of SF6 in the environment, and the answer, as I understood it was, no, there has not been a release of that chemical.

But that's only one -- you know, accidental release is one way. There are other ways that this could be released. Faults in the system, for example, arcs between equipment as well as fire, external fire, could be a release.

Are any of the witnesses aware of any release of SF6 within their system that resulted from either of these nonnormal operational incidents?

CHMN STAFFORD: I think we're looking at you, Mr. Bryner.

MR. BRYNER: I think Mr. Bakken is going to take that.

MR. BAKKEN: This is Erik Bakken.

So to try to clarify, we do have releases of SF6 typically from a malfunction like Mr. Bryner was mentioning of breakers, and we track that very closely. They're designed, right, to be zero release or to not have that type of malfunction, but they happen.

We have had zero releases from the gas-insulated substation, Tucson Substation, since we -- since the inception of that GIS substation.

So hopefully that answers your question,

Member Somers. We have had releases. We track it very closely. It's part of our sustainability program because of the CO2 implications. But it's not a zero release system, right, because there are malfunctions with the equipment that do result in a minimal release.

MEMBER SOMERS: So extraordinary circumstances outside of normal operations that can cause those releases, fires, arcs, that type of thing, but very infrequently?

MR. BAKKEN: I wouldn't say that it's necessarily always caused by a fire or an arc. It could be a seal that's faulty. I think we talked a little bit about that that where that results in a release.

MEMBER SOMERS: Okay. All right. Thank you. I just wanted to close the loop on that. I appreciate it, Mr. Chair.

CHMN STAFFORD: Thank you, Member Somers.

So you said you have not had any releases from that substation of a GS6?

MR. BRYNER: The SF6?

CHMN STAFFORD: The SF6.

MR. BRYNER: Correct. Yeah, the Tucson Substation has not had releases.

CHMN STAFFORD: Okay. If they had, you tracked them as part of your carbon tracking system?

MR. BRYNER: So as part of our maintenance program that we have on those breakers, we check those. We have an annual inspection that we do on all of those breakers. And we weigh extensively. When we put new gas in, we weigh that gas. And we -- it's a lot of work, a lot of effort that we put into that, and we report those numbers up to the EPA on an annual basis.

CHMN STAFFORD: Okay. So, like, is that for -- do you have to extract the gas and then put it back in to extract it, do servicing, and then put it back in there?

MR. BRYNER: You would only do that if it was -- if there was some contaminant in it. Typically you're just adding pounds.

CHMN STAFFORD: Okay. So I guess if you're adding it, it's replacing it somewhere?

MR. BRYNER: That's correct.

CHMN STAFFORD: Is that some from a chemical breakdown or is that from a release?

MR. BRYNER: That would be from a release. When we add gas, that means some gas left --

CHMN STAFFORD: Okay.

MR. BRYNER: -- through one means or another.

CHMN STAFFORD: Right. And it has to be --

if it's full, it has -- to add more it's got to take the place of something else.

MR. BRYNER: Correct. So our releases are tracked by what we add.

CHMN STAFFORD: Okay. And so how much have you -- so what's the capacity of the gas when it's full, and then how much have you added over the years, I guess?

MR. BRYNER: You're talking throughout our system?

CHMN STAFFORD: I thought it was only this one substation that has it.

MR. BRYNER: So that one substation it would just be what we added to begin with. And we could get those numbers. I'm not -- I don't know -- I don't have the number right now.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would be interested in the whole system, the breakers and your other components that use the gas.

MR. BRYNER: We can get that information and share it with you after a break.

MEMBER LITTLE: Great.

CHMN STAFFORD: Excellent. Thank you.

Any other questions from members?

Ms. Grabel.

MS. GRABEL: I do have a couple of redirects. It's not really redirect, just some follow-up before we close out this panel.

BY MS. GRABEL:

Q. Mr. Lindsey, so yesterday you were asked a question by one of the members about whether if this project was not approved it would jeopardize the reliability of the Midtown system.

And I believe your answer said, you know, we have the obligation to serve the area safely and reliably, and we'll do everything we can to keep it hopping along or whatever your phrase was.

Can you please elaborate a little more on why continuing to band-aid the existing system and rebuilding that 46kV system is not ideal from a reliability and cost perspective?

A. (Mr. Lindsey) Yeah. I'd be happy to. I think I referred to it as limping along.

Q. Okay. So hopping along?

A. (Mr. Lindsey) So hopping is a little more positive, so we'll go with that.

So, Mr. Bryner, I guess I can run the slides, or do you mind jumping over to Slide 13?

MR. BRYNER: Grace, could you help us out

there.

MR. LINDSEY: Okay. Thank you, Grace.

So I spent a little time this morning making some notes as to what our next steps would look like if we didn't gain approval for this line. And -- and so I'm going to walk through just a few high-level thoughts here, but please note we have not done any power flow analysis, we haven't done any transmission planning-type studies, and so this is really a conceptual conversation, but I think it will get the point across that without this project we're only looking at additional infrastructure that would have to be built, whether it's 138kV or 46kV.

BY MS. GRABEL:

Q. And just to clarify, you haven't done any power flow studies on rebuilding the 46kV system, you have done them on the MRP project; correct?

A. (Mr. Lindsey) Well, yes, we have done them specific to the MRP, but some of these what-ifs I'm going to talk about on the 138kV side have not been studied, and so they very well may not be available.

But with that said, so if we were to leave the hearing here without a route between Kino to Vine to DeMoss Petrie like we've been talking about the past few days, you can see on the screen on the left focusing on

the 138kV system that's -- is that fuchsia, purple?

So the first step we would be at least from my perspective we would be prioritizing a new line from Kino to somewhere; right? We made a lot of promises to the community down there that the construction of Irvington to Kino is the first step of our improvements in the area. And we've made promises that we plan to keep to put that community on the looped transmission system.

So Kino Substation was designed to be sourced from a looped 138kV system, and our intention would be to complete that loop. The transformers at the substation are redundant, and so we really would want to complete that project and get the full benefit out of that investment.

And so in all likelihood, we would be looking at connecting a new line between Kino to this one -- so between Kino and 22nd Street. So that would be the easiest 138kV connection to make from a distance perspective.

The configuration at 22nd is set up to accept another transmission line. And I believe we have a CEC to build from Irvington to 22nd at some point in time. So that could in some cases replace that project. That could cause other issues downstream.

So my big disclaimer at the beginning of this is

this is conceptual, we'd have to look at it, but that would be an obvious step.

We do have another substation that we're constructing in this vicinity now to support the distribution in the area. And maybe I'll make a plug to what we were talking about earlier, Member Hill. That's another other investment we're making in and around the Midtown area that makes us feel very confident about this solution for the long-term.

That could be an option to build a line from Kino to what we're calling Cottonwood Substation. But we have made promises to that community that we would limit the transmission line in the area or the transmission lines in the area, and the need for that substation was simply to support the distribution.

So a lot of this builds on itself. So from a 138kV perspective step one connect Kino. That would be in our very near term priorities. And we'd be kicking off a process for outreach and bringing that back to this Committee as quickly as possible. So it would probably bump everything else you got, Mr. Bryner, so we could get this done.

The other implication of not connecting Kino here up to DeMoss Petrie is that, as we've talked about and we talked a little bit about it with your question,

Member Hill, bringing a 230kV line into DeMoss Petrie that's planned that's been developed that will start construction shortly, designs are done, procurement is midway, I mean, this project is moving forward. If we had a zoomed out map of our system, I could explain it a little more.

But essentially that line will connect our Tortolita Substation to our Vail Substation. And today those are two of our three major import points to our system from remote generation sources.

By connecting Tortolita on the north side of our system to Vail on the south side with a stop at DeMoss Petrie, it essentially turns DMP into an import point.

So today, envision DeMoss Petrie is somewhat the center of our grid and the bottom of the load pocket, so it's kind of a sink. It's just the bottom of where the system sits. I'm trying to explain it clearly.

But once we complete that project, it really turns it into a source. So it's going to move it to the top from a support perspective.

What that means is we're going to run into upgrades that would need to happen outside of DeMoss Petrie. So, again, some comments we talked about yesterday, this project really brings a lot of value from almost every level of our system from a performance

perspective.

So without this line connecting to DeMoss Petrie, we would also need to make upgrades outside of DMP at the 138kV level in short order. So it's hard for me to say when we would be back talking about that. We would need to scope it. We would need to do all of our outreach. We would need to determine the optimal solution. But it wouldn't compare in any fashion to what we're talking about today with Midtown. It would just be additional investment in lieu of really this optimal solution.

So that's -- that's the 138kV picture we would be looking at, again, to recap briefly additional line from Kino. So five-plus miles of transmission going through to 22nd or a big question mark and additional upgrades outside of DeMoss Petrie over time.

Q. And that -- Mr. Lindsey, so all of these new transmission facilities that you've just described to the Committee, would be in addition to the $50 million we need to spend to replace the existing 46kV system in the Midtown area; correct?

A. (Mr. Lindsey) So that's correct. And I've got some notes on -- we're brainstorming this morning, which is dangerous -- but on 46kV just thoughts if we wanted to look at a map and talk about the implications of that.

Q. I don't think the Committee needs to hear that. We just wanted to elaborate on the additional expense that would be required if this project were, in fact, rejected and the reliability issues that would be associated. Correct?

A. (Mr. Lindsey) That's correct.

MS. GRABEL: Go ahead. I think Ms. Hill has a question.

MS. HILL: I'm sorry.

BY MS. HILL:

Q. Mr. Lindsey, could you just clarify. So what you're talking about, though, in terms of the 138 system and the additional lines, multiple additional lines that you might have to build, that does not solve the ultimate reliability issue that you have in Midtown with the 46kV radial system; is that correct?

A. (Mr. Lindsey) That's correct, Ms. Hill.

So this would simply allow us to loop in the Kino Substation and improve the reliability up to today's standards, modernize essentially you can imagine I'll say south of Aviation Highway, which is the somewhat freeway that's marked as 210 on the map there. So south of that area, we would consider that modernized with our 138kV solution and our distribution upgrades and our 46kV retirements. And so that area of town would benefit from

the reliability we're talking about today.

So the Midtown area north of Aviation Highway generally and outside of the downtown area would still be sourced from the radial 46kV system, would still be utilizing older substations which have a limited footprint for especially at Winnie and Olsen, some of the substations you've heard us talk about. There's only so much we can do within those substations, and we would not be able to add enough infrastructure to bring redundant transformers and switchgear, everything we need to support this reliability need we see here in Midtown.

So there's only so much we can do with the 46, and we'd max that out from a footprint perspective on the substation side.

It would allow us to upgrade the distribution to the limit of the transformers. So we're talking about over 200 megawatts of capacity at Vine. We might end up with 40 or 50 at Winnie and Olsen and then some additional capacity at our existing UA med station. And so we just don't have a chance to get up to what we're talking about with Vine Station.

The other --

Q. Mr. Lindsey, may I interrupt you for just a quick moment?

A. (Mr. Lindsey) Yeah.

Q. Okay. So for those of us that are lawyers that went to law school to avoid math, engineering, and circuits despite our current employment, I'd like to kind of bring this down to the customer level for just a couple of minutes.

So if we have, for instance, widespread electrical vehicle adoption and distributed generation in the Midtown area as is projected, will the existing 46kV system, if we do not have this line, this 138 line, be able to support it and for how long?

A. (Mr. Lindsey) Sorry, Ms. Hill. I get excited about this stuff, so thank you for redirecting me.

Q. And I do too. I understand it from my perspective.

A. (Mr. Lindsey) This is what happens.

So generally, no. So we have, again, a high level of confidence with our solution as proposed with the 138kV loop with the Vine Station with the distribution upgrades, a very high level of confidence that we can support all of the technology integration that we expect into the future.

So as we touched briefly on yesterday the 4kV, the low voltage distribution just doesn't like technology. The intermittency of solar is very hard for us to manage. Any sort of load growth beyond what we

have today, which is limited, is just very challenging for us to upgrade that system to support.

So without the distribution upgrades the answer is no.

Q. Okay. Thank you.

MS. HILL: And, Mr. Chairman, thank you for your permission for letting me ask a couple of questions.

MS. GRABEL: And I have one final question for Mr. Bakken, and then we'll turn this panel over for cross.

CHMN STAFFORD: Thank you, Ms. Grabel.

BY MS. GRABEL:

Q. Mr. Bakken, we heard a lot of public comment yesterday about why Fortis with its dividends can't just fund this project.

Will you talk a little bit more about the reinvestments into the system that Fortis does make and elaborate more a bit more on why it's not appropriate for shareholders to participate in this funding of undergrounding?

A. (Mr. Bakken) Sure. Yes. I agree there was a lot of commentary around that last night. Just so we've got some of the numbers straight, our earnings last year were approximately 250 million. We reinvested last year in our capital program approximately 550 million into the

system. And over the last 10 years, Fortis has reinvested in the Tucson system approximately 800 million. So they are very supportive of what we're trying to do in terms of our clean energy transition.

So in terms of implications, if we pay for this reliability project, that would, you know, potentially reduce or actually would reduce the return to our investors. And that potentially limits access to capital, would require us to, you know, possibly borrow more money putting pressure on our credit metrics, making it harder to attract that capital we need at a reasonable price.

Even if we could bear that credit pressure, really where do we draw the line? And I think we talked a little bit about this yesterday. It would be a benefit for really one group of customers. And at that point other customers obviously, I think, could demand that similar benefit.

And we talked again a little bit about this yesterday. If we were to underground all of the projects that we have in the Ten-Year Plan, we're looking about -- looking at approximately $2.5 billion in costs, and that would be a significant cost that would reduce the investment or the dividend to Fortis which allows us to then attract the capital we need to be able to move

forward with this clean energy transition.

And when I talk about that, just to be a little more clear, like I mentioned, there are a lot of competing interests for that investment. We're looking to move forward with more clean energy investments, looking to move forward with transmission upgrades so that we can move that power and integrate to more renewables, both the utility scale renewables that we're building as well as rooftop solar and battery energy storage.

We're also looking to modernize our distribution system. Mr. Lindsey just talked about that. All of these are a part of the capital that we need to invest that Fortis needs to invest to ensure that we're able to meet the net zero target that we have in 2050 for carbon reduction.

So we're looking at a lot of competing interests trying to ensure that we have the capital that we need to be able to move forward with this transition.

CHMN STAFFORD: Mr. Bakken, I have a quick question.

MR. BAKKEN: Yeah.

CHMN STAFFORD: What's the number you said about for the additional cost to underground everything in your Ten-Year Plan? You said that was 2.5 billion?

MR. BAKKEN: That's correct.

CHMN STAFFORD: Does that include the cost of -- is that additional? Is that the only additional cost of undergrounding or is that what -- or is that the total amount you'd have to spend with undergrounding but also including the actual costs of the additional projects?

MR. BAKKEN: That would be the total cost of undergrounding, so it does not --

CHMN STAFFORD: Just undergrounding?

MR. BAKKEN: Right.

CHMN STAFFORD: Not the infrastructure itself, just the additional -- the marginal cost of undergrounding is $2.5 billion for the next ten years of projects?

MR. BAKKEN: No. It would be the total cost --

CHMN STAFFORD: Okay. That's --

MR. BAKKEN: -- of the project. Yeah.

CHMN STAFFORD: Okay. Can you parse out what the marginal cost of the undergrounding is of that 2.5 billion you're talking about?

MR. BAKKEN: I don't have those numbers in front of me, but just based on, you know, kind of the multiplier that we've been talking about 10 to 20 times.

I think from that you could probably extrapolate -- or extrapolate or kind of reverse engineer what that cost is, but I don't have that in front of me. I think we can probably get that for you.

CHMN STAFFORD: So how does that math shake out?

MR. BAKKEN: As far as what?

CHMN STAFFORD: Your extrapolation from the 2.5 billion, was that if it's -- was it 10 percent, is that what would be the additional costs, or is it 50 percent of that?

MR. BAKKEN: Yeah. So the overhead cost is about 2 million per mile versus that underground cost, so what would that be, about 10 percent?

MS. GRABEL: Mr. Chairman, we can get that number for you --

CHMN STAFFORD: Yeah.

MS. GRABEL: -- and bring it back on a different panel.

CHMN STAFFORD: Yeah, that would be -- I mean, just to -- because like -- and that was one of the arguments you said about why you don't want to underground this project because once you do it for this then you have to do it for everything else.

MR. BAKKEN: Right.

CHMN STAFFORD: And you've got quite a significant amount of transmission coming in the next ten years.

And what I want to know is what is the anticipated cost of all those improvements for that Ten-Year Plan and what's the marginal cost --

MR. BAKKEN: Yeah.

CHMN STAFFORD: -- undergrounding it. So we have an apples to apples comparison.

MR. BAKKEN: I'm just not able to do that in my head.

CHMN STAFFORD: Right.

MR. BAKKEN: But certainly we could get you that number. And you're right. I mean, there would be a cost to build out overhead for that plan. The 2.5, though, would be taking that plan and applying undergrounding costs to everything that we plan to do over the next ten years.

CHMN STAFFORD: Now, more follow-up questions to that. The Ten-Year Plan is only transmission. That's 110kV and higher; right? Or is it do you include, you know, lower I guess is it called sub transmission if it's below 110 like the 69kV or something like that?

MR. BAKKEN: 69, 46 for us.

CHMN STAFFORD: 46, yeah.

Okay. And then so those are included in that Ten-Year Plan, or is that just 110 and above?

MR. BAKKEN: I believe it's just EHV or 110 and above.

CHMN STAFFORD: Okay, okay. So you'd have additional distribution system improvements you'll have to make and the sub transmission that are excluded from that $2.5 billion?

MR. BAKKEN: That's correct. That's the 3.5 billion or part of the 3.5 billion that we've been talking about over the next five years.

CHMN STAFFORD: But the distribution stuff is more commonly undergrounded than the highway voltage lines; correct?

MR. BAKKEN: That's correct.

CHMN STAFFORD: Okay. And I assume the marginal cost of undergrounding a distribution line is significantly less than a highway voltage line?

MR. BAKKEN: Yes. That's correct. And we do have programs to underground distribution. However, when we're talking about new distribution, in a lot of cases that's paid for by third parties by the developer.

CHMN STAFFORD: By the developer. Right. Right.

Okay. Or and, I guess, sometimes it's -- it can be residential or commercial, right, for those distribution lines to be undergrounded?

MR. BAKKEN: Yes. That's correct.

CHMN STAFFORD: Okay. I believe Member Little had a question, and then Member French had a question.

MEMBER LITTLE: My question has to do with the fact that technical considerations aside, if we're just looking at cost, it sounds to me like the cost of the alternatives that we've been talking about as possibilities is a great deal more than the cost of this project as proposed. And as I'm hearing 50 million to upgrade and reinforce the 46kV system, another 50 million to do an alternative 138kV line versus, you know, significantly less than that to do this project.

And those costs would be passed on to the customer. And I'm, therefore, wondering if there's been any discussion about comparing the alternative cost to the cost of undergrounding some of the proposed project and having that also pass through to the customer. Their alternative is very much more expensive.

MR. BAKKEN: So the question, Member Little, is whether or not we have considered undergrounding portions of the line and passing that

through to the customer?

MEMBER LITTLE: Correct. With the recognition that if this project is not approved, the cost to the customer is going to be a great deal more.

MR. BAKKEN: Again, as we've looked at that, the concern would be based on the Corporation Commission guidelines that we would make that investment and that the possibility is there, the risk is there that would be disallowed.

And, again, that would put us into the same situation, I believe, that I was just talking about with a payment from the shareholder basically for that undergrounding that they're not recovering on.

CHMN STAFFORD: Is that it, Member Little?

MEMBER LITTLE: Yes. Yes, thank you.

CHMN STAFFORD: Member French, you had a question.

MEMBER FRENCH: Yes. I'll address this to the whole panel, so whoever's best to answer it is -- with respect to the NERC requirements that you've talked about earlier -- and if I am understanding this incorrectly please just let me know.

You mentioned that the NERC requirements to tie the Kino Substation with a 138kV line to DeMoss Petrie, would that requirement be satisfied with the

alternative substations that you just talked about a moment ago?

And then also my second question is, is there a time line associated with this NERC requirement? Are there any compliance considerations like possible penalties with not satisfying that requirement within a certain time frame or anything like that?

MR. LINDSEY: Member French, so I'll address both of those.

So the upgrades I believe you were talking about on the 46kV side, those would be -- would not be subjected to any sort of NERC compliance requirements. I believe the standard starts at is it 100kV?

And so those sub transmission voltage upgrades are separate and fall more into our distribution planning standards that we have just internally to TEP.

But from a Kino to somewhere perspective, yes, we intend to loop that in for reliability. And once we loop that in, it would be come part of -- it would fall under NERC standards from a reliability perspective. So, yes.

And I think the second question falls into our concern of not connecting Kino directly to DeMoss Petrie. So, really, just -- just our continuation of stacking the benefits of this project is how I'd try to

best explain that.

Connecting ultimately Irvington to DeMoss Petrie alleviates any future upgrades that we see in the foreseeable future on the 138kV system by DeMoss.

So that's where the NERC piece fits into the consideration is without this connection to DeMoss Petrie we would be looking at other upgrades on the 138kV system around DeMoss Petrie to meet those reliability standards.

That's the -- that's stepping us back into the development of the solution. That was one of the big advantages we saw with the overall project. So this not only -- this project not only allowed us to loop Kino in, allowed us -- setting us up to modernize Midtown with the Vine Station connecting us to DeMoss Petrie to alleviate those future reliability concerns we have.

So from a timing perspective and in a fine perspective, we wouldn't put ourselves in that situation. We're -- another advantage of those Ten-Year Plans and our planning process, including all of this analysis, is we want to stay in front of that.

We probably -- I'm stepping out a little bit. We probably would be in a little bit of a pinch because we're planning this project to solve all of these issues for us. So if we leave here, the planning group

is going to be scrambling to get the studies done and to identify specifically when we would have these overloads outside of DeMoss Petrie and specifically when we'd need to resolve them so we would not be fined. We would not -- we'd make the upgrades necessary and prioritize that work so that would not happen.

MEMBER LITTLE: Mr. Chairman.

MEMBER FRENCH: Thank you.

CHMN STAFFORD: All right. Member Little, do you have a follow-up?

MEMBER LITTLE: Yes. Perhaps I just didn't understand the answer to the question. But you implied that to satisfy NERC you have to have the reliability of two sources of power into the 138kV substations. And Kino is built. It's on a radial line.

So how long does NERC give you guys to provide the second source of power to get that reliability?

And if you don't do it within that time frame, what are the penalties?

MR. LINDSEY: So, Member Little, my concern from a NERC reliability perspective is more associated with the upgrades at DeMoss Petrie that would be required if we do not make the connection as proposed.

We do have some other -- again, some other

138kV radial lines in our system that if it's a radial -- I'm trying to think how best to answer.

We can operate a radial 138kV line and still be -- meet NERC requirements. When you walk through all the stringent studies and operational criteria from a NERC perspective, it's less on a radial line.

The implication, though, is reduced reliability for those customers at Kino. And, in addition, the situation we're sitting in right now with Kino is we've delayed retirements of the 46kV stations around Kino, specifically Pueblo Gardens, 35th and 21st Street, simply to meet our own internal reliability standards for those distribution customers.

So all of those -- all of that infrastructure from a 46kV side around Kino is still in service. And we plan to maintain it enough to get us through this project.

So that's the bigger implication for the Kino folks is that they're not -- we don't have the reliability today with the loop, and we're spending additional capital to maintain that equipment in the area.

MEMBER LITTLE: Well, I certainly understand that the technical design implications of this

and the necessity for that.

I guess I misunderstood the statements that have been made here about meeting -- being in compliance with NERC. It's not a specific design criteria as much as it is just the reliability that NERC requires.

MR. LINDSEY: That's correct, Member Little.

From a radial perspective, that line rating and the substation rating are more than enough to meet NERC standards. Once you loop it into the system, that's when things get a little more complicated and you start checking through additional requirements.

It's still subjected to NERC requirements but not a NERC reliability concern today. More of a distribution, ACC outage perspective reliability concern.

If we step back through our outage examples yesterday, if we were to lose that radial line, we had an outage, we are going to have outages in the area, we're going to be reporting them to the ACC. That's just a situation that's avoidable once we get this done.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Member Hill, you had some questions?

MEMBER HILL: Yeah. I'm just working through a lot of things in my head. This is going to

feel unrelated.

But I was curious if you can tell me how many customers does TEP -- not UniSource TEP, not the whole shebang, but TEP have in its service area, how many of those are in the City of Tucson, and then of all of your demand relative proportionally how much is the City of Tucson?

Because I'm really trying to understand when we talk about ratepayers proportionally how many of those -- you may not have that off the top of your head, but I am kind of curious of the number of customers TEP has, those that are in the City, and then the relative, like, of all your production, like, or your generation how much of that is going to the City of Tucson?

I'm trying to understand who the ratepayers are.

MR. BRYNER: So let me just clarify.

Okay. Total customers, total customers in the City of Tucson, and then usage within the City of Tucson?

MEMBER HILL: Yeah, relative to --

MR. BRYNER: Not relative to just our project area, just the whole City of Tucson?

MEMBER HILL: Yeah. Yeah. I'm just trying to -- when we -- when we talk about the burden to

ratepayers, I'm trying to understand are we talking about -- or when we talk about creating benefits for certain ratepayers or certain neighborhoods or certain customers and not others, I'm trying to understand proportionally what Tucson is. Because I don't know enough about your service area and your customer base. So that would just be helpful.

CHMN STAFFORD: Member Hill, when you're talking about usage, are you asking in terms of energy or capacity?

Like megawatts or megawatt hours.

MEMBER HILL: I'm a planner. I still don't like math.

CHMN STAFFORD: Well, it's, I mean --

MEMBER HILL: I actually am thinking about, you know, of all your demands --

MR. BRYNER: 40 percent, 60 percent.

MEMBER HILL: A percentage of your demand; right?

MR. BRYNER: Yeah.

MEMBER HILL: A percentage of your customers. I'm just trying to understand when we talk about ratepayers and we talk about customers and we talk about equity, you know, how much of it is the City of Tucson? So --

MR. BAKKEN: I think we might able to parse -- this is Erik Bakken -- parse that out in terms of potentially peak demand.

MEMBER HILL: Yeah.

MR. BAKKEN: I think that might be helpful.

CHMN STAFFORD: Right. Yeah, yeah. So it's the capacity as --

MR. BAKKEN: Yeah.

MEMBER HILL: Yeah.

CHMN STAFFORD: -- opposed to kilowatt hours sold.

MEMBER HILL: Yeah.

CHMN STAFFORD: Okay. So, I mean, I think that probably would give a better picture, because that's -- that's what creates -- it's the peak demand that creates the most strain for the system, so that's probably the most relevant to --

MEMBER HILL: Yeah.

CHMN STAFFORD: -- everything we have to consider here.

MEMBER HILL: Thank you, Mr. Chair.

CHMN STAFFORD: Thank you.

MR. BRYNER: So, Member Hill, just to follow up, we'll gather that information --

MEMBER HILL: Okay.

MR. BRYNER: -- and share it with you as soon as we can get it.

MEMBER HILL: Okay. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Number one, Member Hill's question I think is very relevant. What percentage of your peak usage users overall and what percentage of the peak users are just Tucson as an incorporated separate city? I would like to know that answer also.

Second question, I'm looking on page 28 of your exhibit.

CHMN STAFFORD: Exhibit 8?

MEMBER GOLD: Exhibit 8, page 28. I've expanded it, and I've just got some questions here if we can put that up. Page 28.

MR. BRYNER: Can you give us a description of the slide?

MEMBER GOLD: Page 28 of 263 is what I have on my screen.

MS. GRABEL: Member Gold, what is depicted on the slide? We can probably find it that way.

MR. LUSK: I believe it's page 27. This is Roi Lusk with the City of Tucson.

MEMBER GOLD: Okay. That's the one. What

page is that?

CHMN STAFFORD: 27.

MEMBER GOLD: Oh, okay. I'm looking at this diagram. And I see you have a station at Irvington. You have a station at Tucson. And you have DMP in the north. Are those the correct stations that are already existing with the 138?

MR. BRYNER: Those are correct with the addition of the Kino Substation.

MEMBER GOLD: And if you add in -- is the Kino Substation 138 or is it 46?

MR. BRYNER: It's 138.

MEMBER GOLD: Okay. So you have one, two, three, four 138kV substations; is that correct?

MR. BRYNER: In -- on -- depicted on the screen. We do have many more than that.

MEMBER GOLD: Well, in this area?

MR. BRYNER: Correct.

MEMBER GOLD: So that's all that exists. And you do not have a loop connecting all of them?

MR. BRYNER: Can I clarify, Member Gold?

We do have another 138kV substation that's -- I don't know why we didn't show it on the screen, but it's located right here. It's our Santa Cruz Substation. And they're all looped with the exception of

the Kino Substation.

MEMBER GOLD: So the focus of this hearing is to include the Kino Substation into that loop?

MR. BRYNER: That is one of the objectives of this hearing.

MEMBER GOLD: Okay. But if you do that, then everything is looped and has a backup?

MR. BRYNER: Correct.

MEMBER GOLD: Assuming that negates the necessity of the 46kV substations, correct, or many of them?

MR. BRYNER: So, no, that would -- that would negate the necessity for a few of the 46kV substations in the vicinity of Kino Substation. It would not solve any of the problem with the 46kV substations serving the Midtown area that Vine Substation would solve.

MEMBER GOLD: Okay. So if we added in the Vine Substation and that would be part of that loop and you only have -- you have -- so I'm talking six 138kV substations?

MR. BRYNER: There's eight 138kV substations that would be affected by this project. I'm sorry. Eight 46kV substations.

MEMBER GOLD: So why aren't they on your

map is my first question?

MR. BRYNER: The 46kV substations are on the map. They're depicted with those --

MEMBER GOLD: No. I see that.

Why aren't the eight 138kV substations depicted?

MR. BRYNER: Did I -- that was me misspeaking. I apologize for that.

The 138kV substations with the exception of that Santa Cruz Substation are all depicted with the purple triangles, and the eight 46kV substations that would be retired as a result of this project are depicted with the blue triangles.

MEMBER GOLD: Okay. So the solid purple substations are 138kV, and the Vine is proposed?

MR. BRYNER: Correct.

MEMBER GOLD: How many is that in total of the 138kV stations?

MR. BRYNER: Of the total substations that TEP operates?

MEMBER GOLD: Yes.

MR. LINDSEY: So I think you're, Member Gold, referring to this diagram here. So with the addition of Vine, and if we were to represent Santa Cruz Substation, as Mr. Bryner mentioned, we'd be at a total

of six on this diagram.

MEMBER GOLD: Okay. I'm trying to find that. Could you just point them out to me?

MR. LINDSEY: You bet. So just note there's a big world outside of this map, and so that's where we're getting a little tripped up that we've got more.

But Irvington Station here.

MEMBER GOLD: Okay.

MR. LINDSEY: Existing Kino today here.

Then we have not depicted our Santa Cruz Station, but it is located right in this vicinity here.

Tucson Station is existing near the downtown area.

DeMoss Petrie, which is Grant and I-10, that -- that we'll see on the tour. That's the end point of what we're talking about.

And then Vine I left it for last. That's the proposed station that we've been talking about.

MEMBER GOLD: Okay. Now my question. If we connect Vine with Kino, then everything is now looped at the 138kV?

MR. LINDSEY: Member Gold, that's correct.

If we connect Kino to Vine and then Vine to DeMoss Petrie, we've completed the loop.

MEMBER GOLD: All right. Is any of that undergrounded in your current alternative plans?

Do you have anything going underground there?

MR. LINDSEY: Member Gold, we've not proposed to underground any of this project, no.

MEMBER GOLD: So all of this is aboveground 138kV, it will modernize the system; correct?

MR. LINDSEY: Yes.

MEMBER GOLD: What if the court says no?

MS. GRABEL: Member Gold, that's probably a legal question.

MEMBER GOLD: Well, then let me ask you, Ms. Grabel.

MS. GRABEL: Sure. So it's possible the court -- first of all, the Superior Court has said that the city ordinance currently requires undergrounding.

That -- it could be the subject of an appeal, which as I mentioned yesterday, it could play out for some time. It does not mention the University Area Plan, which also implicated undergrounding.

And so if this Committee selects a route that is required by city law or plans to be undergrounded, that is where we're going to ask this Committee to make a finding of fact that it's

unreasonably -- the ordinance or plan is unreasonably restrictive, and compliance with it is not feasible in light of the available technology.

I would note that the preferred alternative does not require to be undergrounded for most of the project, and we think we can get a special exception for parts of it. And we'll talk about that later on a later panel.

MEMBER GOLD: Well, the reason I'm asking the question, and I go back to a very old fight between Thomas Edison and what's that --

CHMN STAFFORD: Tesla?

MEMBER GOLD: No, not Tesla. The other company who Tesla joined. Motorola.

UNIDENTIFIED SPEAKER: Westinghouse?

MEMBER GOLD: Westinghouse. Thank you.

So the reason Westinghouse could not continue and let the system go to Thomas Edison is they said Edison is in cahoots with Chase Manhattan Bank, we don't have enough money to fight with them, and they will keep us in court forever.

We have a deadline of doing this project, if I understand it correctly, of 2027. If we don't meet that deadline, a lot of people are going to have brownouts and electrical problems, which is what the

situation looks like, and it will be a lot of fix-it work for Tucson Electric Power, which doesn't really modernize the system, just throws good money after bad.

My question is if they proceed with this -- so let's assume the Line Siting Committee says, Yep, we're going with your Route A, we give it to you and now they take it to court, in your estimation as a lawyer, will this get out of court before 2027?

MS. GRABEL: Mr. Chairman, Member Gold, I think that's a good question. We do think that we could potentially work with the City with our preferred route in order to get a special exception to the Gateway Corridor ordinance.

But these are conversations -- we just got the court order yesterday, and so I think there's a lot of internal conversations that need to happen before we figure out how we would move going forward.

MEMBER GOLD: But we knew this was going to court before this?

MS. GRABEL: Correct. Which is why we've asked the Committee to make the finding that we've asked you to make.

MEMBER GOLD: So a possible solution would be we approve the route, some of the areas you're going to have to underground anyway just to get it out of

court, and then the thing gets completed by 2027.

Is that a possibility?

MS. GRABEL: Well, we really don't believe that we'd have to underground any of the preferred route except for a very small sliver that we think that we can probably get a special exception for, but that's something we're going to talk about on the alternative routes panel.

MEMBER GOLD: And the special exception means you would underground it, or would you be allowed not to underground it?

MS. GRABEL: Correct. We'd apply to the City of Tucson's zoning administrator for an exception to the ordinance's requirement to underground so that we can continue to build it aboveground.

And those are only where the line would cross perpendicularly a street that's covered by the Gateway Corridor.

There's a map that points this out beautifully in the next panel, I promise you.

CHMN STAFFORD: Yeah. I was going to say I think a bunch of this is going to be addressed by the next panel --

MEMBER GOLD: Gotcha. I'll wait.

CHMN STAFFORD: -- in detail.

MEMBER GOLD: Thank you.

MS. GRABEL: Okay. Thank you.

CHMN STAFFORD: But while we're on the subject, Ms. Grabel, I had a quick question.

So the subject of the superior court lawsuit is only the Gateway Corridor? So it doesn't address whether or not the area or neighborhood plans also required undergrounding; is that correct?

MS. GRABEL: Yes, Mr. Chairman, that is correct.

CHMN STAFFORD: Okay. All right. So I guess, Mr. Lusk, you'll be entering that superior court decision as an exhibit soon? I look forward to reading it.

MR. LUSK: That's correct, Mr. Chair. Actually, it should be in your e-mail right now.

CHMN STAFFORD: Excellent. Thank you.

All right. Any other questions from members?

Member Hill, did you have a follow-up question?

MEMBER HILL: No. I'm good.

CHMN STAFFORD: No. Okay. Anyone else?

All right. Ms. Grabel, back to you.

MS. GRABEL: I think we're ready to turn

this panel over to cross-examination.

CHMN STAFFORD: All right. We've been going for about 90 minutes, so I think this is, like, a perfect time for a break.

Before we take a recess, I think we'll take probably about a 20-minute recess. And then let's plan to do lunch from 12:30 to 1:30. We have members who have prior commitments. They'll need to step away. I think if we take the lunch from 12:30 to 1:30 that will minimize the time that those members will have to miss. So let's plan on doing that.

With that, we stand in recess.

(Recess from 10:29 a.m. to 11:04 a.m.)

CHMN STAFFORD: Let's go back on the record.

I believe, Ms. Grabel, you had finished your direct for this panel and we're open to cross-examination.

MS. GRABEL: Yes, that's true. Thank you, Mr. Chairman.

CHMN STAFFORD: All right. Let's go to Banner Health, Ms. De Blasi.

MS. DE BLASI: Yes, Chairman, Banner does not have any cross for this panel.

CHMN STAFFORD: Okay. City of Tucson,

Mr. Lusk.

MR. LUSK: Thank you, Chairman. Just a few questions.

CROSS-EXAMINATION

BY MR. LUSK:

Q. So Mr. Bakken, I'm going to start with you. And I know you've had many conversations with the City of Tucson over the last few years about this particular route. Is that correct?

A. (Mr. Bakken) That is correct.

Q. And those conversations started at the prior -- after the prior line siting proceeding was suspended; is that right? Or was that -- is that the right time line?

A. (Mr. Bakken) Correct. Approximately a few days or maybe a week after the withdrawal of the previous application.

Q. And was that in '21 or '22? I -- I don't recall, to be honest.

A. (Mr. Bakken) I believe it was early '22.

Q. Early '22. Okay. And the substance of those conversations, I personally didn't participate, but if you could summarize for the Committee related to funding mechanisms, you said?

A. (Mr. Bakken) Yes. We discussed a number of

different funding mechanisms for the potential of undergrounding a portion of the line, in particular along Campbell.

Q. And that was -- at that time that was the preferred route; correct?

A. (Mr. Bakken) Yes.

Q. Okay. There -- but you did apply to -- as you did here in this proceeding -- you applied for several other routes; correct?

A. (Mr. Bakken) That is correct.

Q. Okay. And not all of them being within what we've discussed here as the Gateway Corridor Zone?

A. (Mr. Bakken) That's correct.

Q. Okay. You had a conversation earlier, I think it was yesterday, about those funding mechanisms. And you listed I think four or five. And please correct me if I'm wrong. And one being -- the first being customer rates. Also shareholder funding. Franchise fee. I'm going to say slash public utility tax because I think those were related.

Is that correct, in your conversations?

A. (Mr. Bakken) They were looked at as two separate potential --

Q. Okay.

A. (Mr. Bakken) -- funding mechanisms.

Q. Okay. And then undergrounding districts and the last being third-party contributions. Do I have that right?

A. (Mr. Bakken) That's correct.

Q. Okay. I want to take those sort of in turn. We'll start with the customer rates and you did discuss sort of your reasoning behind not pursuing seeking rate -- seeking return through customer rates for undergrounding.

And you referred to the policy statement that the ACC put out. I believe that was in Decision 7914, I think Ms. Grabel provided that in her opening. Is that what you referred to earlier?

A. (Mr. Bakken) Yes, that is correct. The policy guidelines issued by the Arizona Corporation Commission.

Q. Okay. And just to be clear the policy guidelines do not prohibit you from undergrounding a line; is that correct?

A. (Mr. Bakken) There are certain circumstances, if I remember correctly, where undergrounding would be potentially considered.

Q. I guess I -- just to be clear, they don't prohibit undergrounding, though; correct?

A. (Mr. Bakken) Do we have a copy of the -- which exhibit?

Q. I apologize. I think it was in the actual opening statement of Ms. Grabel.

CHMN STAFFORD: The Committee can take administrative official notice of Decision 79140.

MR. LUSK: Thank you, Mr. Chair.

CHMN STAFFORD: I have a copy in front of me, so I can --

MR. LUSK: Sure. If you want to proceed, Mr. Chair.

CHMN STAFFORD: Do you want me to read what the undergrounding policy from the Commission was?

MR. LUSK: Sure, Mr. Chair, please.

CHMN STAFFORD: It states, "The Commission does not have jurisdiction over the undergrounding of electrical transmission lines. ARS 40-360 subsection 10. Installing electrical transmission lines underground is much more expensive than building them aboveground. Underground transmission lines also can be more costly and challenging to maintain and repair.

"As a general matter, utilities under the Commission's jurisdiction should avoid incurring these higher costs unless underground installation of a transmission line is necessary for reliability or safety purposes, or to satisfy other prudent operational needs.

"Installing a transmission line underground

for other reasons, such as stakeholders' preferences, would add unnecessarily to costs recovered through rates.

"Third parties, including cities, customers and neighborhood groups, seeking to fund the underground construction of a transmission line may do so, among other ways, by forming an improvement district for underground utilities as provided in ARS Section 48-620, et sequitur."

MR. LUSK: Thank you, Mr. Chair.

BY MR. LUSK:

Q. And I assume that's your recollection as well, Mr. Bakken?

A. (Mr. Bakken) That's correct.

Q. Thank you.

A. (Mr. Bakken) So it does require -- or not require -- but to direct us to avoid undergrounding except for safety and reliability purposes.

Q. Right. So, again, not prohibitive, but if there's an additional cost related to undergrounding you're to avoid it; correct?

A. (Mr. Bakken) Correct.

Q. Okay. The discussion that you were having with this -- and just to -- for the Committee's benefit, I believe that discussion with the city manager and the city attorney as well as yourself and others from TEP; is

that correct?

A. (Mr. Bakken) Those that participated in the conversation?

Q. Yes. Yeah. Sorry.

A. (Mr. Bakken) Was primarily myself, our general counsel, as well as the city attorney and city manager.

Q. Okay. Thank you. And during those conversations the discussion, again, was on the preferred route at that time, which was Campbell, and how to fund undergrounding on that route; correct?

A. (Mr. Bakken) That was part of the conversation. As I testified or mentioned yesterday, the other piece of it was talking about discussing areas where undergrounding would be infeasible, and that resulted in the special exceptions process.

Q. Okay. And that special exception process you discussed earlier came into being in the middle of the year last year; correct?

A. (Mr. Bakken) That is correct.

Q. Okay. Prior to that special exception process had you attempted to at any time get an exception to that requirement for an overhead line in either Gateway Corridor or any other area in the city?

A. (Mr. Bakken) I don't believe, one, there wasn't a mechanism that I'm aware of for that type of exception.

And so I believe the answer is no, we haven't applied for -- an exception.

Q. Sure. And if you don't recall that's fine, too. I wanted to make sure I asked the question. We have other witnesses that can testify to it as well.

A. (Mr. Bakken) Right.

Q. Going back to the conversations you were having with the City, the other funding mechanisms that you discussed were franchise -- increase in the franchise fee; correct?

A. (Mr. Bakken) Yes.

Q. And how did the -- can you briefly for the Committee discuss how that would work in terms of being able to fund those undergrounding activities? Was it to underground the entire line or portions or some combination, or --

A. (Mr. Bakken) It was designed as an increase to the franchise fee. Those funds could be utilized, or a portion of those funds could be utilized for any portion of the line that was required to go underground, to fund those costs or reimburse us for those costs.

And then also had some flexibility for other undergrounding of infrastructure, and I believe flexibility that the Committee would have to identify additional projects, whether it's distribution or

transmission for undergrounding or other improvements.

Q. So there was some flexibility to the -- were you able to determine -- were you looking for a certain amount from that fee in order to make the project viable in terms of funding?

A. (Mr. Bakken) Certainly we wanted to ensure that whatever the incremental amounts were under the franchise increase would be able to reimburse or pay the costs of the undergrounding within a reasonable time. I believe that was ten years.

But the franchise is a 25-year agreement, so understood that there would be additional funding likely that could be used for other projects going forward.

Q. So if I understand correctly, the incremental costs would be spread out over a ten-year period being paid back at least in part by that increase in the franchise fee?

A. (Mr. Bakken) I believe that's correct in terms of the payback period.

Q. Do you have any sense of sort of what the amounts you were talking about at the time were? Obviously being different than they might be today.

A. (Mr. Bakken) It was that -- I believe 40 to 50 million, 50 to $60 million increase that we were seeing, the differential between the cost of the line overhead

versus the cost of the line underground.

Q. And again that would be over -- and that would be paid back, theoretically that would have been paid back over the ten-year period with the increase of the franchise fee?

A. (Mr. Bakken) That's correct.

Q. Okay. Thank you. I have to ask because, you know, I'm asking an attorney, I'm an attorney, it's math. I apologize.

But is that -- is that -- does that mean it would be four to six million dollars per year that would be paid back? Is that the way it works?

A. (Mr. Bakken) Yes. There's, you know, obviously a number of factors that go into that depreciation, so if I remember correctly, it was a decreasing amount over time.

Q. Okay.

A. (Mr. Bakken) But we'd look for the full recovery of the cost of undergrounding that line.

Q. Okay. And so then in the actual practicality of how that works, would TEP -- would TEP have advanced the funds for the project and then get paid back? Or how does this --

A. (Mr. Bakken) Right, so the franchise fee would have gone into effect so there would have been a period

of time as we're starting to move forward with construction where that fund would have been building. That would have been applied to the costs of undergrounding.

But as we move forward with construction, our costs would have exceeded what was in the fund, so it would have been paid back over time.

Q. So you would -- so just to clarify for my question, you would have advanced those funds initially to complete the work?

A. (Mr. Bakken) Initially there would have been surplus funds in the franchise fee bank, so to speak. But then as we started construction, our construction costs would have exceeded what the franchise fee is gathering. So at that point, we would have been advancing the funds.

Q. Advancing the funds with the idea that you would get paid back?

A. (Mr. Bakken) That's correct.

Q. I actually have a larger question that ties into that. Which is this is a multi-million-dollar project. Is it -- are there funds available from TEP to fund -- you mentioned yesterday something like $800 million that were -- that had been invested in the last five years. Is that a correct statement? By Fortis in the Tucson

area?

A. (Mr. Bakken) Last ten years.

Q. Ten years. Sorry.

That is a large amount of funds which actually might exceed what the return is to the investors. How does that funding occur? Is there financing involved or how does that work?

A. (Mr. Bakken) How does equity contribution from Fortis work?

Q. Well, where does the $800 million come from? Is it just Fortis providing cash for infrastructure improvements or do they finance those amounts or how does that work?

A. (Mr. Bakken) It's an equity contribution from Fortis for investments that we're making over time. Like I said, allocating those investments to generation, transmission, and distribution infrastructure.

Q. And what -- I think you said the amount that was invested last year but I don't -- I want to make sure I got it correct. I wrote down 550 million, but that doesn't seem right. Could you --

A. (Mr. Bakken) Yeah, so it was actually, I said approximately 550. Probably closer to 570 in terms of what TEP contributed or invested in capital expenditures which, again, includes generation, transmission

distribution.

Q. And that's last year?

A. (Mr. Bakken) That's correct.

Q. And that -- that would come from the revenue that we discussed yesterday; right?

A. (Mr. Bakken) Yes.

Q. And then so for a project of this size, does that just come out of revenue, or is there a portion of this -- just speaking as proposed -- the line that you're proposing today, that would come out of revenue or is there any portion of that that's financed as well?

A. (Mr. Bakken) It would be revenue that we'd reinvest in capital projects.

Q. And that's sort of how your budgeting works --

A. (Mr. Bakken) Correct.

Q. -- right? You plan on investing additional funds?

A. (Mr. Bakken) Yep.

Q. In the case of -- going back to the initial question I had, the customer rates piece of that. How does -- obviously if for whatever reason you were to build an underground line and fund it with customer rates, you wouldn't receive those funds until that rate was increased; is that -- am I right in that?

A. (Mr. Bakken) Till the inclusion of those

costs --

Q. Right.

A. (Mr. Bakken) -- were approved by the Corporation Commission in a what we call a rate case.

Q. Right. How do you -- if that were the case, if you were going to do that, how would that work in terms of actually doing the project? Would you have to finance and then seek reimbursement out of that increase?

A. (Mr. Bakken) Again, it's kind of the business model structure, right. We have the revenue. We reinvest and then we seek recovery of that investment with a return on that investment.

So up until that period of time where it's used and useful and included in rates, there is what we call regulatory lag, where we're not necessarily receiving a return on that investment.

Q. Right. And so you're, again, if I'm using the correct word, you're advancing funds --

A. (Mr. Bakken) Yes.

Q. -- with the idea that you're going to be paid back?

A. (Mr. Bakken) Right.

Q. And in terms of how that -- obviously you're not going to seek a hundred-million-dollar increase in rates in one rate -- or one year.

How do the rates get reset for a period of time? Is it over a period of ten years, 20 years? What's the expectation in that return for an advance?

A. (Mr. Bakken) Right. The expectation would be that we recover the costs of that investment over a period of time, over whatever the depreciable life of that asset is.

Q. Would we know what that would be offhand in this case, I guess?

A. (Mr. Bakken) Transmission infrastructure, I believe it's over a 30, 40 period of time -- it's 64 depreciable life is what's usually used for transmission, overhead transmission infrastructure.

Q. Well, I guess for this case, just for this, the hypothetical that we're talking about, if it were underground would it be similar or --

A. (Mr. Bakken) Don't know.

Q. Okay.

A. (Mr. Bakken) We don't have an estimate on that.

Q. Okay. Suffice it to say it's superior to the relatively long period of time?

A. (Mr. Bakken) Yes.

Q. Okay. So if I understand correctly, recovery in rates of a large investment such as undergrounding some portion of a transmission line would be handled over time

through rates spread across the -- would it be the entire rate base or is it just I guess the -- we had that question, yeah.

A. (Mr. Bakken) That's correct.

Q. So it would be the entire rate base of TEP over some period of time?

A. (Mr. Bakken) That's correct.

Q. Like 20 years. And then we talked about so the shareholder funding is the case where you advance the funds and that then just sort of comes off the top of revenue or how does that work?

A. (Mr. Bakken) It would come off the top of net income.

Q. Okay. And that's that 250 million last year that you talked about?

A. (Mr. Bakken) Correct.

Q. Okay. Now, would you -- would -- hypothetically would it be that you would invest that entire amount all at once or would you finance -- in terms of your business model, would it make sense for TEP to finance that amount over time?

A. (Mr. Bakken) Typically as we look at capital investments --

Q. Yes?

A. (Mr. Bakken) -- that -- that funding is done as

the capital investment is made. Which if the length of the project is over a period of time we're investing as that project requires capital to -- to move forward and to complete the project.

Q. So you wouldn't necessarily finance any portion of it?

A. (Mr. Bakken) I can't say absolutely we wouldn't, but typically we -- we don't.

Q. Well, I guess let's -- for the Committee's sake let's be very sort of specific.

In this case in the event that you decided in the hypothetical that you decided to underground a portion or some portion of this line in a specific area, given the amounts that you've discussed in your application that's a significant amount of investment; correct?

A. (Mr. Bakken) Correct.

Q. So would the sense be if it were totally financed by Fortis or TEP or the combination, would it -- would the sense be that you would finance some portion of that given the size of the investment?

A. (Mr. Bakken) I think we would have to look at it, and there is I think a possibility that we would finance a portion of the cost.

Q. Okay. Thank you. So we've discussed customer

rates, shareholder funding, franchise.

Undergrounding districts I think you discussed a little bit. But nobody has sort of -- that's sort of a -- somebody coming to you and saying we want to do that, not you reaching out to anybody?

A. (Mr. Bakken) That's correct, somebody would have to initiate that. We offered to assist in that process and nobody's taken advantage of that that I'm aware of.

Q. And in essence that's a fund on property owners who wish to participate in the district --

A. (Mr. Bakken) That's correct.

Q. -- tax?

A. (Mr. Bakken) Yep.

Q. And then you also mentioned that third party contributions weren't forthcoming for this particular line?

A. (Mr. Bakken) That's correct.

Q. Now, those -- all those funding sources, those were all predicated on the idea that you were either going to underground portions of or the entirety of the line and the preferred route in 2021, which was the Campbell route; correct? Those conversations that you had with --

A. (Mr. Bakken) Just so I understand the question.

Q. Sure.

A. (Mr. Bakken) The funding options were looked at for the undergrounding costs of a portion of the preferred route.

Q. And the preferred route we're discussing, again, is the preferred route from 2021 which was the Campbell route?

A. (Mr. Bakken) That's correct.

Q. Okay.

CHMN STAFFORD: Quick question. So is the preferred route in this application the same as the preferred route in the prior application or are they different?

MR. BAKKEN: They are different.

CHMN STAFFORD: Okay. Is the prior preferred route reflected as any of these proposed as A -- the preferred route here is B-4. Is the prior preferred route is it like C5 or what -- is it represented or is it something totally different?

MR. BRYNER: So, Mr. Chairman, this is Clark Bryner just jumping in. The preferred route before was kind of a combination of some of the existing routes, but different.

If you look at our Route 3 it's got elements of Route 3 in it. It's also got elements of

route -- of Route 1 in it. It's different. And I'd be happy to point out that when we'll get some maps up here on the next panel, I'd be happy to point out and show you what that preferred route looked like to see, just so you know.

CHMN STAFFORD: Okay. I just need a frame of reference here, because I realize there's a prior application. I didn't -- I didn't know how that route in the prior application compared to this one. So it's different. That's what I wanted to make clear.

MR. BRYNER: Correct.

CHMN STAFFORD: And the Campbell route I guess, Mr. Lusk, it went on down Campbell Street?

MR. LUSK: Sure. Actually if I may I think it's a good idea to have Mr. Bryner clear it up right now if I could.

CHMN STAFFORD: By all means.

BY MR. LUSK:

Q. Mr. Bryner, I'm going direct you to your slides, and, in fact, it's Slide 43, I believe. Is that familiar to you?

A. (Mr. Bryner) Yes.

Q. So if I'm recalling correctly, the routes that travel near and/or through the preferred route prior are Routes 1 and 2. Is that right?

A. (Mr. Bryner) Almost.

Q. Almost. Please clarify.

A. (Mr. Bryner) If I could trace the route, I -- I will.

Q. Sure.

A. (Mr. Bryner) Okay. So just a second here. So beginning at the Kino Substation, so at 36th Street and, well, and Kino Parkway, the preferred route traveled down Kino Parkway just prior to the crossing of Aviation Highway, which is turning sort of northwesterly, southeasterly direction right here.

It jumped off of Kino Parkway to get across the railroad tracks and the highway, and then came back over to Kino Parkway and then traveled down Campbell Avenue, up to Ring Road into the substation, and then more or less traveled our Route B of this application, which is our preferred route on this one.

So between DeMoss, Petrie and Vine, it was more or less the same route but from Vine to Kino it differed from anything we have in this application.

Q. Okay. Thank you, Mr. Bryner.

And just to clarify, Mr. Bryner, during the preparation of the application, you familiarized yourself, you and your team, with various land uses and plans and that sort of thing; is that correct?

A. (Mr. Bryner) Certainly. That was one of the -- a part of our due diligence.

Q. Sure. And your application makes reference to the Gateway Corridor Zone; is that right?

A. (Mr. Bryner) That's correct.

Q. And can you describe for the Committee what the Gateway -- the relevant area of the Gateway Corridor Zone is for these routes?

A. (Mr. Bryner) Sure. So the Gateway Corridor Zones within our project area include, so Kino Parkway, which then turns into Campbell Avenue and the Gateway continues on Campbell Avenue north.

Broadway Boulevard. And then we don't have it labeled here, but Oracle Road.

Q. Okay. So the -- so for this particular proceeding the Gateway Corridor impacts routes 1, 2, 6, and D? Is that correct?

A. (Mr. Bryner) Well, where we parallel with a Gateway Corridor would be those routes. We do have perpendicular crossings of Gateway Corridors for all of the routes.

Q. Thank you. In terms of where you parallel, thank you.

And I'm going to direct the conversation back to you, Mr. Bakken.

The conversations that you had with the city manager and the city attorney, those related to possibly undergrounding within that Gateway Corridor Zone; correct?

A. (Mr. Bakken) Within the Campbell Gateway Corridor Zone.

Q. Right. Right. Not the perpendicular crossings that we're not discussing right now. That was the substance of the conversation during that time?

A. (Mr. Bakken) Yes.

Q. No other discussions of undergrounding anywhere else in the system other than for that route or for that preferred route?

A. (Mr. Bakken) I mean we did talk about the potential, as I mentioned before, to use any excess funds generated by the franchise increase for undergrounding in other areas.

Q. Preferentially, not necessarily required?

A. (Mr. Bakken) I think it could have been either.

Q. Okay. The other routes that you were -- did you discuss the other routes during those conversations?

A. (Mr. Bakken) Yes, we did.

Q. And what was the nature of those discussions?

A. (Mr. Bakken) That there were concerns from neighborhoods related to those other routes.

Q. Okay. The -- other than the perpendicular crossings, no other implications for the Gateway Corridor Zone other than the routes we just discussed?

A. (Mr. Bakken) I believe that's correct. But I'd have to overlay a map to verify that.

Q. Yeah, it's hard for me to look at it, too.

So let me just make sure I'm under -- get the questions that I'm looking at.

This is just a real quick one. You mentioned wildfire mitigation yesterday?

A. (Mr. Bakken) Yes.

Q. What does that entail for TEP? Does it impact this project, actually?

A. (Mr. Bakken) It does not, but it is something that we're focused on at this point in looking to ensure that we're doing all the wildfire mitigation we can within our system, which includes our distribution system.

So likely we would do some analysis to ensure that any wildfire mitigation that we need to do isn't required in this area or isn't necessary, really, in this area.

Q. Are there just really -- is it -- are there techniques involved or --

A. (Mr. Bakken) Really just looking at an

additional expense; right, as we talk about that allocation of resources or of capital. Wildfire certainly has some demands that we're going to need to consider as we look at allocating capital to various operations.

Q. But not necessarily for this project itself?

A. (Mr. Bakken) That's correct.

Q. Okay. Thank you.

You mentioned yesterday about investing $3.5 billion over the next five years?

A. (Mr. Bakken) That's correct.

Q. And what is that? Is that just completely -- are those all reliability improvements? Or are they upgrades, combination of both?

A. (Mr. Bakken) All of the above.

Q. Okay. And that's all financed through revenue, or do we know -- what --

A. (Mr. Bakken) A combination of revenue, potentially equity injection and financing, or debt.

Q. Okay. And this might be a personal question, but the financial situation of TEP is relatively strong in terms of financing, debt, that sort of thing, the credit rating?

A. (Mr. Bakken) Yes, our credit rating is strong. I don't have that off the top of my head, but it's a

strong credit rating at this point.

Q. Suffice it say you can go out and borrow funds if you need to?

A. (Mr. Bakken) Yes, that is correct.

Q. Can I have just a moment, Mr. Chair?

You also mentioned yesterday about being competitive in seeking new customers. I assume that's within the city of Tucson. How does TEP accomplish that? Are there various programs or --

A. (Mr. Bakken) Well, I mentioned that in the context of affordability as we look to or as customers come to us looking to potentially locate in the Tucson region or even within the city of Tucson, certainly energy cost is something that they consider.

Q. I see. So they're looking -- so for an example, a data center may inquire as to what the rates are on TEP here in Tucson, comparing to another city. Is that an example?

A. (Mr. Bakken) Manufacturing, data center, other commercial customers.

Q. Okay. And going back to those conversations, those conversations started after, and we're all aware there was some litigation between the City of Tucson and TEP related to that Gateway Corridor. Is that right? Those negotiations started after that?

A. (Mr. Bakken) The conversations with the city manager and city attorney?

Q. Yes.

A. (Mr. Bakken) Started prior to the challenge to the Gateway Corridor or to the litigation.

Q. So when did those conversations -- I believe you said they started in 2022?

A. (Mr. Bakken) Yeah, I believe it would have been early 2022.

Q. And, again, if you don't know these answers we can get them from somebody else, but I believe the litigation started prior to that, taking it to the board of adjustment, those sorts of thing? But we can --

A. (Mr. Bakken) Yeah, I apologize.

Q. Sure.

A. (Mr. Bakken) I don't recall it that way. I'm fairly certain I may have the timing off on when we initiated conversations with the City.

Q. Sure.

A. (Mr. Bakken) But I believe we initiated those conversations, and then subsequent to that looked for clarification on the application of the Gateway Corridor.

Q. Okay. Suffice it to say you did -- there were several proceedings in which both TEP and the City were involved. They were sort of -- I don't want to say, I

guess the word suspended during those conversations voluntarily by both sides?

A. (Mr. Bakken) Sorry. I don't understand.

Q. The -- both the litigation and the prior Line Siting Committee were voluntarily suspended for a period of time while we had those negotiations; that a fair assessment?

A. (Mr. Bakken) I don't believe the litigation was suspended. There were a number of steps that we needed to take prior to the court taking up the clarification question.

And during some of the conversations we were having with the City, there was a time when we asked for a step in that process to be continued as we continued the conversations.

Q. And if I remember correctly that was the board of adjustment proceeding that was continued?

A. (Mr. Bakken) I believe that's correct.

Q. And you asked for that to be continued for a period of time?

A. (Mr. Bakken) Yes.

Q. Would it be accurate to say approximately a year or two?

A. (Mr. Bakken) I remember it more like six to eight months, but --

Q. And we can verify.
A. (Mr. Bakken) Yeah.
Q. I appreciate it. But it was for some period of time, that proceeding was continued to allow for these negotiations?
A. (Mr. Bakken) That's correct. So allow for us to continue conversations, see whether or not there was a solution.
Q. And, in fact, they did continue. You met, you said weekly?
A. (Mr. Bakken) Yes.
Q. You mentioned a number earlier today, I believe of $2.5 million. And I think we have a clarification for that number. But something not too much far from -- too far from that?
A. (Mr. Bakken) That is correct.
Q. For undergrounding all the projects in your Ten-Year Plan?
A. (Mr. Bakken) That is correct.
Q. You're not asking for permission to do that today; correct?
A. (Mr. Bakken) No.
Q. You're asking for an overhead line in a specific configuration?
A. (Mr. Bakken) That is correct.

Q. And there is some discussion as we've all been a party to that the preferred -- at least some portion of the routes that you're asking the Committee to approve would be in a Gateway Corridor Zone which under our current state of the law would be required to be underground?

A. (Mr. Bakken) Or would require us to seek a special exception.

Q. Correct. And, again, that special exception process is available to you?

A. (Mr. Bakken) Yes.

Q. And did you participate in the crafting of that special exception process or --

A. (Mr. Bakken) I participated in moving that through the city council process. But it was primarily city attorney and our general counsel that crafted the language for the special exception process.

Q. And nothing about that language that's within the special exception process you dis -- TEP would disagree with, it's appropriate you agreed to push it forward as you did?

A. (Mr. Bakken) Yes. We agreed to support the language and the process.

Q. And it was codified as you were --

A. (Mr. Bakken) That is correct.

Q. The special exception process allows you to -- and please correct me if I'm mischaracterizing it -- the special exception process allows you to seek relief from undergrounding within a Gateway Corridor Zone for specific reasons and specific factors. Is that a fair assessment of it?

A. (Mr. Bakken) Yes.

Q. Does it does not necessarily only apply to perpendicular crossings?

A. (Mr. Bakken) No, that is one of the circumstances for which you can seek a special exception.

Q. And there are other circumstances where you could seek special exception for a longer portion. Am I correct?

A. (Mr. Bakken) Yes. Correct.

Q. Okay. There is, as far as you're aware, there are no requirements under either state or federal law as it relates to these routes that prohibit you from undergrounding them; correct?

A. (Mr. Bakken) That's correct.

Q. I think I'm going to finish with you, Mr. Bakken. Thank you. I appreciate it.

A. (Mr. Bakken) Okay.

Q. Mr. Bryner, I want to go back to the slides here, to slide I believe it's 22. Slide 22.

There you go. So these are the needs -- need and benefits of the various routes; correct?

A. (Mr. Bryner) Correct.

Q. The meeting, the need and the benefits that you have listed here, those apply to every route in the -- of the alternatives, including the preferred route; correct?

A. (Mr. Bryner) Correct. All of our routes, if we have one selected between DeMoss, Petrie and Vine, and one between Vine and Kino would result in meeting the project need and benefits.

Q. So as it just relates to the need and benefit every route would meet -- would -- would be fine as far as TEP is concerned?

A. (Mr. Bryner) That's correct.

MR. LUSK: I don't think I have anything further for this panel. Thank you, Chair.

CHMN STAFFORD: Thank you. Underground Arizona, Mr. Dempsey, you've been waiting very patiently.

MR. DEMPSEY: Yeah. Can you hear me? Okay.

CHMN STAFFORD: Just make sure you're close to the mic so we can all hear you.

MR. DEMPSEY: Sorry, I'm not nearly as good as Roy is at this, and I don't have as much experience, so bear with me.

CROSS-EXAMINATION

BY MR. DEMPSEY:

Q. I guess I could, it doesn't matter which one of you answers this, I guess I can start with Erik.

Is the City of Tucson asking you to underground all the projects in your Ten-Year Plan?

A. (Mr. Bakken) They are not.

Q. Okay. According to the City, it has had the power to require undergrounding for at least 40 years and it has not abused this power. Why do you assume it will start doing so now?

A. (Mr. Bakken) One, I'm not sure that I would agree that the City has the ability or the power to underground, and that we're still kind of talking about that, that dispute, or challenging that.

And nor would I assume that they would require us to underground going forward.

Simply making the point that if there was a determination that we needed to underground all of our lines going forward that there would be a significant cost to that -- that outcome.

Q. Okay. And I'm sorry, I'm going to jump around here. I have notes from the whole thing. I tried to organize them as best as I can, but it's -- there's a lot of topics here.

So are you familiar with the ACC ever denying recovery for the extra cost of undergrounding, whether it was a transmission or distribution line?

A. (Mr. Bakken) No, I am not aware of any time where they disallowed the recovery of transmission, overhead transmission or distribution costs.

Q. Underground. I'm asking about underground.

A. (Mr. Bakken) Or underground.

Q. Okay. What about where required by law? I mean, it's got to be the same answer, I guess I can skip that.

A. (Mr. Bakken) Well, I am aware of a situation or an instance where the ACC did disallow capital infrastructure for a emission control in an APS rate case related to what's -- to retrofit environmental equipment that was added to one of their plants and that was disallowed.

CHMN STAFFORD: Just to interject, that was overturned by the court of appeals.

MR. BAKKEN: That is correct. But I think the question was whether or not there had ever been anything that's disallowed required by law, and that's the only situation where I'm aware of something like that.

CHMN STAFFORD: It was attempted to be

disallowed, and it ended up being I think they'd recover the cost through an additional surcharge to make up for that. The court of appeals found that was not justified to deny that cost.

MR. BAKKEN: Yep, that's correct.

BY MR. DEMPSEY:

Q. So in TEP's view, is following the law not a just and reasonable expense?

A. (Mr. Bakken) That is a determination for the ACC. And as we bring our investments to the Commission to make that determination, we do everything we can to try to ensure that they are prudent, reasonable investments, and that they will be allowed -- we will be allowed to recover on those investments.

Q. Okay. I'm changing topics here again.

So are you familiar with the risks to your business as disclosed in your SEC filings?

A. (Mr. Bakken) Yes, I am.

Q. So are you aware that your usage by customer has declined by 1 percent each of the last five years?

A. (Mr. Bakken) I'd have to verify that. But we are seeing increased usage, in fact, growth at about 1 to potentially even 2 percent going forward.

Q. And that's from population growth or from per customer usage?

A. (Mr. Bakken) Demand growth.
Q. Okay. So are there financial risks for your business with having a bad relationship with the community?
A. (Mr. Bakken) Based on the work that we do in the community involvement that we have with the community, the philanthropic efforts that we participate in with the community, we strive to ensure that we have as best as possible a good relationship with the community and our customers.
Q. Okay. So are there financial risks to -- for your business to having a bad relationship with the community?
A. (Mr. Bakken) Certainly there are reputational risks. I don't know if I could quantify financially if there was a risk to having a bad relationship. I don't feel like we have one. I feel like we have a good relationship with the community. So it would be tough for me to quantify that.
Q. I'm not claiming that you have a bad. I just didn't --
A. (Mr. Bakken) Okay.
Q. Hypothetical.
So I'm going to switch to this testimony yesterday where you guys were talking about this

138-kilovolt line to Kino's radial line.

So you have this radial 138-kilovolt line to Kino on these new steel poles that are much more protected from storms compared to your existing 46 kilovolt infrastructure.

Has that 138-kilovolt line ever gone down?

A. (Mr. Bakken) I'll defer to Mr. Bryner or Lindsey on the operational aspects.

A. (Mr. Bryner) So just to clarify, we're talking about the Irvington to Kino 138kV line?

Q. Correct.

A. (Mr. Bryner) It has not gone down to my knowledge.

Q. So the outage you're referring to yesterday had nothing to do with the new 138-kilovolt line, it was because of the old system?

A. (Mr. Bryner) I'm going to let Mr. Lindsey clarify.

A. (Mr. Lindsey) So a couple things here. We would have to look in to see if we've had any outages on that line. So by go down, in my mind means deenergized.

Q. Sorry. Yes.

A. (Mr. Lindsey) So we could confirm if there's been any outages on that radial line.

And then yesterday's presentation walking

through was a hypothetical of an outage on the Kino to Irvington line.

Q. I apologize. I thought you were talking about an actual situation. Okay.

So is your 138-kilovolt system on steel poles more reliable than the old 46-kilovolt radial system?

A. (Mr. Bryner) Can you -- can you restate? Sorry. One last time.

Q. Is your 138-kilovolt system on steel poles more reliable than the old 46-kilovolt radial system?

A. (Mr. Bryner) I would definitely agree, yes.

Q. So can a 138-volt volt looped system ever have an outage?

A. (Mr. Lindsey) Yes.

Q. So this is a little bit different.

But so you guys are using -- TEP uses 138 kilovolt to connect substations to together; is that right? Or it's where you're moving towards?

A. (Mr. Lindsey) It's one of the systems, yes, that -- from a transmission perspective.

Q. So if you used a 69-kilovolt system like APS or SRP in Phoenix would a CEC be required?

A. (Mr. Lindsey) No, it would not be.

Q. So, again, changing gears here, have you secured the permit to build Vine?

A. (Mr. Bryner) No. Well, I guess when you say permit, it's not a permit we're seeking to build it. It's because of the zoning where the Vine substation is located we have to get a special exception. So it would be similar in nature to the special exceptions for the Gateway Corridor.

Q. But the answer is no?

A. (Mr. Bryner) So we do not have that today, correct.

Q. Why do you not have that?

A. (Mr. Bryner) So we did make application for that. I don't believe we had that on our time line. I want to say that we made application in the '21 time line area. That was heard by the City and the decision was made that it was premature to make a decision on that because a transmission line route had not yet been approved.

Q. Was that the only reason given?

A. (Mr. Bryner) There's a number of reasons listed in that decision. I don't recall them off the top of my head.

Q. Okay. So I'm assuming you guys are familiar with the distribution system?

A. (Mr. Bryner) Yes.

Q. Okay. So do underground distribution lines cost

more to maintain than aboveground distribution lines?

A. (Mr. Bryner) So they're different. So overhead and underground, they both have different requirements. From a maintenance perspective both are fairly maintenance free until something goes wrong.

MS. GRABEL: And Mr. Chairman, I'm actually going to ask Mr. Dempsey to defer that question. We have experts on undergrounding and overhead transmission on panel number 4.

CHMN STAFFORD: Yes, I think it more appropriate to re-ask that question to the fourth panel because they'll have the expert who's -- on the costs of everything.

MS. GRABEL: Costs and operation.

CHMN STAFFORD: Yes.

BY MR. DEMPSEY:

Q. How much of your current distribution system is underground?

A. (Mr. Bryner) It's around -- it's more than 50 percent.

Q. So I'll probably ask this again, then I would like to ask this now, too.

Are you aware of a time where the construction cost of underground distribution or transmission lines was ever less than aboveground lines?

A. (Mr. Bryner) Let me make sure I understand. You're asking if underground costs were ever less than overhead costs? I'm not aware of that.

Q. Thank you. So something your presentation failed to mention is the historic preservation and neighborhood preservation zones.

Are 85 to 115 feet, or whatever the range is, 138-kilovolt high voltage transmission lines compatible with the zoning?

A. (Mr. Bryner) So I actually haven't shared that in my testimony yet. We'll share that on the next panel. So I'll provide some information on that then.

Q. So I'm going to pivot real quickly to Prop 412. Did Prop 412 contain a tax increase?

A. (Mr. Bakken) No. Again, it was an increase in the franchise fee.

Q. But it required ratepayers to pay more?

A. (Mr. Bakken) It required --

Q. It was an increase in the franchise fee?

A. (Mr. Bakken) Yes, that's correct, for the residents of the city of Tucson.

Q. Right?

A. (Mr. Bakken) Yep.

Q. So was TEP asking for a substantial rate increase at the same time as it was advocating for

Prop 412?

A. (Mr. Bakken) We were -- we had made application for a rate increase, yes.

Q. Thank you. So you talked a little bit about SRP yesterday, Erik. Does SRP's spending have to be prudent?

A. (Mr. Bakken) Like any utility, they're held to a reasonable prudency standard.

Q. Okay. So is it possible that SRP in the 1960s or '80s whenever it started this program that you spoke about determined that the cost of extended litigation was higher than the cost of creating this fund?

MS. GRABEL: Mr. Chairman, I'm going to object to this question. SRP is, A, not regulated by the ACC, and Mr. Bakken is not familiar with what SRP did or why.

CHMN STAFFORD: Yes, Mr. Dempsey, that would just be total speculation on his part. She is correct. SRP is not regulated by the Corporation Commission.

MR. DEMPSEY: They are by Line Siting Committee; right?

CHMN STAFFORD: Well, they -- if they want to build a transmission line or a power plant, they have to get a certificate.

MR. DEMPSEY: Right.

CHMN STAFFORD: But their rates, their rates are totally not set by the Commission, they're set by their board.

So the calculus of how the rates are recovered for SRP is completely different than it is --

MR. DEMPSEY: Right.

CHMN STAFFORD: -- for TEP and APS who are both public service corporations regulated by the Corporation Commission.

MR. DEMPSEY: Right.

CHMN STAFFORD: Whereas SRP is not.

MR. DEMPSEY: So I understand that. He was, he brought up SRP and these funding mechanisms yesterday. That's why I'm asking about them.

CHMN STAFFORD: Right. I think, and Mr. Bakken, correct me if I'm wrong, but I think he brought that up in the context of an example of how a utility but not a public service corporation was able to fund that. Because they're not answerable to the Commission for the rates they charge to fund those types of things.

MR. DEMPSEY: Right. Yeah. I under -- yeah. So the question, though. Sorry, I lost my spot here.

CHMN STAFFORD: If you could ask the question a different way as opposed to not asking what

SRP does. You could ask about what TEP does.

MR. DEMPSEY: Well, so where I'm going with this is SRP's spending presumably, as Erik just said, has to be prudent.

CHMN STAFFORD: Well, again, I'm going to stop you there. Because prudent -- prudency is a standard that's used by the Commission in setting, determining whether an asset that the company has is prudent, that the expense was prudently incurred and the assets used and useful. And that's what it goes into the rate base.

SRP doesn't do its calculation the same way. It's not regulated by the Commission.

MR. DEMPSEY: Right.

CHMN STAFFORD: So they're -- they're not judged by the Commission whether an investment was prudent or not.

MR. DEMPSEY: Yeah.

CHMN STAFFORD: They don't even have shareholders, either. So they don't have -- they have a publicly elected board and executive officers, and -- but they do not -- their regulation is very different from what TEP and APS face.

MR. DEMPSEY: Right. And I understand that. My question isn't about whether the ACC regulates

SRP. It's about, as Erik answered, there's generally you have to be prudent if you're a utility.

So I was just building off of his answer. He could have refused to answer that question, I guess.

CHMN STAFFORD: Well, I just --I guess it's the word prudent, because it has a meaning in context of utility of public service corporations being regulated.

And SRP is not a public service corporation. I mean, they're not going to go, you know, build a power line to nowhere or build a plant that's not connected to the grid.

MR. DEMPSEY: Right.

CHMN STAFFORD: Because that's a waste of money, but they don't -- again, prudence, that's the standard of review for the Commission. So I think the implication, it's apples and oranges between how SRP and TEP operate.

MR. DEMPSEY: Okay.

CHMN STAFFORD: Ms. Grabel, did you -- one second, Ms. Grabel, did you --

MR. DEMPSEY: I won't belabor.

CHMN STAFFORD: -- have any legal point to make on that?

MS. GRABEL: No, I concur with what you're saying, Chairman Stafford, and I intended to redirect

Mr. Bakken on that after cross.

CHMN STAFFORD: All right. So I think, Mr. Dempsey, I think what's throwing everybody off is the use of the prudent.

MR. DEMPSEY: Okay. I'll move on.

CHMN STAFFORD: If we can all agree that SRP wants to invest wisely and it invests in ways to minimize cost to its customers. It's not -- it's not going to go out and spend a bunch of money for something that doesn't benefit its system and customers.

MR. DEMPSEY: That's all I wanted to establish. So you did a great job, thank you.

CHMN STAFFORD: I think we can all agree with that statement; right, Mr. Bakken?

MR. BAKKEN: Yes, that's correct. I agree with that.

CHMN STAFFORD: Just the word prudent has connotations that don't apply to SRP.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would like to state for the record that with my -- in my experience in working with utilities that have boards and are not regulated, they also use the word prudent.

CHMN STAFFORD: Thank you, Member Little.

Mr. Dempsey, please proceed.

BY MR. DEMPSEY:

Q. So I'll shift away from SRP.

Again, I'm going to jump around here a little bit and I apologize for that.

So who is the largest land owner in the study area?

A. (Mr. Bryner) I would say this is speculation because I don't know for sure, but I would presume the Arizona Board of Regents.

Q. Okay. Do they pay property taxes?

A. (Mr. Bryner) I don't know the answer to that.

Q. Okay. So did the U of A state -- you may not be familiar with the letter that they've submitted recently -- but did the U of A state that it was opposed to a special property tax district?

CHMN STAFFORD: Mr. Dempsey, is that an exhibit somewhere that's forthcoming?

MR. DEMPSEY: Yeah, they added it I believe yesterday.

MS. GRABEL: So Mr. Dempsey, if you want to cross-examine my witness on a certain document perhaps you could put it in the record --

MR. DEMPSEY: Oh, sorry.

MS. GRABEL: -- and ask him.

CHMN STAFFORD: Yeah, if you could ask A/V team to pull up the exhibit by number and then --

MR. DEMPSEY: We can move on. It's not -- I don't know. It would take me too long to figure out which one.

CHMN STAFFORD: Well, perhaps Ms. Grabel knows. Was it one of your exhibits or is it somebody else's?

MS. GRABEL: It was one out of our exhibits. It's a late-filed exhibit. I believe it's number 21.

CHMN STAFFORD: So it's TEP-21.

Do you have it in front of you, Mr. Bakken, or Mr. Bryner?

MS. GRABEL: We can provide a copy to you.

CHMN STAFFORD: Yeah, I don't know if you'll be able to read it very well off the screen there.

MR. BRYNER: Grace, can you go to that second page?

MR. BAKKEN: Okay. We've reviewed the letter.

BY MR. DEMPSEY:

Q. Do you want me to ask the question again?

A. (Mr. Bryner) Yes, please.

Q. Did the U of A state that it was opposed to a

special property tax district?

A. (Mr. Bryner) So, in this letter, they state, "As a large land owner that may likely be included in any undergrounding district formed to fund the differential in cost, the university cannot support funding the underground option at this time."

Q. Thank you. So switching gears again. I promise I'm almost done.

So do the aesthetics of a community affect its attractiveness to new businesses and residents in your opinion?

A. (Mr. Bryner) Whose opinion do you want?

Q. Let's go to Erik.

A. (Mr. Bakken) It is a factor in attracting new business and customers. Hard to understand exactly what weight various customers would put on that, that particular aspect.

Q. Fair enough. This is slightly different.

Is the University of Arizona important to just the residents of the City of Tucson?

A. (Mr. Bakken) I think if you asked the students from outside the state, they'd probably say it's important to them as well. So I think the answer is it's important to a number of different folks including those within Tucson.

Q. Would you say that it's important to the residents of, say, South Tucson?

A. (Mr. Bakken) Yes. I think it's an important regional kind of asset.

Q. Thank you. So, again, I'm completely changing gears, so I'm on my last little set of questions.

So Clark, we've talked about this before. Do these lines ever make noise?

A. (Mr. Bryner) So if you look at our application, TEP Exhibit 1 under Exhibit I, we have some information on that. And so, yes, transmission lines have what's called a corona discharge that they can make. It can sound like a humming, different things like that that happen under different conditions.

Q. And another question about sort of the physical properties of these lines. Do they swing?

A. (Mr. Bryner) So, again, the wires are suspended in the air by transmission structures, and they have a sag to them and that's free hanging, so in the wind conditions they can we call it blow out, they can theoretically sway from side to side.

Q. Do you know how many swing you guys allow for?

A. (Mr. Bryner) So we plan for as much as that line sags, so let's just say it sags 10 feet, then we plan for it to swing out 10 feet.

Q. Okay. Thank you. And these lines are uninsulated, bare metal; correct?

A. (Mr. Bryner) We're talking about the conductors on the line?

Q. Yeah, the wires.

A. (Mr. Bryner) That's correct.

Q. Okay. Thank you. If one of these high-voltage lines came down in a neighborhood could it cause a fire?

A. (Mr. Bryner) So I would say that our transmission system is built with a lot of safety factors. One of those is a very sophisticated relaying system, so as soon as it detects a fault, within a fraction of a second it's deenergized.

Q. So they could not cause a fire?

A. (Mr. Bryner) I don't know --

A. (Mr. Bakken) I mean, as we've looked at it I would say it's highly unlikely that a transmission line could cause any type of fire.

Based on what Clark was talking about, just the way the system is operated and configured, but certainly we are looking every day to find ways to even lessen that very low probability.

MR. DEMPSEY: That's all I have. Thank you.

CHMN STAFFORD: Thank you. Ms. Grabel, I

think you have some redirect you mentioned?

MS. GRABEL: I do have some redirect Mr. Chairman, but I would actually like the opportunity to kind of talk to my witnesses before I do, so can we break for lunch now?

CHMN STAFFORD: All right. With that, we can but we won't be back until 1:30.

MS. GRABEL: That's fine.

CHMN STAFFORD: Oh, and then before we break, Ms. Grabel --

MS. GRABEL: Yes.

CHMN STAFFORD: I understand you were going to offer Staff's letter as TEP-25.

MS. GRABEL: Yes. TEP-25, we have just filed it in the docket, and Mr. Ancharski can pass out copies if we need to.

In addition, while we -- since we have 15 minutes, Mr. Bakken I believe that over the break you found information to respond to the chairman's question about the delta between the 2.5 billion dollars of undergrounding, what is the actual undergrounding margin.

MR. BAKKEN: That is correct, Ms. Grabel. And Mr. Chairman, of the 2.5 billion that would be the cost of undergrounding, approximately 250 to 300 million of that would be the transmission cost. So the

incremental would be approximately 2.2 to 2.5 billion to underground approximately 127 miles of transmission line.

CHMN STAFFORD: Okay. So that was -- so the cost of -- I mean, restate this to make sure I understand it correctly.

So of the 2.5 billion to underground everything in your Ten-Year Plan, which is only high voltage, all but what, how many million --

MR. BAKKEN: So it would cost 250 million to 300 million to build that overhead, the incremental cost to underground would be 2.2 to 2.25 billion.

CHMN STAFFORD: So vast majority of that expense, then.

MR. BAKKEN: That's correct.

CHMN STAFFORD: Okay. So it's billions, it's billions more, with a B, to underground.

MR. BAKKEN: B as in boy. That's correct.

CHMN STAFFORD: So you said 600 million to build it above and then --

MR. BAKKEN: 250 to 300 million.

CHMN STAFFORD: 250 to 300 to build it aboveground and then 2.5 billion to underground everything in the Ten-Year Plan.

MR. BAKKEN: Yep.

CHMN STAFFORD: That's quite the striking

difference.

MEMBER GOLD: Mr. Chairman --

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Was that 600 million or 300 million to go aboveground?

MR. BAKKEN: 300 million is the top end of the range.

MEMBER GOLD: And what was the cost per mile to underground?

MR. BAKKEN: Approximately 10 million.

MR. BRYNER: So it varies and, again, you're going to hear about this on our undergrounding panel. But yes, it varies by what's happening on the route, anywhere from 10 million up to I think we've got 20-plus million.

MEMBER GOLD: But average, 10 million, 15 million, just pick an average number.

MR. BRYNER: We'll go within that 15 million range.

MEMBER GOLD: Okay.

MR. BAKKEN: And the cost to build overhead, just so you have this information, is 2 million per mile.

MEMBER RICHINS: Mr. Chairman.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: In this specific application, are these numbers -- or this is -- is this a generalized number? Just I want to make sure that that's understood.

MR. BAKKEN: Generalized number looking forward at the cost potentially to underground 127 miles of transmission, that's currently within our Ten-Year Plan.

MS. GRABEL: And Member Richins, you'll hear the information specific to this project on panel number 4.

MR. BAKKEN: Correct.

MS. GRABEL: And Member Hill, just to respond to your request, we are looking at that information, it's not easy to retrieve, but we are getting the data regarding Tucson.

CHMN STAFFORD: And the data regarding the --

MS. GRABEL: Peak load, oh, yes.

CHMN STAFFORD: -- SF6 as well.

MS. GRABEL: Yes.

CHMN STAFFORD: Excellent. All right. Anything further from members?

MEMBER GOLD: Yes, Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: 2027 is your projected completion date for this project. What if it's not? Let's assume you hit 2027 and you're either tied up in court or the project is delayed to the point where 2027 comes. We have a heat wave. How many people can die? Without electricity?

MR. BRYNER: I think Mr. Lindsey is kind of going to talk to what our plan would be.

MR. LINDSEY: Grace, if he could go to Slide 25.

Member Gold, so what we talked about briefly yesterday was we've spent or planned to spend just over 10 million to get us to '27.

So that's the spend that we know is either behind or in front of us no matter what. So if this project was to slide out past '27, we plan to invest another $10 million into the system. And to be specific about that, just to give some context, we'd be looking at installing new substation equipment at Olson station, Olson sub, it's an old 46 substation that we want to retire.

So instead of retiring that station with this project, we'd have to spend more money there to keep us going in the interim.

MEMBER GOLD: But all these things require

time and a plan to do them. Let's assume that you hit 2027, you're still trying to get this project done, but it isn't done. And you haven't thrown the money into the other substations in anticipation of this project being completed.

Let's assume we go where we are right now, just routine maintenance. What happens in 2027 if we have 115 degrees for an extended period of time? Are you going to have brownouts? Are you going to lose power in these areas? What's going to happen, worst-case scenario?

MR. LINDSEY: So Member Gold, worst-case scenario is we wouldn't spend the 10 million at all at Olson and we would anticipate substation equipment failure at that -- at Olson.

And what that would mean for us is we would then have to -- we do have mitigation plans; right, for other areas in our system. So we have a fleet of mobile and skid-mounted transformers that we use for emergencies. We don't have a big fleet but we do have equipment that we can mobilize.

It takes I'll say generally 24 hours to move one of those, install it safely and energize it.

So assume your worst-case scenario, folks around Olson station are out for 24 hours. We would do

everything we can to minimize that inconvenience. I mean, we have programs in place to deliver ice, you know, we try to help our customers as much as possible. But that's a major issue for us in this case.

So customers -- anticipate customers to be out without that spend by '27 and without this project.

Now, back to the skid and mobile concept. Our plan for that 10 million is to put skids in at Olson so this is not permanent equipment. So we can -- those are -- those are like quick projects.

But it's far from ideal. And what we don't want to have is a system full of skids. Because then at some point in time we'll have a warehouse full of skids, and a bunch of sunk costs that was unnecessary if we got in front of that with a project like this.

MEMBER GOLD: You're talking technical fixes. That's not what I'm asking.

MR. LINDSEY: Okay.

MEMBER GOLD: What I'm saying is in a worst-case scenario. We had a situation in Texas where their system froze and they had no electricity and people were living in subfreezing weather and we had tragedies.

We have just the opposite situation. If a catastrophe were to occur by this date, your proposed completion date, and it was not completed, it did not

work, you didn't have redundancy, you didn't have connections, what would be a worst-case scenario? Would people die? Would houses get so hot that people would cook in them?

MR. LINDSEY: Member Gold, I think that's been the condition in Arizona in the past. I don't know, I can't speak specifically to any of that for TEP. But I know residents in Arizona have passed due to the heat. And so that's why we're so concerned about getting this project done.

MEMBER GOLD: I understand your urgency. What I'm asking is what happens if it doesn't get done? What's the worst-case scenario? You have two weeks of 115 degrees and you have either brownouts or insufficient electricity.

MR. LINDSEY: So Member Gold, worst-case scenario is all of our mobiles and fleets are used somewhere else, Olson station fails, customers are out.

MEMBER GOLD: For how long?

MR. LINDSEY: A long period of time. This is really hard to quantify especially on the record, but if what you're looking for is an extreme scenario, that would be the extreme scenario.

We don't have equipment to make repairs. We would then be likely putting pieces together from

other stations or scavenging parts and pieces that could take days to do. We want to speculate out to a week for an outage like this, I'm looking -- it seems worst-case.

MEMBER GOLD: So worst case could be a week, it could be two weeks, the bottom line is we need this power by 2027. Is there any doubt in anyone's mind about that?

MR. LINDSEY: Member Gold, no, absolutely.

MR. BAKKEN: No doubt in my mind -- this is Erik Bakken -- that we need this line for reliability and to your point safety reasons.

MEMBER GOLD: Thank you. That was my question. Thank you.

CHMN STAFFORD: Ms. Grabel, you wanted to wait till after the lunch break to do your redirect?

MS. GRABEL: I would. Thank you.

CHMN STAFFORD: All right. Well, with that let's -- we would go take our lunch break. We stand in recess until 1:30.

(Recess from 12:23 p.m. to 1:37 p.m.)

CHMN STAFFORD: All right. Let's go back on the record. Ms. Grabel, I believe you're about to do your redirect.

MS. GRABEL: Yes. Thank you, Mr. Chairman. Just a few brief questions.

REDIRECT EXAMINATION

BY MS. GRABEL:

Q. Mr. Bakken, when the City's attorney Mr. Lusk was giving his examination he asked again about the various funding mechanisms and again asked about shareholder contributions.

And just to emphasis Fortis and TEP are two different companies; correct?

A. (Mr. Bakken) That is correct.

Q. They have different credit ratings?

A. (Mr. Bakken) Different credit ratings, different board of directors, yes.

Q. And Fortis infusing equity into TEP, their affiliated entities, is an investment; is that correct?

A. (Mr. Bakken) Yes. That's correct.

Any infusion of equity is done so on an investment basis. They have a number of different opportunities, a number of different utilities where they're able to invest their money. So to the extent that they invest in TEP and our activities, they are looking for a return on that investment.

Q. And so an affiliate's investment into a utility is what's known as an equity infusion at the Arizona Corporation Commission; is that correct?

A. (Mr. Bakken) That is correct.

Q. And the amount of equity that can be unfused into a utility is bounded by a capital structure that's approved by the Arizona Corporation Commission; correct?

A. (Mr. Bakken) That is correct.

Q. And so Fortis could not infuse more equity than is bounded by that capital structure without ACC approval; is that correct?

A. (Mr. Bakken) Yes. The ACC regulates those types of cash infusions.

Q. Thank you. Mr. Lusk also asked you about TEP's ability to borrow as a means of funding this project and other utility investments.

Is TEP's borrowing also authorized by the Arizona Corporation Commission?

A. (Mr. Bakken) That's correct, yes.

Q. And isn't it true that the ACC often imposes conditions on TEP's borrowing abilities?

A. (Mr. Bakken) Yes.

Q. Okay. And, of course, we've already established that the assets that TEP is allowed to recover through rates is also approved by the ACC; correct?

A. (Mr. Bakken) That is correct.

Q. Okay. And Mr. Dempsey asked you whether the aesthetics of the community were important to businesses from an economic development perspective.

Do you recall that question?

A. (Mr. Bakken) I do.

Q. Do you believe that the MRP Project improves the aesthetics of the community?

A. (Mr. Bakken) Yes.

As we look at the number of lines that we'll be undergrounding versus those that will be built overhead, certainly an improvement in aesthetics.

I think it's also important to note that as in particular commercial and industrial customers look to relocate or build their operations in the Tucson area, certainly electric rates as well as reliability are very important factors in that decision.

Q. Thank you.

And cheaper electric rates and reliability would result from this project compared to an alternative that Mr. Lindsey discussed; correct?

A. (Mr. Bakken) That is correct.

MS. GRABEL: Thank you. I have no further questions.

CHMN STAFFORD: All right. Thank you.

MS. GRABEL: Oh, actually, I'm sorry. I have one follow-up on the SF6, if you would like that.

CHMN STAFFORD: Please do.

BY MS. GRABEL:

Q. All right. Mr. Bakken, were you able to ascertain any data related to the system-wide release of SF6?

A. (Mr. Bakken) Yes, we were.

The total release for 2023 was approximately 32 pounds.

MS. GRABEL: Thank you.

That's all we have, Mr. Chairman.

CHMN STAFFORD: Oh, yes. And what about the breakdown of the City of Tucson customers as opposed to TEP customers outside the City?

MR. BAKKEN: We're still gathering that data.

CHMN STAFFORD: Okay.

MR. BAKKEN: We'll have that for you as soon as we can, most likely tomorrow.

CHMN STAFFORD: Perfect.

All right. With that you would you like to call your next panel.

MS. GRABEL: Absolutely.

And so I think we excuse Mr. Bakken and Mr. Lindsey from the panel. And we will bring up Mr. Robinson.

And we are now going to walk through the various alternative routes beginning with our preferred

route and we will need to swear Mr. Robinson in.

CHMN STAFFORD: All right. And we'll be starting at what slide in the presentation?

MS. GRABEL: Slide 42.

MR. BRYNER: Grace, could you reset us. I think we're out of sync at 42.

CHMN STAFFORD: Mr. Robinson, would you prefer an oath or affirmation?

MR. ROBINSON: I would prefer an oath, sir.

CHMN STAFFORD: Do you swear the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth so help you God?

MR. ROBINSON: I do.

CHMN STAFFORD: Thank you.

Please proceed, Ms. Grabel.

CLARK BRYNER AND LARRY ROBINSON,

called as witnesses as a panel on behalf of Applicant, having been affirmed or sworn and/or previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

BY MS. GRABEL:

Q. Mr. Robinson, please state your name and

business address for the record.

A. (Mr. Robinson) My name is Larry Robinson. I work at 88 East Broadway Avenue Boulevard.

Q. By whom are you employed and in what capacity?

A. (Mr. Robinson) I'm employed by Tucson Electric Power, and I am the Director of Engineering at that organization.

Q. What is your role in this matter?

A. (Mr. Robinson) The engineering route evaluations and estimates for overhead and partial estimates for underground were developed by people who report to me.

Q. If you would please turn to Exhibit TEP-6, which is the testimony summary of Larry Robinson.

A. (Mr. Robinson) Yes.

Q. Was TEP-6 prepared by you or under your direction and control?

A. (Mr. Robinson) Yes. It was.

Q. Are the contents of TEP-6 true and correct to the best of your knowledge?

A. (Mr. Robinson) Yes. They are.

Q. Do you have any changes you would like to make to Exhibit TEP-6?

A. (Mr. Robinson) Yes. I have one change. My title and responsibilities have changed slightly. I am

the Director of Engineering right now. Previous to -- previous to that assignment I was the Director of Land Resources Engineering and Project Management.

Q. Thank you. And if you quickly turn back to Slide 5, which is up on the right side -- the right screen.

Will you please give an overview of your education and professional experience.

A. (Mr. Robinson) Sure. I have -- I'm a graduate civil engineer from the University of Utah with a bachelor's degree in civil engineering.

I currently have the roles and responsibilities of the engineering departments, our nine cost centers that report to me in the engineering department.

And I have 40 years of experience. My first 20 years of experience in the utility industry were based around construction where I started in the industry as a groundman, worked my way up through lineman, project superintendent and then project estimator, ultimately leaving the contracting side of the business as a business unit director.

20 years ago I went to work for Tucson Electric Power as the supervisor in their transmission maintenance department and have continued to grow in my responsibilities through managing departments and was

promoted to a director nine years ago and have had various responsibilities as a director at Tucson Electric Power for the last nine years.

My current responsibilities are the director over engineer departments.

Q. All right. Thank you very much, Mr. Robinson.

So returning to Slide 42, in order to give the Committee a more comprehensive overview of each route and in the interest of being efficient, we're going to present each route independently and walk through the various considerations associated with it, including the 40-360.06 factors.

So sometimes we reserve an examination of those factors for a separate panel with an environmental witness, but in this case because it's such a heavily urbanized area we're going to identify each route and all of the factors with that route so that you can hopefully more easily compare one to another as we walk through.

And rather than look at the virtual tour all at once at the end, we'll show the discreet route that we've just examined after the demonstration of that route.

So, Mr. Bryner, please begin with the presentation of the alternative routes.

A. (Mr. Bryner) Thank you.

And before I jump into that, just to add one

thing to what Mr. Bakken shared about the SF6, we wanted to get this number before, but we didn't quite get it in time.

Just to put it in context, so he shared that we had about 32 pounds of releases last year. And we have 77,169 pounds in our system.

CHMN STAFFORD: What's that come out to as a fraction?

MEMBER HILL: 32 over 77,169.

CHMN STAFFORD: Yeah, yeah, yeah. But, like, percentage-wise, I guess.

MR. BRYNER: Just a second.

CHMN STAFFORD: Whatever the actual number is I think it's, to be clear, it's a de minimus amount.

MS. GRABEL: Only an engineer can do math on the fly.

MR. ROBINSON: Yeah. It's .004 percent.

CHMN STAFFORD: Okay.

MR. BRYNER: I'll add one zero also to that, 000 -- oh, sorry, he gave it in a percent.

MR. ROBINSON: Yeah, it's a percent.

MR. BRYNER: He's the engineer, not me.

MR. ROBINSON: Yeah. It's .04 percent.

CHMN STAFFORD: That is clearly a de minimus amount compared to total volume.

MR. ROBINSON: That's correct.

CHMN STAFFORD: It puts it in perspective then. Thank you.

MR. BRYNER: Okay. Sorry to go off topic there for a second.

So, yes, as we've talked already, we had ten routes -- ten alternative route segments that we put forward. Four of those -- sorry, let me -- so four of those were between -- or are between our DeMoss Petrie Substation and our Vine Substation, and six are between the Vine Substation and the Kino Substation.

So each of those routes has a route name. The numeric routes are between -- sorry, the alpha -- I'm not -- the routes that begin with a letter are between DeMoss Petrie and Vine, and the routes that begin with a number are between Vine and Kino.

So we're going to start by looking at our preferred route, which is -- and we'll start on the DeMoss Petrie to Vine section of that route, and so that's our Route B.

Before I do that, the map you're seeing on Slide 46 on the left-hand side, we'll use a map that shares the same layout for the description of all these. So I want to kind of orient you to what you're seeing on the map since you're going to be seeing this quite

frequently.

So you're used to seeing our lovely triangle symbols that we use for our substations. So those continue on these maps. The route colors that you're seeing, so in this case for Route B it uses an orange line, that's the same route -- the same symbol that we use on your placemats and anything else.

You'll see dotted lines like this in black dotted lines, those represent areas on the route where we would take existing overhead lower voltage distribution lines and move those underground if this route were selected.

Also on the map you'll see these pink lines. Those designate neighborhood boundaries. So there are a lot of neighborhoods within our study area. And you can see in the pink writing those are the names of those neighborhoods. So you might correlate those with some of the folks who provided public comment last night and where they're at in relationship to these lines.

And then as far as land uses go, you'll see the kind of tannish color on the map. That denotes areas that are primarily residential.

And the gray areas on the map are areas that -- well, basically anything other than residential,

so your commercial, industrial, institutional land uses. Again, are those primarily --

CHMN STAFFORD: So the darker areas are residential?

MR. BRYNER: Correct.

CHMN STAFFORD: Okay.

MR. BRYNER: The last thing I just want to orient you to on here are -- is up in the legend there. We have sensitive noise receptors. So we list adult care and nursing homes, child care facilities, hospitals, houses of worship, and schools. And those are scattered around in the map.

We don't have these up there because of safety concerns with the line, but that's something we look at with respect to noise.

And I know Mr. Dempsey asked a question about corona. So while that is a noise that's generated from the lines, it's a fairly minimal noise. So our real concern is more the temporary impact that -- that comes with the construction of the line. And that's all outlined in Exhibit I to our application TEP-1.

Okay. So I think I've oriented you to the map to the extent I'd like to. So I'm going to start describing this map.

I want to first go over just sort of some

route statistics on the right screen, so Slide 44.

So this route alternative Route B, so, again, this is just the first half of this route. It would cost around 9 and a half million dollars. It's -- and that cost is inclusive of right-of-way, any environmental work that might be needed, engineering procurement, construction, so that's everything.

It would go through about a mile of residential area. All of which is considered low income. And it would go through some historic districts about .3 miles. And one of the things that we looked at was trying to maximize the use of existing overhead utility corridors. So this route really takes advantage of that.

74 percent of the route would go where we have existing overhead utilities today. And as a result of that, we would move 2.3 circuit miles underground if this route were selected, and 9.5 miles of overhead communication wires would be moved either underground or relocated.

The reason why I can't commit to underground is because those aren't our lines. Once we take away the poles they're going to have to go somewhere. We know they won't go on our poles, but they'll either go in the trench with our other utilities or somewhere else.

CHMN STAFFORD: Because there's a federal prohibition on attaching the communication lines to the highway voltage lines?

MR. BRYNER: So --

CHMN STAFFORD: I seem to recall that being mentioned before, but I can't recall what the prohibition was from.

MR. BRYNER: So I wouldn't call it a prohibition. I would say that for -- when you have lower voltage lines, then they are allowed to be on those poles by -- I don't know if it's by right maybe. Maybe you know that.

MR. ROBINSON: Yeah. According to the Communications Acts, joint use attachments are only allowed for poles that have distribution voltages on them.

So if you're higher than distribution voltages, they're allowed only if the utility chooses to do so. Joint use attachments are things like communication, fiberoptic, and other overhead attachments, even cellular sites, things like that.

CHMN STAFFORD: Oh, so they are -- they can be allowed. It just takes both the utilities have to agree, the telecom company and the utility company -- the electrical company I guess I should say?

MR. ROBINSON: That's correct. It has to be based on a mutual agreement, meaning we have permission to tell them no.

CHMN STAFFORD: But otherwise if it's distribution voltage, then you don't have that discretion, you have to allow it?

MR. ROBINSON: That's correct.

CHMN STAFFORD: And what do they define distribution voltage as?

MR. ROBINSON: Below 25kV.

CHMN STAFFORD: Okay. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: You are mentioning historic districts, residential districts.

Where on the map are the historic districts?

MR. BRYNER: The historic districts are not on this map, but they are on a map I'll show you in just a minute.

The other question that you might have is you're putting 2.3 circuit miles of distribution underground but 9.5 miles of communication. Why is that number so much larger? And that's because, as you'll definitely see on our route tour and I'm sure you've seen

just driving around, if you look at the wires that are in the lowest position on these poles, those are the communication lines, and sometimes there'll be one, two, five, any number of these lines on those poles.

Sorry. I've got a lot of controls here, and I'm trying to figure out which one I'm on.

Oh, the last thing, sorry, before I leave Slide 44. So we did receive a lot of comments. One of the things that we did once we'd identified all of the route alternatives is we asked for specific comments from the public and our stakeholders on those alternative routes. And so we received comments specific to these routes, and both in favor of the routes and in opposition to them.

So for Route B we actually just received one comment specific to this route that was opposed to it, and that was because it ran through neighborhoods.

And then we also received three comments that were in support of this -- specifically in support of this route. A couple of those were because -- or it maximized the use of existing corridors as I already discussed, and then also it was a less costly alternative route.

So with that I now want to direct your attention to the map on Slide 46. I'm going to walk you

through and kind of describe what's going on along this route.

So we're going to begin at DeMoss Petrie. So we talked a little bit about DeMoss Petrie and that site yesterday, but it's located -- in fact, this whole area as you can see on the color on the map is all an industrial area. And the DeMoss Petrie campus is fairly large, has a couple of substations on it today and some existing generation.

One thing I didn't mention yesterday that you'll see on our tour is we are rebuilding our 138kV substation there right now as a GIS substation. So that will be our second GIS substation that will be in service on our system.

CHMN STAFFORD: Which one's that?

MR. BRYNER: DeMoss Petrie.

CHMN STAFFORD: Okay.

MR. BRYNER: And so you'll see that tomorrow or Thursday.

MEMBER MERCER: Mr. Chairman?

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: I just have a question.

The jurisdictional boundary for Pascua Yaqui, is that where that casino's going to be?

MR. BRYNER: Yeah, Member Mercer. I'm

highlighting that right now.

So just south of Grant Road and just to the east of I-10, so that's land that is in trust with the Pascua Yaqui, and that is exactly where they're currently developing a casino.

MEMBER MERCER: Now I know where I am.

MR. BRYNER: So moving along on Grant Road. Grant Road is a major area material road. It was recently the subject of a public improvement project to widen that, and you'll see in a slide that we'll show in just a minute a visual simulation of the new reconstructed infrastructure that we have along there.

A lot of the distribution lines -- well, almost the entire length of this we would plan to put distribution lines underground. The land uses along this area are primarily commercial until you get a little bit further east, but that's outside of where we'd be crossing for Route B.

So our first visual simulation. This is located on Grant Road at the intersection with Stone Avenue looking -- and let me just orient you to what these little symbols mean on the map.

So you'll see symbol 30. So that means key observation point 30. So if you wanted to look in your application under Exhibit G-3 -- I believe it's G-3 of

the TEP-1, you'll see these photo simulations as well.

And this is the one that I corrected the record on because in your application we still had all -- oops -- we still showed all of the existing infrastructure on the -- since we're looking west, this is the south side of the road or the left side of the picture, all that existing structure was still there.

So that's utilities that we built, we rebuilt recently as part of this Grant Road public improvement project. Those are 46kV lines with distribution under build and then the communication wires down below. And those poles were built to a 138kV standard.

Throughout -- this public improvement process or project took a couple of years to build. And for a while, there were the old poles, the new poles. Anybody in Tucson thought Grant Road was the ugliest thing in the world because of our poles.

And so, you know, adding another pole line to this road was just going to further add to that blight. So we wanted to make sure as a company we're committed to having a single pole line down this stretch of Grant Road when this project is done.

That 46kV line that you see, that will be able to be retired as part of this project that serves

some of the 46kV substations that will be retired, and the distribution lines we'll place underground.

There may be an opportunity to reuse those existing poles for this 138kV line. And I'll actually let Mr. Robinson, if he wants to elaborate on that a little bit.

MR. ROBINSON: Sure. I'd love to.

There's been several discussions about the use of the new carbon core conductor and that technology to reduce the impact of the height of the structures. As we look at this, we'll definitely evaluate the possibility and the potential of reusing all these structures along 46 -- along Grant Road, excuse me.

But there are several different factors that need to be considered when you're talking about carbon core factor or carbon core conductor. One, the primary difference is the center of the conductor. A normal conductor has a steel core, and carbon conductor has a fiber core in it.

That fiber core is much, much stronger than steel. And so the core is a little bit smaller, which allows a little bit more aluminum current carrying conductor to be in the same profile. And it also allows you to string it at a much higher tension because of the rated breaking strength. That rated breaking strength

and that higher tension allows you to string it tighter.

One of the other properties is that the thermal expansion of that conductor is lower than the thermal expansion of steel. So when it's operating at its maximum temperature, it doesn't sag as much, right?

The tradeoffs for that, that higher tension and that tighter sag, means that you have a higher load on the structure at the dead ends and things like that, which can often result in a larger diameter structure, a heavier steel pole and a larger foundation.

So as we go through the detailed considerations of engineering, once this line is routed, we'll definitely consider where we can utilize these new conductor technologies and result in a benefit to the community, but it's not simply a solution for every setting.

MR. BRYNER: Thank you.

And as you can see, we haven't reflected us reusing those existing poles in our simulation. We've showed putting the poles on the opposite side of the road. The corridor we're requesting as part of the CEC would allow us the flexibility to go on either side of the road.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: One question about the poles. I see three different types here in the illustrations.

Is there any significant cost differential between them, or is it chosen by some other criteria?

MR. BRYNER: So you're probably talking about I think on the next couple of slides I've got two other finishes. And I'll just scroll through real fast to show folks those.

So you've got also the galvanized finish.

MEMBER KRYDER: Right.

MR. BRYNER: And the painted steel pole finish.

So to answer your question, Member Kryder, the weathering steel poles are the least expensive of these. The galvanized have a little bit of a premium on them. The painted poles, while they may not cost -- I'm not sure on the total cost initially, but the life cycle cost of those painted poles is much more because they're much more maintenance intensive.

MEMBER KRYDER: Thank you very much.

I personally like the COR-TEN, but that's a personal preference, the weathered steel I think you call it.

MR. BRYNER: That's what makes it so

challenging is there's a lot of personal preferences.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Looking at the pictures here, it looks like the pole, regardless of what color you use, is going to be on the inside of the sidewalk; is that true?

I mean, I know that when you're in town you're dealing with a whole lot more existing structures that you have to work around. So I'm assuming that if a pole needs to go where the sidewalk is, you'll relocate the sidewalk?

MR. BRYNER: That's correct.

So this is just a preliminary design. But, yeah, we would plan to relocate sidewalks, if need be.

MEMBER LITTLE: Thank you.

BY MS. GRABEL:

Q. And, Mr. Bryner, before you leave the slide, I know you've done so already, but if you could sort of underscore the amount of existing infrastructure that will be relocated or abandoned because of this project, because, as you see, comparing the left side to the right, this project really does clean up the view from Grant.

A. (Mr. Bryner) Yeah. So there is -- even today

even though we've removed all the sort of transitional poles on Grant, there's a lot going on there on the south side.

So, again, I kind of pointed out you've got the 46kV lines right here with an overhead shield wire, so you've got four wires up there. You've got primary distribution. This is three-phase with a neutral wire.

And then you've got some secondary running down here, another wire. And I'm not sure that I can see the number of communication wires, maybe three. So all of those wires will go away.

You've also got all those poles that will go away, which you can't quite count as many as that are in my view from right here, but those are spaced on a distribution span. So I talked earlier about how our typical transmission span will be 600 feet. These are more 2 to 300-foot spread apart. So for every three poles you'll have a couple poles on the transmission. So far fewer poles will be a result, far fewer wires, really cleaning things up.

All right. So now we've just entered into the Jefferson Park neighborhood, so kind of orienting you back to the map. Sorry. I jumped the gun on the -- on moving to the visual simulation.

But the Jefferson Park neighborhood is bordered

on the north by Grant Road. And so we've just entered that neighborhood. And there were quite a few folks from the Jefferson Park neighborhood who came out last night and spoke. This has been one of the more vocal neighborhoods on this project.

And this visual stimulation, now turning your attention to Slide 50, is on Park Avenue. Park Avenue is a collector road, so it's a little more -- a little less traveled road than the arterial road that Grant Road is. Not a residential street, still a main road. The primary uses along this are residential, but there are some scattered commercial uses along in here.

Another thing I want to point you to is we do have, again, existing 46kV, existing distribution infrastructure in this area that's located on -- we're looking north right here. So this is located on the east side of the street. And all of those wires, the 46kV wires, the distribution wires, the communication wires, and the poles supporting them, will all be retired to 46 or placed underground for the lower voltage distribution.

And, again, here we're illustrating our new 138kV line on the west side of the road. It could go on either side depending on how we're able to stage things. But in the end, we'll have one line going down the road here.

A. (Mr. Robinson) All right. Can I add --

A. (Mr. Bryner) Yes.

A. (Mr. Robinson) Can I add a comment here?

With respect to the rendering of the new 138 line, this is a common observation from our point here. You can see the 138 line the conductor is all positioned to where it's on the street side. We did that intentionally to try to reduce the amount of blowout impact that these roads -- that these wires would have on the customers and on private properties.

So with it offset to the street side our required easements and overhang easements on the customer side will be a bare minimum except for where we have a route where there's common double-circuit lines that would be required. And I'll talk a little bit about each segment where there's potentially overlapping routes.

A. (Mr. Bryner) And I'm not going to show all these visual simulations and all the finishes. I'll just show them in our preferred weathering steel finish, but if you want to see in Exhibit G-3 of our application, we have each key observation point in all three materials. So if you're wanting to get an idea of the different perspectives and what pole finish might look better.

So this is another visual simulation also on Park Avenue looking south this time. So you'll see that

same 46kV line, distribution line running along the east side of the road. There's an apartment building on the right side or west side of the road, again, going through a primarily residential area here.

And, again, on this -- all of this infrastructure, all of these wires, the 46kV circuit, the distribution, the communications, those would all be removed or placed underground. Also, even this wire coming into this light pole here, we didn't quite get that removed in our visual simulation there, but it's attaching to nothing in this case. That would have to be relocated underground as well.

Actually, before we get to this one, I just want to talk about one other thing. So I'm going to refer to you back to the map on Slide 46 on the left.

So in this area right here, our route leaves the Jefferson Park neighborhood and enters the North University neighborhood. Again, there were quite a few folks that came out from the North University neighborhood last night to the public comment.

One thing that I think was also mentioned last night is our route proposes to use Adams Street. Now, Adams Street is a residential road. You'll see that on the next visual simulation. The reason that came up even -- because we don't typically look at a residential

road as a great opportunity to put a line. But we have our 46kV. And I know you can't see the pinpoint on this, but there's an alleyway just north of Adams Street. And that's where your 46kV line runs today into our U of A medical substation.

Once we got fairly far down the process of looking at different routes and we got into looking at some more detailed engineering, we looked at that area and found that the alleyway had been encroached upon by buildings over the years, and there was just no way that we could go and safely rebuild that 46kV line to a 138kV line in there.

And so we looked at the roads on either side of that alleyway. In this case it was Lee Street on the north, Adams Street on the south. Adams Street was a little bit wider, had further building setbacks, and also has a parking lot for a fairly good stretch of it, and so that's why we moved it to Adams Street.

I'll talk on one of the panels that we have about some of the things that we did to make sure that we notified folks of that sort of late-stage change in our game plan.

So this is looking down Adams Street now. So this is from Park Avenue looking east down Adams. So as I pointed out, you do have residential uses, some

single-family residential uses, also some multiplexes and some apartment buildings on this. Basically Adams Street I would characterize it as the northern edge of the university kind of campus area or influence -- area of influence.

And then you've got a parking lot that you can see on the south side of the road, and we're depicting our 138kV line on the south side again with flexibility to go on either side.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Just a question.

Electromagnetic fields. In residential areas a lot of people are concerned about the electromagnetic field from these wires.

If you look at the 46kV side and you go to the 130-some-odd-kV side, it's a lot higher. What is -- is the electric field, the electromagnetic field, less for those tall poles since it's much higher in the air than the other ones that are closer to the ground, closer to the buildings?

MR. BRYNER: So electric and magnetic fields, they decrease with distance. And so, yeah, so because they're located higher up they have more distance to decrease that field.

We do have in our application some numbers on that if you look under -- in Exhibit I. I don't have those off the top of my head, but I could -- I could pull it up if you'd like me to.

MEMBER GOLD: No. I was just curious that since it's higher voltage it would have a stronger field, but it's higher up, so it may have less of an effect. So I'm just asking you in general would there be an equivalent electromagnetic effect, or would it be less with the new equipment you're installing?

MR. ROBINSON: I don't know the answer to that question.

MR. BRYNER: So I don't know. But your rationale is -- is definitely correct. So I'd have to see what the ground level -- what it was at that distance.

But we did do some measurements for this project, so maybe I can look it up on the break and let you know.

MEMBER GOLD: I'm just curious if we're increasing the effect or decreasing the effect. Obviously it looks better.

It may be -- you know, for those people who are concerned about the health effects, it may, you know, be better than what's there now, just questioning.

MR. BRYNER: So moving on to another visual simulation on Adams Street. So this is on Adams Street at Vine Avenue, so we're really close to the Vine Substation right here.

So, again, looking back west, here this is primarily your single-family residential. And there are no existing overhead utilities along Adams. I didn't point that out. So this would be -- would be new infrastructure. We're proposing to locate it on the south side.

And I think, Mr. Robinson, you wanted to mention some things here.

MR. ROBINSON: Yeah. I just wanted to point out that according to the simulation you can see, again, a single-circuit configuration coming down Adams Street.

And as you look at our route proposals, there are three -- I think three other routes proposals that use Adams to Vine as a common corridor entrance into Vine Substation.

So we didn't want to predetermine and we didn't know what your recommended routes would be, so we didn't show this line as a double-circuit line. But this line depending on the routes that you approve in your CEC could be a double-circuit section of line.

So in that case, you would have back-to-back insulators on those poles with another circuit to the south closer to the housing.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Well, we'll probably see this on Thursday, but how far down Adams in that section that is running east and west are -- I see the parking lot there, but how far down are the apartment complexes? And, I guess, the question would better be asked where do the single-family homes start?

Is that mostly single-family homes or half?

MR. BRYNER: It's a great question. I would say it's probably about half. You do have -- there's a fairly large apartment building. If you see the large pine tree right here. So there's a fairly large apartment building in front of that. But then you have a lot of multiplexes that are kind of scattered throughout here.

MEMBER LITTLE: Thank you.

MR. BRYNER: Yeah. Sorry. I wish I had a really clear answer for you.

MEMBER LITTLE: We'll see it.

MR. BRYNER: So at this point the route then turns onto Vine Avenue. And so this is looking at

the visual simulation on 54. I'll just point out this wall right here, this red wall lined with the kind of concrete outline, that is the wall around our existing U of A medical substation that you've heard about.

These are the 46kV lines dropping into that substation. They come in from both the south and the north in this case running through the North University neighborhood as well as running through the Jefferson Park neighborhood.

The other substation that's actually operated by the University of Arizona is just south of this substation just out of the frame. So looking at the visual simulation here, you probably say, wow, it looks great in the current situation, but you had a whole lot of wires in this new situation.

So what we're simulating here right here is sort of the worst-case scenario. We're going to have to do some cutover as we change from a 46kV system to the 138kV system where we're going to need to have that 46kV substation in service and serving our customers while we build the new 138kV infrastructure and the station and everything before we're able to retire that.

But I think Mr. Robinson has a little bit of a game plan so that we can avoid having something look like that even temporarily.

CHMN STAFFORD: I have a quick question.

MR. BRYNER: Yeah.

CHMN STAFFORD: Looking at the image on the left, that rusty looking box, what is that?

MR. BRYNER: Are we talking --

CHMN STAFFORD: Yeah.

MR. BRYNER: -- this?

I believe that's sort of a weathering steel fence around that home.

CHMN STAFFORD: That's -- you said that's what, your substation?

MR. BRYNER: No. I think that rusty -- if I'm -- is this the rusty box you're talking about?

CHMN STAFFORD: To the right is the substation, is that what you're saying?

MR. BRYNER: On the right side of the picture is the substation. On the left side that box is a perimeter fence on a home.

CHMN STAFFORD: It looks like it's photoshopped in. It doesn't look like it's really there. That's what was throwing me off. I was --

MR. BRYNER: It's there. I promise we photoshopped the simulation. We didn't photoshop the fence.

CHMN STAFFORD: Yeah. It looks really odd

to me. Is anybody else getting that, or is it just me?

MEMBER MERCER: To me when you look at the two pictures together, it looks like the substation is right behind that house. But then you look at the other side is the house is there.

CHMN STAFFORD: Right. Yeah. That's why I was getting confused there.

Okay. All right. That's actually there. That's their real fence. Okay.

MR. BRYNER: The bad thing this is only day two. It's going to be interesting on day five of this hearing what we're seeing.

MR. ROBINSON: So I just wanted to clarify what Clark was saying. What is being depicted here as a potential temporary solution is a conservative view; right? Our actual practice would be to put a temporary 46 line on the west side of Vine that would allow us a clean corridor to build the 138 line up the east side of the street and optimize the height of the structures so they are shorter, and we don't have to put a permanently taller structure to accommodate the temporary 46 lines underneath them.

So that's what our plan would be is to build a temporary line on the west side, cross across the street underneath the new 138 line so the 138 line

doesn't have to be so tall.

BY MS. GRABEL:

Q. So just to put a final point on it, Mr. Robinson, which of the lines on the simulated condition will be removed from view?

A. (Mr. Robinson) These lines here will be removed out of the -- out of the actual work that's done.

Q. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: So a question, again, just for clarification.

The right side of the screen, the left side of the image, right and left side, the street down the middle, the high voltage line is on the right-hand side.

What's that on the left-hand side, and is it going to stay there?

MR. BRYNER: So those are poles with communication attachments, and they don't have any of our wires on them. So they're sort of independent communication poles. So we wouldn't really have a say on that.

MEMBER GOLD: So those are not electric lines? They are communication lines, cable, and telephone?

MR. BRYNER: Yep. Correct.

MR. ROBINSON: Telephone, cable, fiberoptic, yes.

MR. LINDSEY: Mr. Chairman.

MEMBER GOLD: But they're not allowed to attach them to your poles; right?

MR. BRYNER: They could be allowed if we allowed it.

MR. ROBINSON: That's correct.

CHMN STAFFORD: They don't have to allow it.

MEMBER GOLD: Oh, okay.

MR. BRYNER: For the distribution we kind of have to allow it, which is probably a good thing. We don't want to have double lines running everywhere.

But for the higher voltage lines we don't have to allow it.

MEMBER GOLD: So the people with that horrendous fence who live in that house obviously -- well, I don't know, did they complain at all about two sets of, you know, telephone poles on both sides of the street?

MR. BRYNER: I don't know.

MEMBER GOLD: I would be curious, but it's --

MR. BRYNER: Yeah.

MEMBER GOLD: -- not your problem. Okay.

MR. BRYNER: One other thing before we leave this slide that I just want to point out is -- and this was kind of a miss on our simulation as well. But if you see those smaller poles in the distance beyond your simulated 138kV pole, those are 46kV poles that will be retired as part of this project, so this will be removed.

CHMN STAFFORD: Member Little, you had a question?

MEMBER LITTLE: I did. Do you have an approximate distance for this proposal going down Adams, the section of line that's on Adams and the section of line that's on Vine, what that distance is?

MR. BRYNER: So I'm going to give you a frame of reference here. You know, I made this map right here on the left and I didn't put a scale bar, which is breaking all rules of mapmaking.

MEMBER LITTLE: Uh-huh.

MR. BRYNER: But between Grant -- whoops, sorry. I need to switch over.

So between Grant Road and Speedway is one mile. Between Park Avenue and Campbell Road -- or Campbell Avenue is one-half mile.

So Adams Street I'm going to say it's a little over a quarter of a mile. Going up Vine is a couple hundred feet.

MEMBER LITTLE: Thank you.

MR. BRYNER: And I just remembered one other thing I want to show you on the simulation here.

But our Vine Substation is basically located in that area right there is where it would be located.

And we would plan to -- the wall that you saw on the simulation there, it replicates not the wall around our substation but the wall that's around the University's substation just south of us. And, again, we'll point those out on the field tour.

CHMN STAFFORD: So in this picture on Slide 54 on the right, there's an existing substation in the right corner there, that's what this fence is for; correct?

MR. BRYNER: That's correct.

CHMN STAFFORD: And then another substation is going to further back behind those trees?

MR. BRYNER: Yeah.

So basic -- so our substation wall ends I know -- if you can see right in the center of that spotlight, that's where the substation wall ends. That

will be the beginning of the Vine Substation. It will be -- share that same wall of that existing substation and extend north.

CHMN STAFFORD: Okay. So it's almost just an expansion of an existing substation as opposed to an entirely new substation?

MR. BRYNER: You might characterize it that way.

CHMN STAFFORD: But there will be several fence --

MR. BRYNER: Probably got a little squirrelly in the wording.

CHMN STAFFORD: Yeah. But it's right adjacent to the existing substation?

MR. BRYNER: Correct.

MS. GRABEL: And actually, Mr. Chairman, Mr. Bryner, there are two substations that currently exist right along that area; correct?

MR. BRYNER: That's correct. And one of those substations is a GIS substation. The University Substation is a GIS substation.

BY MS. GRABEL:

Q. So we'll see this on the tour, but the UA med substation is -- you know, will you highlight that for me?

A. (Mr. Bryner) UA med is right there.
Q. And then immediately adjacent to that is our 46kV?
A. (Mr. Bryner) So U of A med is a TEP substation.
Q. Oh, I'm sorry.
A. (Mr. Bryner) The university's I believe they call it Health and Science Substation is adjacent to that.
Q. And will you show them where each of those is so they can see the substation -- the substation -- proposed substation?
A. (Mr. Bryner) I'd love to, but the university substation is out of the frame. It's just to the edge.
Q. We'll see it on the tour.
A. (Mr. Bryner) It's just to the edge.
CHMN STAFFORD: All right. Thank you.
MEMBER KRYDER: Mr. Chairman.
CHMN STAFFORD: Member Kryder.
MEMBER KRYDER: Looking -- continuing kind of that discussion, you said that the new Vine -- I understood better said -- that the new Vine Substation wall would be identical to the distant wall what we see on the right-hand simulation; is that correct?
MR. BRYNER: So it's not correct. So that wall that you see is the wall around TEP's current

substation.

MEMBER KRYDER: Okay.

MR. BRYNER: Since that substation is going to be removed, we were planning to mimic the wall that's around the University of Arizona-owned health and science substation that you're unfortunately not able to see in this image.

MEMBER KRYDER: Okay. So the university-owned substation is just because they're a big user they have their own substation, or is this all over the area served by TEP that individual landowners have their own substations?

MR. BRYNER: So it's not a typical thing. We have a few larger customers who receive a higher voltage rate, and as part of that they're responsible for transforming their own voltage. So they take it at that high voltage, they transform it, and distribute it to themselves.

MEMBER KRYDER: Okay. Thank you very much. That's very clarifying.

MS. GRABEL: Mr. Bryner, it might be helpful to show them Slide 40 which has the simulation of the Vine Substation.

MR. BRYNER: Sure.

CHMN STAFFORD: I had a quick question

about the U of A substation. So they -- so they have a tariff that they just take -- so they're not on the distribution system? They take delivery from the transmission system and transform it themselves?

I know that mines do that. Does the university do that as well?

Is it similar to that or virtually the same or there's specific differences between the way the mines do it?

MR. BRYNER: I'm not an expert on that.

I would say for my mind similar to what the mines do. They take it at that -- they receive a different rate than a customer who's receiving it through the distribution because they're now responsible for paying for costs associated with transmission and distribution of that.

Whereas a customer who takes it a transmission rate they're only responsible for the costs of the transmission system, and they're taking those other costs on themselves.

CHMN STAFFORD: Right. And one of the effects of that is that they don't pay the surcharge for demand response energy efficiency surcharge because they don't -- it's on the distribution system they don't take -- they don't take service through the distribution

system; is that correct?

MR. BRYNER: I don't know. Do you know?

CHMN STAFFORD: I know the mines don't because they just -- they get -- they don't pay those costs. They don't pay for any -- when they're -- in their rates the costs related to the distribution system are not allocated to them because they don't use it.

MR. BRYNER: If you'd like to -- no doubt somebody in this room has the answer or we can find it so we could get it back to you.

CHMN STAFFORD: I'm just -- I -- I think that's because that's, like, one of the benefits of taking it that way despite the -- because you have to deal with it, your own transformer, but I'm just saying it's -- I'm just curious.

I just want to make sure that's what the university's doing that's similar to what the mine does, and that's they don't incur -- so they're not allocated those costs. They just --

MR. BRYNER: I believe so.

CHMN STAFFORD: Okay. Subject to check.

All right. Thank you.

Please proceed.

MR. BRYNER: So before I jump on, let's just -- let me just -- oh, boy, I forget about all these.

I thought it was going to be an easy switch. There we go.

So, yeah. So the wall we were talking about, you can see it's a little bit different than that design, sort of that -- that red with the white outline on it. This wall is it's a red brick and a little bit different design. Same idea.

CHMN STAFFORD: In the current condition, what is that?

MR. BRYNER: The -- are we talking about --

CHMN STAFFORD: White building, what is that?

MR. BRYNER: That's a white -- so those are some of the old University of Arizona maintenance and facilities buildings, and it's surrounded by kind of a blue wrought iron fence.

CHMN STAFFORD: But TEP's acquired that to put the substation on, then?

MR. BRYNER: We have.

And we're going to go inside some of those buildings for our tour stop.

CHMN STAFFORD: Okay.

MR. BRYNER: So that we can get out of the sun.

CHMN STAFFORD: Thank you. That will be

appreciated.

MR. BRYNER: Okay. So kind of moving on from a general route description, I'll orient you back to the map, which is -- has changed now to Slide 55 and talking about some of the existing plans that are pertinent to this route, and, in fact, all of the routes.

So all of our route -- our alternative route segments are fully within the jurisdiction of the City of Tucson. And so they all fall under the general plan of the City of Tucson, which is called Plan Tucson. So that plan is intended to guide the creation of policies and ordinances and provide guidance on land use decisions.

So there are also specific plans. And I know we had a little bit of discussion on that yesterday with Mr. Lusk. And I'm sure he and his witness will share more details on this. But there are specific plans that kind of help to implement the general plan on a more localized level. And those come in the form of neighborhood and area plans. So area plans, I guess, would be the next level up, and neighborhood plans the more -- the most specific, most localized level.

And so on the map here, the area plans are illustrated with a hash mark that kind of tilts to the left and the neighborhood plans with a hash mark that

tilts to the right. And then you'll see, like, around Jefferson Park you've got a cross-hatching. That's where you have both an area plan and a neighborhood plan that overlap one another.

So Plan Tucson, again, that's Tucson general plan, doesn't include any specific guidance on the placement of the utilities.

Of the four specific plans -- and I'm not going to name those all, but if you want to see the names of those, those are in blue lettering on the map. But of those, only the University Area Plan includes any language specific to the placement of utilities. And I'm going to quote that language just to put it on the record.

It says, "Wherever possible place utility and service equipment underground or in other visually screened areas."

Now, TEP, we believe that we are consistent with the University Area Plan because we further the purpose of that plan by a net reduction of 11 miles of overhead utilities as part if Route B were selected, and we would remove 49 existing poles from within that plan area. Now, that's again just pertaining to Route B. And we believe that we're consistent with all of the other specific plans within the area.

One other thing that I want to just mention, I guess, on this is just to kind of put it in context. On the University Area Plan, so that plan was adopted in 1989. And since that time, TEP has installed -- well, installed 1,934 poles within the University Area Plan.

We have 5,000 poles installed in there. So we've installed roughly 40 percent of our poles since that plan was adopted just to give you an idea. And we'll be removing some of those poles as part of this project. So, again, we feel like we furthered the purpose of that plan.

BY MS. GRABEL:

Q. And, Mr. Bryner, just to clarify, you've installed those poles aboveground; correct?

A. (Mr. Bryner) That's correct.

Q. Thank you.

A. (Mr. Bryner) Okay. And --

MEMBER LITTLE: Question.

MR. BRYNER: Yeah, sorry.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: What you mentioned, the Plan Tucson doesn't talk about utility placement.

How about the Jefferson Park Neighborhood Plan?

MR. BRYNER: It does not mention the placement of utilities either.

MEMBER LITTLE: Okay.

MR. BRYNER: Okay. So moving on to the Gateway Corridor Zone. I know we've spent some time discussing this. So that's applicable to gateway and scenic routes that are identified in the City's major streets and routes plan. I think we mentioned that that was adopted in 1982.

And it does have some guidance in there specific to the placement of utilities. And, again, I just want to quote this one. It says, "New utilities for development on private and on public right-of-way along gateway routes shall be underground."

CHMN STAFFORD: And, Mr. Bryner, these perpendicular crossings, this is what you were talking about when you talked about getting the special exception to the undergrounding code from the City, it's because it's not going to run parallel. It's going to perpendicularly cross; correct?

MR. BRYNER: That's correct.

CHMN STAFFORD: Those are the -- okay.

MR. BRYNER: Yeah. So we would have -- Route B would have a perpendicular crossing of the Gateway Corridor at Oracle Road, and that would be the

only place that it intersected.

And we do believe that -- so we talked a bit about the special exception process that was developed with the City in coordination with TEP. And we believe that under criterion D of that special exception that we would be able to build not just that portion but all of Route B overhead.

I guess one other thing just to kind of put it in context, too. So there are lots of Gateway Corridors throughout the Tucson area. And since it was implemented or the Gateway Corridor ordinance was implemented in 1982, TEP has installed 2,002 poles within those Gateway Corridors out of a total of 2,704 that are installed.

So 74 percent of poles installed within Gateway Corridors have happened since that ordinance was passed. In terms of mileage, we've installed 47 miles of distribution and/or 46kV lines since the ordinance was passed, and we've installed 16 miles of overhead transmission.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I think I know the answer to this, but to clarify for me, looking at Grant Road where it crosses the Oracle Road, under your proposed B,

I guess this is called, those would be higher structures to go up and over Oracle and so on, or are they essentially the same as if you go back 600 or 1200 feet from Oracle?

MR. BRYNER: Yes, Member Kryder. So good question.

Those would be the same as any other structures that we would install along Grant Road. Oracle Road, it's a major arterial road very similar to Grant Road, but it doesn't have any bridge crossings or anything else that would require those kind of -- those taller structures we discussed.

MEMBER KRYDER: Thank you very much.

MR. ROBINSON: So, Commissioner Kryder, it is true that we would have to go up a little bit to cross over the major traffic signals and things like that and the streetlights that are associated with that crossing. But it's not the top end of the heights that we have in our -- in our application.

MEMBER KRYDER: Thank you again.

MR. BRYNER: All right. So talking about other overlay zones, there are a few other overlay zones that are applicable in this area.

So we have neighborhood preservation zones, which these are codified in the Uniform Development Code,

the UDC, and their purpose is to preserve and protect historic resources, and they do that through the development of neighborhood-specific design manuals.

And those are represented -- the neighborhood preservation zones are represented with that left -- whoops, am I on the wrong -- yeah, with the left tilting hash marks, so you've got the Jefferson Park Neighborhood Preservation Zone and the Feldman's Neighborhood Preservation Zone.

Not shown on this screen right now but it will be pertinent to some of the other routes are what are called historic preservation zones, and those, again, are codified in the City's UDC, and their purpose is to preserve and rehabilitate significant historic districts through compliance with neighborhood-specific design guidelines. So some similarities between those two, both have a historic component.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Another question that I heard yesterday for the first time in the public presentation. I seem to recall one of the -- one of the people who gave testimony said words to the effect that if above -- this was presented overhead, it had the potential of taking a historical zone or area or building

and having it lose its designation as such.

Is -- I know this is out of your realm, but I had never heard this, and you all must have touched on it at some place.

Meghan?

MS. GRABEL: Yes. Thank you, Member Kryder.

Actually, the next slide addresses the historic preservation area. And we do have an exhibit, which is TEP-4, in which we have Mr. Bryner's correspondence with the state historic preservation office. And it addresses exactly the question you're asking. So I think if we let Mr. Bryner continue, he'll answer your question.

MEMBER KRYDER: And the related question was someone else brought up, oh, not only can we lose our historic preservation capability, but, oh, by the way, we get a significant real estate tax abatement.

Are you going to touch on that, or did I hear that wrong?

MS. GRABEL: I think you heard that correctly, and Mr. Bryner will discuss it on the next slide.

And I misspoke. It's TEP-24, not 4.

MEMBER KRYDER: Thank you very much.

MR. BRYNER: Yeah, so if you're okay holding on just a second, I'll finish up my discussion right here and then address your question.

So there's just one other overlay zone that I wanted to cover right here, and that's what's called an archaeological sensitivity zone. And those are represented with kind of these, like, blue diamonds pattern. And those are not codified. Those are simply a planning tool to help the City of Tucson when work is done, when work is being performed within City rights-of-way to provide for the protection of historic or archaeological resources that requires that whoever's doing the work have a professional archaeologist monitoring any ground disturbing activities.

So that's something that TEP -- we work with the City all the time. Most of our facilities are in City rights-of-way. And so when we fall on that, we always have the professional archaeologist out there.

CHMN STAFFORD: So in that area it says Stone Pipe, and then there's the San Ignacio Yaqui. That seems to be that's where the archaeological sensitivity zone is.

What -- it looks like part of that is residential use. What's going on with the rest of it? Is it vacant land, or are there things built there?

MR. BRYNER: The whole area right there is built up.

To Member Mercer's point, there's -- it was an old movie theater for many years, and now it's being rebuilt as a casino. So it's all built-up land.

CHMN STAFFORD: Has it all been surveyed then? I mean --

MR. BRYNER: I don't know. I will speak -- I don't know about that particular area.

But for the whole route, a lot of it has been surveyed for cultural resources, but a lot of it has not been. It depends on the route.

CHMN STAFFORD: And looking at the map, it appears that the orange line is on the opposite side of the road, so it would not be in that archaeologically sensitive -- sensitivity zone, correct, or is that just --

MR. BRYNER: I'll say I'll leave it to the City of Tucson when we apply for our right-of-way use permit to say whether or not we need to have a monitor there.

These are -- maps are kind of pictorial, so I can't say exactly where it starts and stops.

CHMN STAFFORD: Okay. So the preferred route isn't married to the north side of Grant Road,

then?

MR. BRYNER: So our preliminary design shows it on the north side, but we're requesting a corridor that goes on either side.

CHMN STAFFORD: Okay. Just to make sure we know what we're talking about.

MR. BRYNER: Sure.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: This map -- I'm a little confused. This map just shows two neighborhood preservation zones in addition to the archaeological sensitivity zones; right?

There's no historic preservation zones.

MR. BRYNER: You're correct. I just wanted to provide that context because you'll see that in a minute.

MEMBER LITTLE: Okay. Thank you.

MR. BRYNER: And for these I kind of talked about the compliance with the archaeological sensitivity zone.

With respect to the neighborhood preservation zones Route B is not inconsistent with these zones.

And, again, we would follow any requirements to have professional monitors on-site.

Okay. So now getting to Member Kryder's question on the historic districts.

So let me first just give an explanation of what historic districts are. So they are listed in National Register of Historic Places, and they identify a group of structures that represent a certain period at either the local, state, or federal level a certain period in history.

It's comprised of multiple contributing properties that when you look at as a whole they convey some sort of significance for that particular aspect of American history.

And a contributing property is a structure that contributes to the historic significance or the visual character of that district and one that maintains enough of its original qualities that it can visibility convey that significance.

So in this case, our Route B does cross through three of these recognized historic districts. You have Miracle Mile, Jefferson Park, and adjacent to Feldman's. And I believe we heard from at least people from two of these -- of these areas. I'm not sure that we had anybody speak to Miracle Mile yesterday.

Now, these are not the only historic districts. We have many historic districts that you'll

see on other routes as well that we pass through or are adjacent to.

And so we had a third party do a historic district analysis. And that's found in our application under Exhibit E-4. And they concluded that none of the routes in the project would impact the designation of any of these historic districts, and that was confirmed with the City of Tucson's historic preservation office as well as with the State historic preservation office.

BY MS. GRABEL:

Q. And, Mr. Bryner, is the confirmation that you just discussed from the state historic preservation office contained in Exhibit TEP-24?

A. (Mr. Bryner) It is.

Q. Thank you.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Just to continue that discussion just a bit, Mr. Bryner. This all confuses me. I'm old enough to be historic I've been told, but I'm not sure that makes me a district or impacts my taxes.

But in looking at this, the state historical association or society, whatever, office, has said that overheading these would not impact the historical verifications or anything of this district.

Is that a fair estimate or statement?

MR. BRYNER: So it won't affect the status as a designated historic district. So to affect the status of it you'd have to affect the contributing properties. So, in other words, we would need to demolish some of those buildings or do something to alter them, so which we're not proposing to do.

MEMBER KRYDER: Okay. So the people I know from Jefferson Park were here last night and some other places and -- in the literature we received, and I know that they had spoken about or written about serious concerns that this was going to impact their historical district, and yet I've got the state organization saying it's not going to.

What's the interface here that I'm missing?

MR. BRYNER: So I'll say that we've tried to convey this to neighborhoods, to concerned residents, customers, and I would just say maybe we failed in communicating that it would not have an impact.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Member Hill.

MEMBER HILL: My recollection of the testimony wasn't that it would affect the neighborhood or the designation of the district. My recollection was something about if it was a national historic site.

So it was not the State's -- it wasn't the State purview. It was the Federal purview. And I can look back at my notes. But I remember her saying if it's been designated a national historic site, and there are probably certain homes that have that designation separate and apart from the district, those were the ones they were concerned about.

So one of my questions was have you actually mapped the national historic preservation sites in these neighborhoods?

Do you have a map of that?

MR. BRYNER: So that's exactly what we're referring to. These are national -- they're listed historic districts on the National Register of Historic Places. And the State historic preservation office is the one who -- I don't know exactly how the law works.

MEMBER HILL: We're all out of league here.

MR. BRYNER: But they make the designation or they make that determination.

MEMBER HILL: So you're saying, just to clarify, that a nationally designated historic site will not be affected? Its status will not be affected by the transmission lines?

MR. BRYNER: That is correct.

MEMBER HILL: Okay.

CHMN STAFFORD: And that's what -- exactly what SHPO has confirmed in TEP-24 then.

MR. BRYNER: Correct. Now I will note that in TEP-24 SHPO did confirm that while it won't affect the status of the designation, that that doesn't mean it won't have some visual impacts on those areas.

MEMBER HILL: Thank you for that clarification.

MR. BRYNER: And so they did recommend -- there are recommendations in our TEP Exhibit E-4 to minimize visual disturbance associated with our line.

And so, yeah, that -- we would fully intend to follow the advice of SHPO to work with them as we get into the design of our line so that we could minimize that.

CHMN STAFFORD: Okay. But it's, like -- I know I'm beating this to death, but it doesn't affect the designation as a historic district, then?

MR. BRYNER: That's correct.

CHMN STAFFORD: We are certain of that?

MR. BRYNER: Unless we demolish a building, we can't affect it.

CHMN STAFFORD: Okay. All right. Member Little, you had a question.

MEMBER LITTLE: I just wanted to say for

the record as an owner of a house that is -- has national historic designation, there's a difference between the site and the district.

MEMBER HILL: That's what I was trying to get at.

MEMBER LITTLE: And so there are homes in the district that my house is located that are on the National Register of Historic Sites. And the restrictions for what can be done to my home are different than the restrictions for other homes in the district. So I don't -- just to inline with that Member Hill said.

MR. BRYNER: Yeah. And amongst these there are a number of individually listed properties within those districts. And those are -- I'm not prepared to summarize those, but they are in our report.

MEMBER LITTLE: And we know that those homes' designation will not be affected?

MR. BRYNER: Correct.

MEMBER LITTLE: Individual sites?

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: So a statement made by some of the visitors said historic districts will lose tax breaks is wrong?

MR. BRYNER: So the tax break is basically tied to the historic district where you're essentially giving up some of your rights to have control to modify your home or your business, whatever the building is, and in exchange for that you are getting a property tax break. If the designation of the historic district doesn't change, your tax break status should not change.

MEMBER GOLD: Thank you.

CHMN STAFFORD: Unless, of course, you modified the building so it no longer complies, doesn't look historic anymore.

MR. BRYNER: Yeah. And then that would be their choice.

CHMN STAFFORD: Right.

MR. BRYNER: Nothing we're going to do.

CHMN STAFFORD: Right. So then you'd lose your -- the designation and then be subject to higher taxes.

MR. BRYNER: And I believe that that's -- again, Member Little could probably confirm this better than myself, but to be a district you have to have over 50 percent of the properties within that area have to be a contributing property. In other words, they have to, you know, have enough of that character that represents that period that the district represents that they can

convey that moving forward.

So if properties make those changes and it goes below the 50 percent threshold, then the district loses its status and all the homes within it lose that tax break.

CHMN STAFFORD: But you'd have to do -- that would have to be affected by changes to the structures themselves, not additional infrastructure in the neighborhood, though?

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay.

MEMBER GOLD: So if you had power lines over the Alamo, would that affect its historic status in any way?

MR. BRYNER: I don't feel like I'm in a place to make a decision on that.

MEMBER GOLD: I'm just taking it to an extreme.

So these the power lines over the houses or in this area will not affect the historic district?

MR. BRYNER: It won't affect the historic district, not to say that it doesn't have a visual impact.

MEMBER GOLD: Okay.

CHMN STAFFORD: Right. But there are power

lines running to the Alamo now, aren't there?

I mean, it's not -- it has electricity inside it, doesn't it, when you go visit it?

MR. BRYNER: I've never been there.

MEMBER GOLD: I think they're underground.

CHMN STAFFORD: But they run to the building?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Historically speaking, if we go back 40 years, I would suspect there was very little undergrounding. Perhaps that's what needs to be preserved.

MR. BRYNER: That's a unique spin.

BY MS. GRABEL:

Q. Mr. Bryner, just for the record, will you please again refer this Committee to the report that we commissioned that reaches the conclusions you've just testified about.

A. (Mr. Bryner) Yes. So it's Exhibit E-4 of our application, which is TEP Exhibit 1.

Q. And, once again, for the Committee's benefit, Exhibit TEP-24 also includes two conditions to the CEC that the State Historic Preservation Office suggested we include in the CEC; is that correct?

A. (Mr. Bryner) That is correct.
Q. And the form of CEC that TEP has provided to the Committee for consideration includes those conditions; correct?
A. (Mr. Bryner) Correct.
Q. Okay. Thank you.
CHMN STAFFORD: I thought I heard another voice besides Member Gold's from down here with a question? No?
All right. Please proceed, Mr. Bryner.
MR. BRYNER: Okay. Thank you, Mr. Chair.
One last thing that I want to talk about before we leave this slide that is historic in nature, we had a Class I cultural resource study, which is a record search of what's been surveyed up to this point, and that's also found in our Exhibit TEP-1 under Exhibit E-2.
And we found through that that there were three sites in proximity to Route B. Two of those were eligible for listing on the National Register of Historic Places and one was found to be not eligible.
There was a recommendation that we have a monitor present if we do any ground disturbing activities within proximity to those two eligible sites, which is something that we would definitely commit to do. But as a practice, TEP does try to span whenever possible these

sites so that we can just fully avoid any potential impact.

CHMN STAFFORD: Right. Because the impact is from the structure itself, not the span.

So if you have -- it's the placement of the pole that impacts the site, not the spanning of the conductor across it.

MR. BRYNER: Correct. One of the nice things about an overhead line.

CHMN STAFFORD: Right. Because if it's underground, then there's no way to avoid disturbing it. You'd have to remediate it?

MR. BRYNER: Correct. And that's one of those concerns that is an unknown about an underground line is you don't know what you're going to find, and this is -- as you'll see over and over again, as I go through some of these different routes, this is a historic and prehistoric area with a lot of history.

CHMN STAFFORD: All right. So follow-up to that.

Say you were going to underground the line and you come across these historically eligible sites, and you have to remediate it, what kind of additional costs would you incur?

Or does your -- we haven't gotten to the

estimates, but does that include this type of event, or is that -- would that be in addition to what your expert's going to testify about, about the costs of undergrounding?

MR. BRYNER: So that would be in addition to what he'll testify about. But those costs -- so to remediate a site, depending on what happens, let's say you find a burial or something, I mean, it's going to result in stopping the work, fully excavating, looking into that.

Or say you come across some foundations or different things that were from some thing and you have to do some extensive excavation, you can have hundreds of thousands, in the millions of dollars, and it can take you years to do that, so a significant project delay, significant additional costs.

CHMN STAFFORD: All right. Thank you.

MR. BRYNER: And the last thing I want to mention before we leave Route B is just the effect on low income.

So one of the things is we've met with the public that they determined was one of the most important considerations that TEP have on the selection of a route was that we don't have a disparate impact on low-income communities.

So -- and I think we've heard about this a little bit already too. But the City of Tucson does have a fairly sizable low-income population. So the City as a whole has 19.8 percent of the citizens live below the poverty level.

CHMN STAFFORD: How is that poverty level defined for the City of Tucson?

MR. BRYNER: I'm going to have to research that.

CHMN STAFFORD: I mean, I'm interested to know. You know, what are we talking here?

Is it X dollars for a family of four?

Y dollars for individual?

What's the -- what are we looking at?

What's the criteria?

MR. BRYNER: Can I get back to you?

CHMN STAFFORD: I just want to know if we're saying that their poverty level is greater than a percentage of Tucson as a whole, what level are we talking?

MR. BRYNER: Yeah. I'll have to look into that. I'll say we pulled this information from the U.S. census. So this is coming from the latest census data. And we mapped it based on census tract, which is the way that they report it, and we're able to kind of make it

spatial.

CHMN STAFFORD: I figured you had to. There would be no other way to make the claim unless you did that analysis, so --

MR. BRYNER: I don't know what the threshold is.

CHMN STAFFORD: Right. Right. If you knew off the top of your heard, that would be quite impressive.

MR. BRYNER: Sorry. I'll work on that for next time.

But as you can see on the screen, this black crosshatch represents the areas within the study area that are -- have a population -- so the way we measured it for this was if the population within that area exceeded the 19.8 percent threshold, then we said, all right, that's a level that's -- has a greater population below the poverty level than the City as a whole, and so we labeled that as a low-income area.

And you can see almost the entirety of where Route B crosses would be considered a lower income area based on that definition with the exception of a little bit just to the south of Grant Road.

CHMN STAFFORD: So not where the casino's going?

MR. BRYNER: Not where the casino's going.

And even when you look at this whole area, until you get to the east side of Campbell Avenue, you really don't get out of this lower income area.

And so, I guess, based on that, we felt like we don't really have a disparate impact because the entire area is lower income, so we're not targeting one area over another, I guess.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: The University of Arizona is lower income?

MR. BRYNER: So this is just a theory. So students don't typically make a lot of money. At least I know I did not make a lot of money as a student.

You do have a lot of students living in this area, and so the census data is based off of residents of the area, not necessarily homeowners. And so you may have a lot of people that own buildings within this area, but they don't occupy them. But those who occupy them are lower income.

And it's also done by census tract, so it's generalized. Within any of these areas you could have pockets that are not low income at all, and you could have areas in the areas that are not marked as low income

that do have low-income populations.

MEMBER GOLD: Why are we concerned about income levels?

Do lower income people have more or less rights than median income or higher income?

I mean, why were you -- did you even do this?

MR. BRYNER: So the purpose was a concern that -- and I think this stems back into the history of the project -- that when we were -- you know, in the initial -- the initial project we were looking at a route down Campbell. And when the Gateway Corridor Zone came up, then it was where do you go?

And so the routes that we looked at pushed the line over into lower income areas. And so when we restarted the process, I think there were a lot of sensitivities that, hey, the folks that are more affluent in the less -- in the more affluent areas, they get the break at the expense of everyone else.

So they wanted to make sure that, hey, we didn't just push it into lower income areas to keep it out of the other areas.

MEMBER GOLD: So the areas east of Campbell are higher income, west of Campbell are lower income?

MR. BRYNER: Based on the census data.

MEMBER GOLD: And why didn't you just go straight up Campbell?

MR. BRYNER: I'll let you make your own decision on that. We do have a Campbell route included in the application.

MEMBER GOLD: Thank you.

CHMN STAFFORD: And Campbell is part of the Gateway Corridor Zone; right?

Which the entire stretch of that line the City says that had to be underground to run parallel to that road.

MEMBER GOLD: Oh, okay. I saw that, yeah, on that other map. Gotcha. Gotcha. Thank you.

CHMN STAFFORD: All right. We've been going about 90 minutes now. I think we'll take a ten-minute recess and come back.

And I think you're going to be moving on to a different route now?

MR. BRYNER: I'll go to the second half of our preferred route.

CHMN STAFFORD: Okay. All right. Excellent.

MS. GRABEL: Well, actually Mr. Robinson still needs to discuss the constructability of this line.

CHMN STAFFORD: Okay. All right. With

that, we are in recess.

(Recess from 3:08 p.m. to 3:32 p.m.)

CHMN STAFFORD: Let's go back on the record.

Mr. Robinson, I believe you were going to go through the engineering route selection criteria.

MR. ROBINSON: That's correct, Chair Stafford, thank you.

Thank you. So I wanted to spend a minute and talk to you about some of the things that we consider while we're doing an engineering assessment on whether we can build a power line along the route or whether we can't.

Mr. Bryner talked about the back line lots between the alleyway on Adams Street and Lee that has -- currently has a 46kV line that goes along that back alleyway. And he referred to that area as not having enough room to build a 138 transmission line through there.

So we wanted to go through and talk about what criteria we look at.

First, we look for the physical space for the line to be located along the route selection. Our major roads are preferred because they have wider -- wider areas and the building setbacks are increased.

We also assess whether we have NESC code clearance requirements and whether those requirements can be met. Those requirements include avoiding buildings, signs, streetlights, and traffic signals.

We also review any known underground conflicts. Things like sewer lines, major water lines, and some of our own electrical facilities and other utilities.

In addition to that, we try to use road right-of-way where possible to take advantage of the franchise agreements that we have in place for our rate case -- or our ratepayers.

From a physical space perspective, we also look at all major intersections and evaluate those intersections to make sure we can either go over, under or around all the facilities that are taking place there.

We limit the use of residential areas because the roads are narrower and the building setbacks are shorter. So the physical structures are closer to those roadsides, and it's harder to -- not impossible -- but nor difficult to engineer facilities.

One of the ways we can minimize that impact is to have a little bit shorter span so we don't have as much conductor blowout.

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BY MS. HILL:

Q. Mr. Robinson, may I interrupt you for a second?

A. (Mr. Robinson) Sure.

Q. Thank you. Mr. Robinson, could you clarify two things, please, for the committee, two terms that you used. The first is NESC code clearance, and what is NESC code. And then the second question is could you just briefly discuss what blowout is.

A. (Mr. Robinson) Sure. NESC is an acronym that stands for the National Electrical Safety Code. It's what governs the design and implementation, operational use of electrical facilities.

So in addition, blowout is a condition that we have to engineer to associated within the NESC code, which is the position of the conductor under the wind-loading conditions that moves the conductor out of its normal vertical position when it is sitting idle with no wind on it.

So that blowout condition is the position that conductor goes to under those wind loads.

Q. Thank you, Mr. Robinson. And does blowout have any connection to some of the questions that were asked earlier by perhaps Member Hill about advanced conductors or other things that prevented sway or sag?

A. (Mr. Robinson) Yes. So with advanced

conductors, as I had talked about before, strung at a tighter tension with less sag, they would blow out in a shorter distance than what our normal ACSS conductor would blow out at.

Q. Okay. Thank you very much. And so, Mr. Robinson, did you review all of these routes for buildability -- I just said buildability, which I'm not sure is a word, so we're going to call it constructability?

A. (Mr. Robinson) I reviewed all these routes with my engineers, and they did detailed evaluations of all of these routes.

Q. Could you tell the Committee about the constructability of Route B?

A. (Mr. Robinson) I will. I believe that that's in a slide in the future if that's okay.

Q. Of course.

A. (Mr. Robinson) Correct. Yeah. So one of the additional engineering concerns for constructability are we try to utilize existing lines. The proposed -- the locations where they can be used, and we try to collocate facilities on common structures where possible.

In these routes selections you'll see commonly where we relocate distribution underground to provide collocated opportunities for our 46 and 138 on the same

structure.

We also consider what our special permit requirements are with ADOT and UPRR for construction permit crossings and requirements for additional clearance in those areas. And floodplain considerations for the route selections that we went through.

In addition to that, we discuss and consider construction and maintenance activities. We want to make sure that all of these structures have access to them that we can get our equipment to. Those areas in storm-type conditions to where we can restore and do regular maintenance as needed over the life cycle of these lines.

And we talk about and consider what traffic road closures and impacts on traffic would be during construction and also potentially during maintenance activities.

So in order to be a little bit brief in the future, I want to refer the members and the chairperson to the placemat in front of you.

Routes A, B, C, and D are the potential routes from DeMoss Petrie to Vine Substation. And you can see that all four routes have a common path from DMP to Stone Avenue.

So there's some common design considerations

that I will not repeat as we go through these route descriptions. But if you'd like to discuss them in the future on some other routes, I'd be happy to talk about more of those details.

But you can see from where our line at Flowing Wells and Grant Road, which is right -- okay. Flowing Wells and Grant Road, that intersection, we rebuild the existing distribution line to 15th underground in order to give us space in this corridor.

Common in that corridor is also a 46kV line that we will relocate and build common double circuit structures from Flowing Wells and Grant to 15th Avenue. That 46 line at 15th Avenue turns and heads to the north. So it no longer becomes an impact to the project.

Also common to this route from 11th Avenue over to Park Avenue is an existing 46 line on the south side of the road with distribution underbuild.

The plan is to put that distribution underbuild underground and evaluate the 46 structures to the degree possible and reuse those existing 46 structures as 138 structures in a single circuit configuration, because that 46 system will be abandoned once Vine Substation is in line and we have alternate energy sources to keep U of A Med -- U of A Med Substation in service while we're doing this construction.

So our plan would be to build -- rebuild this line and utilize the existing structures along the south side of Grant all the way to Park where possible, and only replace required structures along that pathway.

At that point, the line turns and heads south along Park Avenue down to Grant Avenue. And we would rebuild the distribution line and put it underground and locate the 138 line to the west side of Park Avenue.

As noted before, Park Avenue isn't a full width road in there. It's an arterial road. And so we'll locate the circuit of 138 to the east side of that structure to limit the impact for aerial easement needs on private property owners going along Park Avenue.

At that point we'll turn and head to the east on Adams Street, and we've already discussed some of the aerial impacts and the visual impacts along Adams Street that Clark has covered in his renditions.

I do want to speak for a minute about some of the potential collocations of the route combinations that can occur.

So along Route B, if Route 2 is selected, there's a common area that would be double circuit from Vine up to the Vine Substation. This short section would be double circuit if combination B-2 was selected.

For routes 3, 4, and 5, there would be a double

circuit section from Park and Adams along Adams Street and then turn north on Vine into the Vine Substation. Those would all be double circuit towers if those route selections were made.

And then, finally, if Route 6 were selected along with B, there would be a common line built from Stone and Grant all the way to Park in Route 6 as a double circuit and Route 6 could continue further to the east along Grant in the future.

And those are the only comments that I have about route selection B.

CHMN STAFFORD: I'm confused. I thought all the routes on this section were letters, not numbers.

MR. ROBINSON: They are. So the letter or the number combinations that we're talking about are the routes that would go from Vine to Kino.

CHMN STAFFORD: Okay. Okay.

MR. ROBINSON: All right.

BY MS. HILL:

Q. And Mr. Robinson, you used the word abandoned in relation to some of the 46kV along Grant Road. Can you just clarify that abandoned means retired and removed?

A. (Mr. Robinson) Yes, that is correct. Abandoned does mean retired and removed. Oftentimes in underground facilities if we abandon we'll abandon in place, but

these will be removed.

Q. Okay. Thank you very much.

MEMBER KRYDER: Mr. Chair -- oh, I'm sorry. Go ahead.

MEMBER HILL: No, Mr. Kryder.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Question on that, Mr. Robinson. You talked about here, we see in the slide above us, your 63 that three and -- well, some major portion of this 46kV is going to be undergrounded. Did I get that right? Some of the existing overhead is going to be undergrounded?

MR. ROBINSON: So that voltage that would be undergrounded is distribution voltage at 13.8.

MEMBER KRYDER: Oh.

MR. ROBINSON: None of the 46kV will be undergrounded. It will be abandoned and removed.

MEMBER KRYDER: Okay. So it's distribution that was undergrounded, not the 46kV. Thank you very much. I missed that.

MR. ROBINSON: That's correct.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I have a curiosity question or one that I just feel a little embarrassed to even ask.

But I've been thinking about this, trying to visualize how the distribution undergrounding works. And so if you're undergrounding along my street a distribution line --

MR. ROBINSON: Yes.

MEMBER HILL: -- like my house currently connects to a -- connects to a pole.

MR. ROBINSON: Yes.

MEMBER HILL: Will I have a cost for bringing the line into my home if it's underground? Will I incur a cost for that, or how -- how is that going to work. I'm visualizing the street and what that looks like.

MR. ROBINSON: Yeah. Member Hill, that is a really good question. So your question is will your service line, which is currently overhead, have a cost to put underground to you?

MEMBER HILL: Into my home.

MR. ROBINSON: If our line is dist -- is put underground --

MEMBER HILL: Yes.

MR. ROBINSON: -- right? Yes. The way our current rates and rules are applied, that cost to put up a new underground service panel and to run from the underground service panel to our connection point would

be borne by the customer. That's correct.

MEMBER HILL: So in the road, or along the corridors where you are now taking aboveground distribution and putting it underground, each homeowner will have to incur a cost to connect to that underground trenched line?

MR. ROBINSON: No. Each owner can decide to stay with their overhead service, and in that situation we would run the underground cable over to the overhead service pole and come up the pole, and there they would be served the same way they are currently being served with an overhead service.

MS. HILL: Member Hill, maybe I can ask an additional clarifying question that will help.

MEMBER HILL: Please.

BY MS. HILL:

Q. Okay. Mr. Robinson, and bearing in mind not many of us really think about how the power gets from the transmission line to our homes.

MEMBER HILL: Apparently the Hills do.

MS. HILL: Well, we do, and Member Hill, I don't think it's a silly question that you should be embarrassed to ask, because I doubt -- I doubt that most people who don't do what we do have any idea.

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BY MS. HILL:

Q. So, Mr. Robinson, could you give a very brief explanation about if we have 46kV, say, how it gets from there to distribution and then at what point it drops into the home?

A. (Mr. Robinson) Sure. So in that area that's served with 46 sub transmission power, it goes to a substation where there are transformers in this area that transform 46kV to 4kV, and that distribution system then goes out through the community.

Near homes, commercial areas, there are transformers, smaller transformers, usually pole mounted, that transform that 4kV to usable voltage, 120, 240 which is what our residential customers use.

That voltage then goes via secondary or service wire to the customer. Usually overhead. In some areas underground.

In these areas they are mostly overhead services where we would intercept that connection at the overhead service point from an underground source now, instead of an overhead source.

MEMBER HILL: Okay.

BY MS. HILL:

Q. And so Mr. Robinson, though, homeowners individually could elect to incur the cost of it on their

own to continue that underground to their homes; is that correct?

A. (Mr. Robinson) That's correct.

Q. But it is not going to be a mandatory expense that any of them have.

A. (Mr. Robinson) That's correct. Yeah, that -- that -- I'm sorry.

CHMN STAFFORD: Member Gold, do you have a question?

MEMBER GOLD: I do. So you're going from high voltage to distribution voltage, from distribution voltage to another pole that connects to the house. Is that correct?

MR. ROBINSON: That is correct. From a service connection, most areas in these neighborhoods have overhead services.

MEMBER GOLD: So those overhead services are going to remain, those poles are still going to be there.

MR. ROBINSON: At the individual houses unless the customer elects to underground their service, they will remain.

MEMBER GOLD: No, what I'm asking is right now are there individual poles for individual houses or is there one pole for a whole bunch of houses, another

pole for a whole bunch of houses? How many poles per house? Or how many houses per pole?

MR. ROBINSON: So that secondary network is usually one pole for a house.

MEMBER GOLD: Okay.

MR. ROBINSON: Or one service wire per house.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Continuing that a little bit, can you give me, Mr. Robinson, back of the envelope, I suspect it's a charge made by the number of feet involved, but I'd like some clarification.

What kind of money am I talking about if I have one of these houses that it comes to a service pole and comes to a mast on my roof, and I say no, let's underground this bad boy. How much am I looking at?

MR. ROBINSON: Member Kryder, that's a great question and I'm going to need to defer that. I can find that information out for you from a general perspective.

I will answer in this way; right? The underground trenching to get the conduit from the service point to the house would be part of the customer's responsibility.

So that could vary depending on which contractor or how you choose to put that in. But I'll get an estimate and I'll also get a fee perspective from us as a company to transition that service.

MEMBER KRYDER: That would be great. Does it require -- does it typically require changing the panels? Or just the connection from the pole to the house?

MR. ROBINSON: To do it correctly, it usually will require the replacement of the service entrance panel on the house.

MEMBER KRYDER: Okay. That's just what I was looking for.

CHMN STAFFORD: Thank you, Member Kryder. Ms. Hill?

BY MS. HILL:

Q. Mr. Bryner, before we proceed with the next route, I just want to take you back to the testimony earlier in this panel about the historic districts.

A. (Mr. Bryner) Okay.

Q. Okay. So do you recall talking to the Committee about Exhibit E4?

A. (Mr. Bryner) Yes.

Q. Okay. And do you recall the discussion about individual listed properties and the impacts on

individual listed properties?

A. (Mr. Bryner) Yes, we were talking about if -- well, the impact of the routes on the designation of -- as a historic district and also the specific impact on individually listed properties.

Q. Right. And at the break were you able to determine which portion of the very large E4 discusses those?

A. (Mr. Bryner) Yes.

Q. All right. And do you recall the page numbers off the top of your head or would you like me to refresh your recollection?

A. (Mr. Bryner) I believe it was on page 5 of Exhibit E3 or E4. Can you help me out with that?

Q. It's E4.

A. (Mr. Bryner) E4, which is our historic district analysis.

CHMN STAFFORD: Which is attached to TEP-1, the application.

MR. BRYNER: Correct. Which you can't miss even if you're blind. So on page 5 of that report, it talks about the effect of any of our routes on the designation as historic districts. And on page 6 of that it talks about the individual listed properties.

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BY MS. HILL:

Q. Thank you. Okay. Everybody can put TEP-1 away again. Do your stretches first.

Mr. Bryner, I believe that we are ready to move on to the second half of our preferred route, which is Route 4 from Vine to Kino. Is that correct?

A. (Mr. Bryner) Yes. That's correct.

Q. Okay. Could you please proceed with describing this route to the Committee?

A. (Mr. Bryner) All right. So on to the second half of our preferred route, so this is Route 4. I'll first start off with the screen on the right.

Just kind of go over some of the stats for the route. And I'll also refer to you just as we're going through, all of these routes, your placemat does have a matrix that includes some of these summary statistics, but then it also, it doesn't have those specific mileage and different things, but it includes all the factors we were looking at.

So that's a good place to look. Or if you're kind of wanting an overall summary, not to skip forward in the presentation but if you go to slides 200 and 201 they have a summary of all this, so if you're wanting to compare one route side by side with another.

I believe I got these slide numbers correct.

So let's start off, though, just talking about this route. So Route 4 would cost about $12.8 million. Again, that cost is inclusive of not just the transmission line and the right-of-way, but also any of those associated costs to place any of that distribution infrastructure underground.

So it's -- that's when you see five miles, it's a little higher than that $2 million per mile average we discussed earlier.

So this route would go through a little over a mile of residential area. Most of which would be considered low income. About a half a mile through historic districts and again this route does utilize a lot of overhead utility corridors, not quite as much as Route B did. But it's 66 percent.

There would be an additional 2.3 circuit miles of existing distribution lines that would be moved underground, and 7.3 miles of communication wires that would be moved underground or relocated.

Just discussing a quick overview of comments that we received specific to this route, so in opposition to this route, we received six specific comments. Summarized as shown on the pie chart.

But just to go over those quickly, some about the route, some concerns about the route running through

neighborhoods, others, and this would have been impacts on historic landmarks, so that would have been some of those individually listed properties.

Impacts on transit, vehicle or pedestrian, and then the belief that the roadway was too narrow to accommodate the line.

And then we received eight comments in support of the route. If you'll notice, the largest chunk of that pie chart is that they said it has the least impact on neighborhoods, whereas in opposition somebody felt like it -- they were opposed to it because it went through neighborhoods.

And I just illustrate that just to point out the challenge that I know members of the Committee are aware of, but a lot of these impacts or perceived impacts, they're based on perspective, and where you're coming from, where your area of interest is, various things.

And so it's just the challenge that we face as we try to identify the best routes to bring to the Committee for your decision, and balancing the various environmental factors together with the both real and perceived impacts of the public.

So it's a bit of a challenge. As you see some of these things you might see comments in opposition and in favor that are the same.

Let's see. Let's start going through the overall route and just describing what's going on with it. So we're going back to the left screen, Slide 66.

Okay. So we're starting at Vine Substation. So we already talked about it going through Adams, so we know Adams is a residential street. Then it goes down Park. So on Park there are some -- no 46kV in this case, but we do have some distribution poles that go down Park in this area, and we do go past one of those individually listed properties which is the University Heights Elementary School.

And I believe we have a photo simulation.

Okay. So, yeah, so looking from our key observation point 42, this is located on Park Avenue looking south at Mabel Street, this is just barely south of the simulation we looked at before looking down Adams Street.

So now we're looking down Park. And the building you see on the right side of the photo is the University Heights Elementary School, so it's no longer an elementary school, it now serves as student housing.

But Park Avenue we've discussed is a collector road. And as I mentioned before we do have some existing distribution lines along this today. So we would plan to place all of those wires underground and relocate the

communication wires.

Q. And Mr. Bryner, there are also -- there's a pole, it appears, in the current conditions photo that is not present in the simulated condition that is on the far left side of the current condition. Is that pole going to be removed?

A. (Mr. Bryner) I assume you're talking about this pole on the very far left?

Q. That's correct.

A. (Mr. Bryner) So that's -- I would say that was an oversight in our visual simulation. That's a span guy wire, so it's supporting a line that goes to the east from here and that line would not be placed underground. So that pole would still be there.

Q. Okay. And then otherwise, I see a difference in the pole that's in the far distance there on the current condition versus the one that's in the far distance on the visual -- in the simulated condition. Are we replacing -- yes, there you go. See --

A. (Mr. Bryner) So that's a distribution pole that would be removed with the wires moved underground. And then we would -- in roughly the same location we would have a new 138kV structure.

Q. Okay. And otherwise, are there any other poles and wires that are going to be removed that you haven't

spoken about?

A. (Mr. Bryner) Can't quite tell with the palm trees. I think that would be it.

Q. Thank you.

CHMN STAFFORD: Yeah, because it looks like there's another pole right next to those palm trees, is that staying or going?

MR. ROBINSON: I'm not sure. That is an ally arm pole that would be removed.

CHMN STAFFORD: Okay.

MR. BRYNER: So that would be removed.

CHMN STAFFORD: What is that one?

MR. ROBINSON: It's a distribution pole with the distribution on an ally arm instead of a normal crossarm. That's to allow the wire to be offset on to one side of the pole instead of how it normally spans and is equally balanced.

CHMN STAFFORD: And would that be one removed as part of this project?

MR. ROBINSON: It would be, yes.

CHMN STAFFORD: Okay. Okay. So those are two poles, and the one of them is taken out and one of them wasn't and then pole on the far left would still be there?

MR. ROBINSON: Can I add a little bit of

that?

So under this condition, right, and as we're rebuilding this distribution system in this area, even though that pole, this pole right here, would still be here, either -- either it would be a riser pole which would be a self-supporting structure where the guy wires are now removed and there's going to be an underground riser coming up to feed that distribution circuit overhead going to the east.

Or it would be undergrounded one additional span off from the picture and go up a riser pole at that location.

But the plan would be to probably replace this pole, that detailed design is not complete yet, with a riser pole and eliminate these down guys. This pole would eliminate completely and the distribution pole in the foreground would also go away because it's undergrounded.

CHMN STAFFORD: Thank you.

MR. BRYNER: All right. So moving on. The route at this point, so at this point the route then -- that was weird. Sorry. I'm thrown off by the technology here.

Okay. So the route would leave the West University neighborhood and enter Speedway. And

Speedway, I think it is the first time we've talked about Speedway at all.

Speedway is, again, it's a major arterial road. Speedway doesn't have any overhead utilities on it today. And it's one of the main entryways into the university area campus. It's also a roadway that has some fairly narrow setbacks.

We wouldn't be on Speedway for this route for very long, about one span is all, and then we would turn down Euclid.

Euclid Avenue is also an arterial road and that's what you're seeing in the photo simulation here is Euclid. It's essentially the western edge of the University of Arizona campus so largely on the western -- sorry -- on the eastern side of the roadway you have institutional uses associated with the university, and on the west side you have a mixture of commercial uses, some apartment buildings, and some residential uses.

BY MS. HILL:

Q. Mr. Bryner, before you move on, is Speedway a Gateway Corridor?

A. (Mr. Bryner) Speedway is not a Gateway Corridor.

Q. Okay. Thank you. And you also said one span. Can you just remind the Committee how long -- how far one

span is?

A. (Mr. Bryner) So one span, our typical is around 600 feet.

Q. Thank you.

A. (Mr. Bryner) We can go shorter or longer depending on what on what Mr. Robinson's group dictates.

Let's see. I do want to point out I guess on this simulation here you'll notice there are no overhead utilities on this stretch of Euclid.

But going back to the map, you'll see dotted lines, I know our little key observation point thing covers a lot of them up, but the majority of Euclid does have overhead utilities and you'll see that on a couple of other simulations we have.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Could you speak -- do I see a distribution line going across to that house from above the sidewalk and across the street? Or am I making up things? It looks like there are three distribution lines that'll go across. Is that true?

MR. BRYNER: You're correct. You're not seeing things there. And I don't know if Mr. Robinson wants to elaborate on that.

MR. ROBINSON: And so in the scenarios that

we have where distribution lines are crossing our proposed facilities at a 90-degree angle, we are not anticipating that we would underground those facilities. Only when there is a pole that is in alignment with the corridor where we're building in.

So under that scenario, if there's a crossing distribution line and there's a pole that is in that corridor, we would underground to the pole on the east and on the west on the perpendicular sides and dip the distribution under where we're building the transmission line and it's in conflict with our proposed route.

MEMBER KRYDER: Thank you very much.

MR. BRYNER: So moving a little bit further south along Euclid Avenue, this key observation point comes from a location on University Boulevard right near the entrance to the university and they call this Main Gate.

In both the current and the simulated condition you can see the overhead wires. Those are not associated with, those are not utility infrastructure nor are they associated with this line, but those are wires associated with the City of Tucson's modern streetcar. So those would all remain. But you can see in the simulation our 138kV pole.

CHMN STAFFORD: This is KOP 46?

MR. BRYNER: KOP 46, correct.

BY MS. HILL:

Q. Mr. Bryner, so do you recall, is this section that we're looking down now, is this within the University Area Plan?

A. (Mr. Bryner) This is within the University Area Plan, correct.

Q. And do you recall when the modern streetcar was constructed?

A. (Mr. Bryner) I'll bet you Mr. Lusk can. It's probably around 2011, '12.

Q. Okay. Thank you.

A. (Mr. Bryner) Now, this is Euclid Avenue now looking north at 6th Street. So this 6th Street is essentially the southern edge of the university campus. This stretch, we do have existing distribution running down Euclid with communications.

And right here, this is actually a span guy supporting a 46kV structure that runs down 6th Street. So we would remove that infrastructure, all of the wires associated with the distribution. That 46kV line, that will be able to be retired as part of this project. And so that would be removed. And we would be left with a single pole line running down Euclid.

Again, in this area you can see some of the university buildings there on the right side of the photo, with some of the residential uses on the left or west side.

CHMN STAFFORD: And this is KOP 47?

MR. BRYNER: Correct.

BY MS. HILL:

Q. Mr. Bryner, I'm sorry, could you explain -- could you tell us how many poles we see removed in this simulated condition as compared to the current condition?

A. (Mr. Bryner) I'm going to try. So you've got one pole, two poles, three poles, four poles, five poles, then it gets hazy for me. Five-plus poles.

Q. And how many of those are actually going to be removed?

A. (Mr. Bryner) Every one of those poles will be removed.

Q. Okay. And so I see one pole in the -- close to us, and then is there another one further down?

A. (Mr. Bryner) So, yeah, you've got this first pole in the simulated condition that's located in roughly the same location as the pole in the current condition.

And then beyond that, you've got a second, a third, and I think I can see a fourth pole, but that's well beyond the area that I identified for the five poles

in the current condition.

Q. Okay. So what, we have one pole for every three or four poles in the simulated condition, one pole, one transmission pole for 138kV versus four, three or four distributions?

A. (Mr. Bryner) Yeah, if you look at the current condition right around here, this is the fourth pole down and that's roughly the same location as this second 138kV pole.

Q. Thank you. And then, I'm sorry, I'm just not clear. I thought you said we were going to see one line, one wire. I see two or three. Did I mishear you?

A. (Mr. Bryner) So our circuits have three circuits -- or, sorry, three wires make up a circuit and then you have an overhead shield wire, so you'll have four wires in the air associated with one of our circuits.

And I'm just noticing this now, but we do have some remnant, I'll call them ghost wires here on our simulated conditions associated with that existing 46kV line that would be removed.

Q. Thank you.

A. (Mr. Bryner) Before I jump to that next key observation point, I do want to point out that throughout this whole stretch where we've talked on Euclid, we're

within the West University neighborhood.

And we'll talk about it in just a second. But the West University neighborhood is within the historic preservation zone, and I believe there are a number of folks that commented last night that were from that neighborhood.

But at this point, south of 6th Street we now enter into the Pie Allen neighborhood. And it's also a historic district. We'll see that here in a second.

But the land uses do change quite a bit from this point into more residential land uses. On the east side and on the west side you have Tucson High School and a couple of commercial businesses.

And you're seeing some of that in key observation point 52, which is shown on the right screen. So within this you're seeing some of the single family residential areas. This is, again this is looking north, so that's on the east side of the road.

And this does have distribution running on both side of the street here, so all that infrastructure on either side of the street would be removed as part of this project if route -- sorry, if route 4 were selected.

MR. ROBINSON: And this would be a good simulation to point out that perpendicular crossing situation, Member Kryder, that you talked about.

Can I see that for just a minute?

As you can see, the silver wire here that is in this rendering is within that corridor. And so we'll need to go one span off the photo frame this way and to the structure just off from the photo frame to the other side of the road and make those riser poles to clear up this corridor.

MEMBER KRYDER: I see. Thank you.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Member Hill.

MEMBER HILL: So none of the houses along this street are pulling down electricity from those distribution poles? Is that -- that's a question. Sorry.

MR. BRYNER: So, no, they are.

MR. ROBINSON: All of them are.

MEMBER HILL: When you underground their service how does that affect them?

MR. BRYNER: You want to take that?

MEMBER HILL: When you underground those poles, will there still be things aboveground to --

MR. ROBINSON: The riser pole will still be aboveground.

MEMBER HILL: Okay. So there -- so this looks like there are no other poles except the lights and

138kV, but there will still be riser pole here, service poles?

MR. ROBINSON: We're going to be utilizing the existing service wire pole because it leaves the distribution line to a service wire pole and then goes to the attachment, the riser attachment on the house.

MEMBER HILL: Uh-huh.

MR. ROBINSON: We'll reutilize that connection point.

MEMBER HILL: Okay.

BY MS. HILL:

Q. Mr. Robinson, could you clarify where the service poles, the individual service poles are in relation to the homes?

MS. HILL: If I'm reading your question correctly, Member Hill.

MEMBER HILL: Okay. Yeah. I think if you could just clarify where those service poles are in relation to the homes, please.

A. (Mr. Robinson) So generally speaking they're somewhere on the back lot line that would go -- they're not shown. I don't see any -- oh, there is one that I see here.

So you can see here, that is a service pole that we would utilize, or if that's a secondary pole, we would

relocate that underground to the next service pole.

MEMBER HILL: Okay. So the distribution poles on the photo in the left in the current condition the distribution poles are on the left side and it looks like there's a line that crosses over to the service pole. And you're going to underground all of those distribution lines, maybe even cross the road underground and then come up?

MR. ROBINSON: That's correct. The distribution lines that are shown here would go across the street underground to the next pole and riser up that pole.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: I'm looking at the image on the right and comparing it to the image on the left when you talk to that service pole. So if you look at the service pole on the left, okay, now go to the same place on the right.

MR. ROBINSON: It's not there.

MEMBER GOLD: Half of it is there.

MR. ROBINSON: Yes.

MEMBER GOLD: What happened to the other half?

MR. ROBINSON: From a rendering

perspective, these renderings are very difficult to show all of the impacts that are anticipated to occur. And so we did our best to render what we think will accurately be without a full-on design and evaluation of what needs to be undergrounded and how we'll continue to serve our customers.

MEMBER GOLD: So that service pole is actually still going to be there unless the customer wants to underground it?

MR. ROBINSON: Unless the customer wants to convert to an underground service, that service pole would still be there, yes.

MEMBER GOLD: But how would he do that? This looks like it's hooked to the front of the house. You'd underground it to the front of the house, then, the same --

MR. ROBINSON: So what we would do is underground to the service pole and then riser up the service pole and connect to his existing overhead connection at the service pole.

MEMBER GOLD: So it would be overhead or it would be underground?

MR. ROBINSON: It would be overhead. It would be overhead from the service pole into the house. If the customer --

MEMBER GOLD: But if he wanted to underground it he could do that, too?

MR. ROBINSON: Yes, if he chose to convert his service from overhead service to underground service, and put the trenching in and updated their service panel, then we would go to an underground service to his new panel.

MEMBER GOLD: Just out of curiosity's sake, are we talking hundreds, thousands, tens of thousands of dollars to do that?

CHMN STAFFORD: I think Mr. Bryner is going to put that number together and have it for us tomorrow.

MR. BRYNER: Yeah.

MEMBER GOLD: Oh, okay.

CHMN STAFFORD: About what the cost to underground a service line from the street to your home is going to be. I think we asked about that earlier. I think that's one of Mr. Bryner's homework assignments is to come up with an estimate what it takes to underground that service job.

MEMBER GOLD: Gotcha.

MEMBER HILL: Mr. Chair, I have a follow-up question.

CHMN STAFFORD: Member Hill.

MEMBER HILL: So, first of all I really

want to compliment you on, like, really trying to address the aesthetics of all of these things, and I'm trying to follow it all.

I know you want to put the line in service by 2027. What's the project time line for removing the 19 miles of kV -- 46kV and undergrounding the distribution lines? Like, it's probably not the urgent priority of TEP to do that.

So kind of I know you want to put the new line in service, but what's the project time line for doing all the other mitigation pieces, if you will. Can you talk about that a little bit?

MR. BRYNER: Yeah, good comment.

MEMBER HILL: It may be out of place, so forgive me, but I think it will be helpful for me to understand that commitment.

MS. HILL: Mr. Chair, Member Hill, I love that question. Thank you.

MR. BRYNER: Yeah, so Member Hill, to address your question, so certainly there are some areas where we'll have to prioritize removing some of these infrastructure because it is in the way of where our route will go.

MEMBER HILL: Okay.

MR. BRYNER: In the places where it's not

in the way we expect that will take a period of, well, overall for the, you know, we talked about a lot of distribution improvements and the conversion of the distribution circuits from 4kV to 14kV, and that will be associated with replacing a lot of the old distribution infrastructure in here.

And so for all of that work we're expecting it to occur over a period of about 10 years, so from the 2027 time period we're going to start reconfiguring our circuits so that we can retire those 46kV substations, get those out of there, retire those 46kV lines and complete all that distribution work.

And in conjunction with that we would also be working on undergrounding any of these lines that we didn't have to prioritize to get out of the way for the sake of getting the transmission line up.

MEMBER HILL: Okay. That's helpful for -- because I appreciate all of the work that you're trying to do to mitigate those visual impacts, but I wanted to understand, now that I'm feeling the scope of what you guys really need to do and what you need to move, like what will citizens' time line and expectations be around the mitigation work.

Because that's what I'm kind of calling this at this point. So that's helpful. Thank you.

MR. BRYNER: Sure. Thank you for asking the question.

And it is a big project. I wish we could snap our fingers and have it done because it does, it checks the box on so many things that are priorities for us to get done, and it does -- it really cleans up a lot of this area. It will make it look a lot nicer than it looks today. And it doesn't look bad today, but it will make it look better than it does today once this is done, but it's going to take a while.

MEMBER HILL: Thank you.

MR. ROBINSON: Member Hill, can I add just a little bit of clarification --

MEMBER HILL: Absolutely.

MR. ROBINSON: -- on that transition. Right? We're transitioning from a 46kV, 4kV system to a 138, 14kV system.

Outside of the corridor where the 138 line is, we are not anticipating that we would transition any of the distribution from overhead to underground in that conversion. So what is currently overhead would remain overhead.

MEMBER HILL: I do understand that.

MR. ROBINSON: Okay.

MEMBER HILL: Yeah. Thank you.

MR. BRYNER: But, yeah, we do have at a lot of older poles and other things that will be addressed as part of that. One other thing that I'd just like to mention.

I know that we've gone into a lot of detail about the distribution lines and some of the things in the simulations that will go away, won't go away. Our intention with these visual simulations isn't to mislead anyone, the members of the Committee or the public on what's going to happen.

We were trying to represent to our best capabilities what would happen. In some cases we missed things that we shouldn't have missed, some places we removed things that we shouldn't have removed. And so I guess if you'll have a little grace with us, we're trying to represent as best we can what will happen. But without specific designs on every detail of it, it's hard to say.

So at this point we kind of leave some of the residential areas for a bit as we cross Broadway, which we've discussed Broadway is one of the Gateway Corridors. And we cross over Aviation Highway, the Union Pacific Railroad tracks, and this is all within an industrial and commercial area.

Follow down, once we cross over we actually

go to a road called Toole Avenue, which then turns back into Euclid Avenue and we follow Euclid Avenue south through an industrial area. And throughout this stretch we do have overhead utility infrastructure. Again, same thing would apply even though it's an industrial area, we would plan to relocate that underground.

And then just before we get to 36th Street we do move into a residential area. So we start off with residences just on the east side of the road, and then we have residences on both sides of the road. And this is within the South Park neighborhood.

And here is a photo in that area where you do have residences on both sides of the road. So, again, you've got existing --

CHMN STAFFORD: And this is KOP 4?

MR. BRYNER: KOP 4. Sorry. Sorry about that, Chairman.

So you've got existing distribution facilities and 46kV facilities on the east side of Euclid Avenue in this location, with quite a number of communication attachers here. It looks like about five.

MR. ROBINSON: Six.

MR. BRYNER: Six communication attachers, so all of that equipment would be relocated or moved underground. And then we would plan to put up our new

138kV line. Again, we depict it on the east of the road, it's possible that it could go on west side of the road.

I think from a staging perspective it would be much simpler for us to build it on the west side of the road so that then we can wreck out things on the east side of the road. I don't know if Mr. Robinson has any comments on that.

MR. ROBINSON: I think the detail design would need to be completed to determine exactly which side of the road is most appropriate.

CHMN STAFFORD: But the right-of-way would allow either one you're requesting; correct?

MR. BRYNER: The requested CEC corridor, yes.

CHMN STAFFORD: Okay.

MR. BRYNER: And you can see there's a pretty good setback on either side of the roadway here.

And then at this point our route turns to the east and follows 36th Street which, again -- and I forget to mention about Euclid in this area, and you can see it in the photo simulation.

North of Broadway Euclid is an arterial road. So it's a more major road. South of Aviation Highway Euclid is not an arterial road, it's more of a residential or business access road. But 36th Street,

again, is a major arterial road and we have existing infrastructure along that.

Also, one other thing I want to point out on 36th Street on the south side of the road that is the Bridges development that we talked about a little bit. I think you'll see that, too, in this.

So this is KOP, key observation point 3 that we're looking at on the right screen. So in the current condition, on the north side of the road or the right side, you do have existing residential uses.

On the south side, this is the Bridges development, so it's a mixed-use development, you can see some apartment buildings right here. You've got a lot of commercial uses going on there.

And the line you see on the south side of the road is our 138kV line that goes between the Kino and Irvington Substations. That is the first phase of the line that we're trying to complete as part of this project.

On the north side of the road are 46kV lines with distribution underbuild, and this is another area where we failed in our simulation, and we would plan to remove that infrastructure as part of this project.

So that 46kV line would be retired, the distribution lines would be placed underground. So you'd

end up just having the single line on the south side of the road because for this project we would collocate the new circuit on the same structures that have been already been built and are capable of handling a second circuit.

CHMN STAFFORD: Is that a streetlight attached to, like, a utility pole?

MR. ROBINSON: It is. Yes.

MEMBER HILL: That's not uncommon. Happens all the time.

MR. ROBINSON: Yeah, so TEP does have many, many streetlights as part of its offerings to the community and customers.

BY MS. HILL:

Q. Mr. Bryner, then if I could just point out, so just so the transmission line that you see, then, in the simulated condition is part of that Irvington to Kino line that this committee already approved, and has now been completed and is in service.

It appears to me, though, that you are adding the second circuit there in the simulated condition. Right?

A. (Mr. Bryner) That's correct. You can see in the current condition you just have the three insulators coming off on the south side or right of the pole, and in the simulated condition you have insulators and wires on

the left side of the pole.

Q. And then that follows it all the way into the Kino Substation; is that correct?

A. (Mr. Bryner) That's correct. And this same land use situation that you're seeing in the photo exists all the way to Kino Parkway, where again at Kino Parkway we would have -- Kino Parkway would be a Gateway Corridor. We would have a perpendicular crossing of that into the Kino Substation that's located immediately to the east side of that road.

Q. Thank you. So, Mr. Bryner, we're doing things a little differently than we often do. Are you prepared to go ahead and show the Committee the virtual tour for this route?

A. (Mr. Bryner) So I have a couple of other things that I guess I'd like to cover for this route before we get to that.

Q. Sounds great.

A. (Mr. Bryner) Okay. So we won't need to go into nearly as much detail on these plans and overlays and different things, but I want to make sure I cover some of the differences that occur with each route.

So we'll go through in the same order we went through for Route B, for Route 4. But, again, this route falls under the purview of the City of Tucson general

plan, Plan Tucson, and there are a number of neighborhood and area plans, again, more specific plans, that are meant to guideline these decisions within those areas.

Of all of these neighborhood and area plans pertinent to Route 4, the only one that makes mention of anything on the location of utilities is the University Area Plan, which, again, we discussed that in some detail before.

But I do want to mention as well that we believe that Route 4 would be consistent with the University Area Plan because it furthers the purpose of that plan by removing, having a net reduction of six miles of overhead utilities and it would remove 53 poles within that plan area. So when you combine that with Route B, which is the north half of our preferred route, it would have a net reduction of 102 poles and 9.6 miles of overhead utilities.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: Mr. Bryner, when we talked about the mitigation pieces and the time line of roughly ten years to kind of complete all that work, is the University District an area that you would consider kind of a priority for mitigating sooner rather than later?

We talked about you guys would have to do a

bit of prioritizing, but given the area plan or the neighborhood plan would that be a priority area for you guys?

MR. BRYNER: I would -- I don't know if Mr. Robinson has a --

MEMBER HILL: Or maybe -- and it's okay if you say our priorities will be around operational things rather than the area plans or aesthetics. But I'm just kind of curious given the City's planning, like how are you guys treating it in terms of a priority.

MR. BRYNER: I'll say one thing before Mr. Robinson, just, you know, we looked at things going on around the Vine Substation. We don't want to have kind of ugly situations persist any longer than they need to. We want to get in, get out, and get things done as quickly as possible.

Maybe Mr. Robinson will add to that.

MR. ROBINSON: Yeah, I would say, Member Hill, we have an asset management team and a planning department that try to balance out the system reinforcement needs, and these voltage conversions are part of those system reinforcement needs that would be best to answer that question.

MEMBER HILL: Okay.

MR. ROBINSON: We do want to prioritize

that, but it's also a balance of what our overall system needs.

MEMBER HILL: Okay. Thank you.

MR. BRYNER: I think I already covered the Gateway Corridor zones that we would perpendicularly cross as we were going through the route, but we do have the Broadway Boulevard Gateway Corridor and the Kino Parkway Gateway Corridor that we would perpendicularly cross as part of Route 4.

As far as other overlay zones are concerned, so I mentioned we've talked about the Jefferson Park and Feldman's neighborhood historic preservation zones.

This route would go through part of the West University historic preservation zone, and it would go -- and all three of those overlay zones, we would not be inconsistent with those.

And we would go through, skirt the edge of the downtown archeological sensitivity zone. So, again, there would likely be some requirements to have a professional archeologist present to monitor any of your ground disturbing activities.

And then historic districts. This route crosses through four different historic districts. So it's adjacent to the Jefferson Park, but then it crosses

adjacent to Feldman's and through West University and through Pie Allen and adjacent to Iron Horse Expansion Historic District.

But as we discussed before, and this applies for all of our routes, none would have any impact on the designation of those historic districts.

With respect to the class 1 cultural resource study that we had conducted, we do cross, or Route 4 is within the vicinity of eight different sites. Three of those are eligible for listing on the National Register of Historic Places. Five were either not eligible or have yet to be evaluated. And of those, one site was recommended that we have a monitor present.

And the last slide that I want to talk to you on this route is just the low-income areas. So you can, again, see as we see more of the -- of our study area going south, again, a lot of lower income areas.

This route does avoid some of those through the industrial area, south of Aviation it's not considered lower income. But then goes back into lower income, and more importantly lower income residential area.

That's with the slide on -- slide 65 on the right screen, that's why we report it as low-income residential, because these low-income areas, they extend

into industrial and commercial areas, which it's not really fair to characterize that as you're not affecting a person there. So we wanted to distinguish that difference.

But this route, again, crosses through a lot, but most of the area is lower income.

MR. ROBINSON: So Clark Bryner's done a really good job of discussing some of the areas of distribution that will be undergrounded as part of this route selection.

So I'm not going to repeat that, but I am going to emphasize that as we talked about in your design criteria that we try to utilize and collocate our transmission lines where possible, and so when we installed the line from Irvington to Kino Substation, we designed that as a double circle capable structure so we utilize that location without additional impact to our customers and the communities.

And that line path is right here along Park that's coming up to Kino, so that intersection point from here into Kino Substation would be double circuited on existing facilities, and then start on its own facility going to the north up through here.

One of the other things that I want to point out is where I just had any cursor and that's on

the crossing from the railroad tracks and the Aviation Parkway area right here.

Our application indicates that our tallest structures would be possibly 130 feet tall without going through detailed engineering. Crossing Aviation and the additional elevated bridgeways and the railroad tracks, we anticipate that this is the location that these tallest structures would need to be utilized for a few spans in each direction as we get up to that possible 130-feet height and then step back down to our normal 75 to 85-foot-tall structures heading up along Euclid.

The other thing I wanted to point out is that along Euclid, the setbacks are narrow as you saw in the renderings, and the U of A building setbacks on the east side of Euclid are very close to street side and that does not give us room to put the 138 line on the east side of the Euclid alignment, and we would then have to then be on the west side, which is the residential side of street which would possibly require us to pick up a little bit of aerial overhead easement from individual customers along that area.

And then finally, just a commonality from our route selection you can see common to Route 4 or Route B, Adams Street into Vine is a double circuit common overlap. And then if Route C is selected by the

Committee, there's a common overlap here at Speedway over to Park, north on Park into Adams, and up into Vine.

MR. BRYNER: Now we're ready for our visual tour if we can.

MS. HILL: Thank you. While that is being loaded and brought up here, though --

CHMN STAFFORD: How long is the virtual tour?

MS. HILL: What is it, ten minutes?

MR. BRYNER: So I think we're planning on playing it in double speed, not because it's boring or we want to gloss over things but we recorded it fairly slow. And so I want to keep your attention.

MS. HILL: So is that ten minutes?

MR. BRYNER: Probably five, six minutes.

MS. HILL: That's what I thought. So, and then Mr. Chair, I anticipate we would maybe close for the day.

CHMN STAFFORD: Yes, you anticipate correctly. I think after the virtual tour that would be an excellent stopping place to pick up from there tomorrow morning at nine, once you complete the tour.

MS. HILL: Okay. Thank you.

But quickly before we begin the virtual tour, could you turn to Exhibit TEP-12, and Committee

members, you each have a flash drive containing the virtual tour that we're about to show.

And Mr. Bryner, while you're bringing that up could you just -- well, I guess you need to be near your mic for this. Will you lift the exhibits up?

MEMBER HILL: Mr. Chair.

MS. HILL: Oh, I'm sorry.

CHMN STAFFORD: Member Hill.

MEMBER HILL: I do have a question not related to the visual tour, so maybe I'll ask my question then we can go to visual tour. Forgive me.

Yesterday we had a little bit of conversation about the railroad. And the crossing that you propose in your preferred route, has that been approved by the railroad company at this point?

MR. BRYNER: So the crossing has not been approved but it would meet all -- so the railroad puts out design guidelines --

MEMBER HILL: I understand that, yeah.

MR. BRYNER: -- and so it would meet their design guidelines for perpendicular crossing and having the poles set back far enough. So we're not concerned about that. It just takes time.

MEMBER HILL: Okay.

CHMN STAFFORD: But --

MEMBER HILL: Yesterday there was a discussion about how if we did not select the preferred route and we chose a different route, then you would want an alternative because the railroad was -- you didn't have confirmation that the railroad crossing was going to be okay. Am I recalling that correctly?

CHMN STAFFORD: Well, I have written down that they said that Routes 5 and 6 would need railroad authority, so there's some additional hurdles to overcome with the railroad if Routes 5 or 6 are chosen. Correct?

MEMBER HILL: Thank you. Thank you for clarifying that, Mr. Chair.

MR. BRYNER: That is correct.

MEMBER HILL: So my question is does the preferred route have approval for a crossing in a way that 5 and 6 do not?

MR. BRYNER: I think Mr. Robinson wants to clarify this.

MR. ROBINSON: Yeah. The difference between Routes 5 and 6 and Route 4 are both 5 and 6 and 4 cross the railroad. But on the north side of the railroad Routes 5 and 6 parallel the railroad along Aviation Highway for quite a period of time. And that requires additional authorizations and permitting processes through the railroad.

MEMBER HILL: Okay. All right. That's helpful. Thank you.

BY MS. HILL:

Q. All right. So Mr. Bryner, do you have TEP-12 in front of you?

A. (Mr. Bryner) I do.

Q. Okay. And this is a flash drive that contains the virtual tour?

A. (Mr. Bryner) Mine's just a paper.

Q. Okay. Yours is probably plugged in.

Can you explain to the Committee how the virtual tour was created?

A. (Mr. Bryner) So the visual tour was created using a 3D model that was created in PLS-CADD, a design -- software design tool used by our engineering group to develop a -- so create this 3D model, and then we brought that into Google Earth, which just uses commercially variable aerial imagery as a base map.

And then we created a virtual tour path along that, we were able to record that path and then we use some post-processing to add in some labels and different things just to help orient the Committee to what's going on and the different land uses and things happening along the way.

Q. So Mr. Bryner, was this tour created under your

direction and control?

A. (Mr. Bryner) Yes.

Q. And does it contain accurate information or an accurate simulation of each of the alternative segments that we've identified?

A. (Mr. Bryner) Yes, it does.

MS. HILL: Okay. I'm going to move for the admission of TEP-12, then.

CHMN STAFFORD: I'll admit all the exhibits at end of the presentation, end of your direct case.

MS. HILL: That's right. Old habits die hard.

CHMN STAFFORD: I'm paying attention. I got them all checked which ones you're covering and like I think I've said it before, the parties have all stipulated to TEP Exhibits 9 through 11.

MS. HILL: Thank you.

CHMN STAFFORD: I still expect Mr. Bryner, he's the third panel that's going to cover all that, isn't he?

MS. HILL: Yes, we would. If we've stipulated to the admission of it, though, I believe that Ms. Grabel's idea is we can breeze through it fairly quickly.

CHMN STAFFORD: Yes.

MS. HILL: And not put everyone through the painful process of --

CHMN STAFFORD: Right. It should cut his presentation time in at least half, I would think.

MS. HILL: One would hope.

CHMN STAFFORD: Yes. I guess it depends on how many questions he gets.

MS. HILL: I guess so. All right.

BY MS. HILL:

Q. And so Mr. Bryner, could you please begin the virtual tour of Route B-4 which is the preferred route when they're combined.

A. (Mr. Bryner) Yes. Grace, could you start it? Thanks.

This is just an overall map showing our study area. We'll zoom in on the route.

So now we're at the DeMoss Petrie Substation, so you can see, it looks like, there you go, that's the generation site right in there. So you've got a lot of existing infrastructure going on.

Now, this is Grant Road we're coming up on right here. So you can see it's a major road. Our 400-foot-wide corridor is represented with the orange lines on either side of the roadway, so it does extend quite a bit out.

Q. Mr. Bryner, does the virtual tour simulate the conditions post-project or does it simulate the conditions as they are currently?

A. (Mr. Bryner) It simulates the conditions as they are currently. We didn't model all of our infrastructure. There are some remnants that Google Earth models in this, but we did not model that.

So you can see it's primarily commercial all along Grant Road. You do have some mixed residential uses.

Q. What are we crossing, Mr. Bryner?

A. (Mr. Bryner) So right there, that was 1st Avenue or Euclid right there that we just crossed and now we're turning on to Park Avenue.

So now you do see some remnants that Google Earth builds in there on the east side of the road, the right side of the road and our 138 on the -- sorry, our 138's on the right side. The 46 is on the left side. But this is residential uses primarily going through this area. You can also see some of the university buildings off in the distance there.

So this is going through the Jefferson Park neighborhood and now we're turning down on Adams Street. So again you see some of those residential uses. Some of the higher density apartments and some of the multiplexes

I was talking about. Coming in, you see the hospital there and the Vine Substation, or the site of the Vine Substation.

So now we're kind of backtracking on that, again, we talked about how for our preferred route we will use --

CHMN STAFFORD: Can you pause it a second? Can you back it up a little bit? The yellow lines is the corridor you're talking about?

MR. BRYNER: Correct.

CHMN STAFFORD: Is the corridor boundary on the right going through those people's backyards.

MR. BRYNER: You're seeing that correct. So, again, we have no intention of going there. Our intention with the corridor is so we can be on either side whatever the main road was. But in some areas, it's wider than others and we wanted to just make it simple and have a single width of a corridor.

CHMN STAFFORD: Okay. I don't know if my fellow members feel like -- I feel like that's kind of almost too broad a net to cast.

MS. HILL: Mr. Bryner, Mr. Chairman, may I ask a couple of clarifying questions?

CHMN STAFFORD: Certainly.

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BY MS. HILL:

Q. So, Mr. Bryner, is the corridor designed to also encompass any aerial easements or blowout from the line?

A. (Mr. Bryner) So it would encompass any of those. It's primarily intended to be location of the poles, but it would encompass the full width of the right-of-way.

Q. Okay. And so then the Chairman is saying, you know, this is -- this goes far into the residential area further than they're discussing. Could you just clarify at this time does TEP intend to condemn any private property for this project?

A. (Mr. Bryner) We do not. TEP, as a matter of practice we -- that's our last resort. We always try to look for different ways of doing that. So no, we don't plan to condemn. We don't plan to purchase homes, demolish homes.

And I think if the Committee is uncomfortable with the 400-foot-wide corridor we could get some more descriptive language that gave us the flexibility to go to either side of the roadway that we intend to be on without raising fear in any neighboring residents.

CHMN STAFFORD: All right. And you're talking about aerial easements. Does that mean that the power line would span over someone's home? Or it would

be in front of their home and over their property. But it looks like the setbacks aren't very far on the right side, but that could be an optical illusion because we're looking at it at slightly an angle.

MR. BRYNER: So I'll let Mr. Robinson address that with respect to being located over homes.

MR. ROBINSON: NESC code gives us some restrictions about building setbacks and safe working distances between buildings, so we would not be looking for an aerial easement that would encroach upon an existing building.

In addition to that --

CHMN STAFFORD: But it would be -- it could be over the property.

MR. ROBINSON: Yes.

CHMN STAFFORD: The homeowner's property, so it could span their front yard but it wouldn't span over the actual residential structure itself.

MR. ROBINSON: That's correct.

CHMN STAFFORD: Okay.

MR. ROBINSON: And just to clarify, in some of my earlier testimony about route selection, the route does have to be buildable. So if you look at the yellow edges that go through the backyards of these facilities, that route is not buildable. So we couldn't use that as

a proposed route for this facility; right? The only route that will work is along the streets.

CHMN STAFFORD: Unless you condemned all that property.

MR. BRYNER: That's correct.

CHMN STAFFORD: Then you own it and have big giant vacant lots with a power line in it through the neighborhood.

MR. BRYNER: We'd make a lot of friends that way.

CHMN STAFFORD: Yeah, that doesn't sound like a good plan at all. Okay. Yeah, looking at it, it didn't occur to me that the corridor was that wide compared to the street. This does give me some heartburn. I think we may need to, you know, put some clarifying language in the description of that to make it clear that you are not -- if the Committee grants the CEC we're not authorizing you to build it over the homes or under the homes for that matter.

But, yeah, I think that will -- it wouldn't -- I don't -- I'm not comfortable doing a normal description of it as here's the corridor, it'll be 400 feet wide, the final right-of-way will be 100 feet wide. But even a 100 foot wide right-of-way is going to look, if it's --

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: -- going to encompass a good chunk of that residential property there, isn't it? I guess I better look, because I can't tell what the width of that road is, but I think the actual tour we'll be able to see what we're talking about but I think we'll definitely need to pay attention when we drive down the street for the route.

MEMBER HILL: I mean, my observation is that I know the intention is to put it down Vine, but like the right-of-way that you're proposing would allow you to put it down Ring if you wanted to. I mean, it encompasses like that narrow city block and goes all the way to the other side of the adjacent street. So I think we need to tighten that up little bit.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Would it be possible to for you guys to talk amongst yourselves, the applicant, and maybe come up with some language that -- because I realize that it needs -- the corridor will need to be wider on the four-lane streets than it is on the two-lane streets, and I recognize that that's why you just wanted it to be a consistent width.

But perhaps there's some language that we

could use that says the corridor will span the street up to the setbacks on either side of the street or something like that. You know, you guys are the experts in that kind of thing.

I just do not -- I don't feel comfortable with this, and I think that -- I think that, I mean technically we are giving you the right to do whatever you want all across those houses. And I don't think that that is really something that we would feel comfortable doing.

MR. BRYNER: That's fair enough. Chairman, to your point, Member Little, to your point, we can come up with some language that addresses that. Our only ask is really the flexibility to go to either side of the road --

MEMBER LITTLE: Sure.

MR. BRYNER: In the event there's something we need to avoid or we run into a challenge.

MEMBER LITTLE: And I don't think that we disagree with that at all. It's just that we want to --

CHMN STAFFORD: Yeah, it's just that the -- the edge of the right-of-way is in the backyard.

MEMBER GOLD: Mr. Chairman.

MEMBER LITTLE: Third house over.

CHMN STAFFORD: Yeah, the backyard of the

third house back from the street.

Member Gold.

MEMBER GOLD: Mr. Chairman, where's the actual property line? Do these poles go beyond the individual property lines? Or do they stay off the property lines?

MR. BRYNER: So Member Gold, that all depends on the location. So in general the poles, the poles will be in road right-of-way, but there are some area as Mr. Robinson attested to that we feel like we're going to have to get some private easement for the -- to accommodate that blowout.

CHMN STAFFORD: Because there's a setback from the -- because you have the edge of the street and then there's the -- the kind of easement that's the -- there's a setback from the edge of the street, and there's -- they'll have the easement in that, somewhere in that space to place the pole.

And that's going to be pretty close to where the structure is. Like, do their property lines extend all the way to the street or is there -- or there's a chunk of city property between the edge of the road and before the property line of the homeowner, that's where the line's going to have to go, but -- right?

MR. BRYNER: Yes, that's correct.

CHMN STAFFORD: Okay. But since there's not -- that's not a very big area, you may have to have an easement over the part of the person's front yard to accommodate, because otherwise if there's any sway from the line that would trespass into their property without an easement.

MR. BRYNER: That's correct.

CHMN STAFFORD: All right. I just want to make sure I understand it here.

MEMBER HILL: I have a follow-up question along that line, too.

CHMN STAFFORD: Member Hill, please.

MEMBER HILL: You're using the road right-of-ways which often goes into the yards, so you wouldn't actually have to acquire an easement in a lot of places you plan or using the road right-of-ways because of the franchise agreement; right?

MR. BRYNER: That's correct.

MEMBER HILL: So you might be encroaching on front yards, but it is technically accessible because of the road easement; right?

MR. BRYNER: So, yeah, there are cases, I mean, my front yard goes up to the road. I think of that as my front yard. It may not be my property but I think

of it as mine. But technically it would be owned by the City.

MEMBER HILL: Yeah.

MR. BRYNER: Or a portion of it.

CHMN STAFFORD: All right. Is -- any more questions, Members? Or do we want to proceed with the tour?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Would it be possible to back up? I'm still caught up on this Vine Substation, and since we've got a nice overhead view could I see it from the overhead? Can you back up that far? It was just around the corner behind the barn there.

MR. BRYNER: Like right in there?

MEMBER KRYDER: Well --

MR. BRYNER: Maybe a little bit further back?

MEMBER KRYDER: Where is it? Where --

MR. BRYNER: The Vine Substation there, it's --

MEMBER KRYDER: Okay. What I was looking for is we talked about the walls and the university substation and your station and then the new station, and I was wondering if I could see that from above. Is

that -- will it show or not?

MR. BRYNER: So I can -- sorry to speak over you, Member Kryder. I can point out those right here. I can't -- since this is a static recorded video, I can't kind of turn it to get you that perfect overhead, but I'll point out where those substations are at relative to our new location, at least I'll do the best I can.

And also, Grace, when we start again, can we go at one and a half time speed? I feel like we might be racing a little bit quick, even for me who's seen this several times.

So right here, I'm just starting at the Vine Substation. So you see these large white buildings right in here? Those are the buildings that you saw in our rendering of the simulation of the Vine Substation site. So that's where the new substation will be located.

TEP's existing U of A Medical Substation is located right here. And then there's just a tiny space in between that, and then this is the university's GIS substation. So they're immediately south of that.

MEMBER KRYDER: Okay. That's very helpful.

I hope we -- will we be stopping there tomorrow or when we're on the ground?

MR. BRYNER: We'll be stopping there several times.

MEMBER KRYDER: Excellent. Okay. Thank you very much.

CHMN STAFFORD: It will be on Thursday, not tomorrow, though.

MEMBER KRYDER: If I'm out there I guess I'll be alone.

MR. BRYNER: Any more questions?

Grace, can you go ahead and play it?

That's a better speed.

MEMBER KRYDER: That's much better.

MR. BRYNER: If anybody feels like they didn't get justice on Grant Road we will see Grant Road several other times. So we can point things out again there.

So now we're on Vine Avenue heading south.

CHMN STAFFORD: That's U of A to the left and residences to the right?

MR. BRYNER: Correct. That was a hospital.

CHMN STAFFORD: Hospital. Okay.

MR. BRYNER: U of A kind of mixes a bit there. And then we are on Adams right here, so now you can see a little more clearly some of those apartments and multiplexes going on. You can see that parking lot

that we saw in some of the photo simulations.

Now we're turning on to Park Avenue. The University Heights Elementary School is right there, or the historic University Heights Elementary School.

You can see a lot of high-rise student housing from the university as we approach Speedway. Speedway Boulevard runs right there. Downtown off in the distance.

Now we're turning on to Euclid, entering into the West University neighborhood. So again, you can see it is fairly tight in here with, you know, apartments on one side, some high-rise buildings on the left side. Getting into some more residential uses on the west side.

You can see Tucson High coming up. And this is 6th Street we're just crossing over, entering into the Pie Allen neighborhood on the left side. Iron Horse neighborhood on the right side. Broadway Boulevard is right here running east-west -- yeah, east-west.

So now we're approaching the crossing of Aviation Highway which is right here, and the railroad tracks. So that's where we'd need some of those taller structures that Mr. Robinson talked about. Going on to Toole Avenue. Now we're entering into a much more industrial area where we'd follow Euclid.

Does the little jog right here, so we'd

have a couple of structures in close proximity to make that turn. We have a school right there as we cross over 22nd Street.

Now we're into the South Park neighborhood. We do start getting a smattering of a few residential uses in here, but still primarily industrial. And now we really get into a lot more residential uses on the east side of the road, or the left side of Euclid Avenue.

And then now we're into residential on both sides of the street.

We're approaching 36th Street.

Now, this, if you look off you can see our existing line from Irvington coming in from the south. We'd join up with this and from there on we'd have a single pole line going into the Kino Substation and this again is that Bridges development that's been spoken of on the right side.

And you'll see there's actually more development there today when we go out on field tour.

We've got a library and a community center on the right side -- or the left side of the road.

And then our Kino Substation as we cross over Kino Parkway.

And that's the preferred route tour.

MS. HILL: Thank you, Mr. Bryner.

And with that, Mr. Chairman, I think we'll conclude our presentation for the day unless there are any other questions from Committee members.

CHMN STAFFORD: Any other questions from members?

MEMBER RICHINS: Mr. Chairman, just a quick confirmation that the power line heights have been cleared with Davis-Monthan, that's not an issue? Just want to make sure we got that.

MR. BRYNER: Yeah, so we're outside of all of the -- it's late in the day -- there's no conflict.

MR. ROBINSON: Thank you.

CHMN STAFFORD: With Davis-Monthan, is that what you asked about?

MEMBER RICHINS: Yeah.

CHMN STAFFORD: Okay. All right. Excellent. Any other questions, Members?

(No response.)

CHMN STAFFORD: All right. We will see you back here at nine a.m. tomorrow. With that, we are in recess.

(Proceedings recessed at 5:07 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

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Dated at Phoenix, Arizona, July 14, 2024.



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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-356

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 10, 2024

Filed: July 23, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME III
(Pages 526 through 789)

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ACC - Docket Control - Received 7/23/2024 1:11 PM
ACC - Docket Control - Docketed 7/23/2024 2:17 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719

INDEX TO EXAMINATIONS

WITNESSES		PAGE
Clark Bryner and Larry Robinson (Cont.) - for the Applicant		
Chris Lindsey (Recalled) - for the Applicant		
	Direct Examination By Ms. Hill	541
	(Mr. Lindsey was excused.)	546
	Cross-Examination By Ms. De Blasi	720
	Cross-Examination By Mr. Lusk	731
	Cross-Examination By Mr. Dempsey	744
	Redirect Examination By Ms. Hill	765
	Recross-Examination By Mr. Lusk	768

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	--
TEP-2	Map of Proposed Project	21	--
TEP-3	Testimony of Clark Bryner	52	--
TEP-4	Testimony of Chris Lindsey	54	--
TEP-5	Testimony of Erik Bakken	57	--
TEP-6	Testimony Summary of Larry Robinson	386	--
TEP-8	Witness Presentation	49	--
TEP-9	TEP Ten-Year Plans	58	--
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	--

//

INDEX TO EXHIBITS (Continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	--
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	--
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	--
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	--
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	--
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	--
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	--
TEP-10	Exhibits Regarding Notice Requirements	58	--
TEP-10A	Notice of Hearing	58	--
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	--
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	--
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	--
TEP-10E	Map of Notice of Hearing Sign Locations	58	--

//

INDEX TO EXHIBITS (Continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10F	Photographs of Sign Placement	58	--
TEP-10G	Example of Sign Contents	58	--
TEP-10H	Notice of Service to Affected Jurisdictions	58	--
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	--
TEP-11	Receipt of Filing Fee	58	--
TEP-13	Tour Itinerary/Script/Protocol	254	--
TEP-21	Letter of Support from University of Arizona	368	--
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	--
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	--
BUMCT-1	Testimony Summary of Mark Barkenbush	37	--
BUMCT-2	Witness Presentation	37	--

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:06 a.m. on July 10, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
DAVID FRENCH, Arizona Department of Water Resources
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns
(via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public
DAVE RICHINS, General Public
JOHN GOLD, General Public

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CHMN STAFFORD: Let's go back on the record.

(Clark Bryner and Larry Robinson, as a panel were previously duly sworn by the Chairman.)

Before the applicant continues with its presentation, I believe Member Hill had some questions, some follow-up questions to ask.

Member Hill.

MEMBER HILL: Thank you, Mr. Chair. Good morning, everyone.

So I really appreciate the conversation and, frankly, education about the difference between the distribution system and the service poles in the diagrams that we've looked at.

I was wondering if we could look at Slide 72. It's like you guys know what I was looking for. I didn't expect that.

MR. BRYNER: We were just trying to be responsive. We don't know you were going to bring this up honestly.

MEMBER HILL: All right. So I think TEP has done a lot to try and figure out how to mitigate the visual aspects of this, and so these visualizations are really helpful to me.

And so I wanted to talk a little bit about

a couple of the visualizations and the potential to actually have to add some poles for service to homes.

So, Mr. Robinson or Mr. Bryner, when I'm looking at the before condition, I see a couple of -- and I'm not going to have to technical terms here -- but, like, poles down to houses for service off of some of the poles that in the simulation appear to be removed. Exactly. But that's the best example.

So I'm curious if the -- how the visualization might actually end up being different because those homeowners might not want to underground.

Will there be poles on the right side of the street there, or will it actually be pole-free the way the visualization looks?

MR. BRYNER: Yeah. So Mr. Robinson is prepared to provide a clarification and some additional information on that.

MEMBER HILL: Thank you. Okay.

MR. ROBINSON: Yeah. So during projects where we are undergrounding distribution to make space for overhead transmission line, the designers that are doing those underground distribution sections have two options depending on what makes the best sense to them, right.

And one of them is to set a service pole at

the property line where the underground service wire will come to the pole, up the pole, and then serve the customer overhead just like they currently are being served.

And the second option is to potentially upgrade the service entrance on the house and run underground across their property to that service entrance.

Under all -- under both of those scenarios, as part of the project, TEP would pay for that.

MEMBER HILL: Okay. And consult with landowners to see how they want to -- to do that?

MR. ROBINSON: So that decision would be based on the designer's choice, right --

MEMBER HILL: Okay.

MR. ROBINSON: -- and what makes most sense for the distribution system.

If a customer chooses to say we wanted to put a service pole and an overhead the way they currently being are served, and they choose to say, no, we want underground service, then -- then we would ask them to put the service upgrade and the conduit in --

MEMBER HILL: On their property?

MR. ROBINSON: -- on their property, and we would put in the wire and all of that.

MEMBER HILL: Okay. That's helpful.

CHMN STAFFORD: Quick question on that. What's the estimate of cost on that if the homeowner would have to do that?

MR. ROBINSON: So, of course, that varies greatly depending on how far they have to trench. Trenching is probably going to be around 1500 to as much as $2,500.

CHMN STAFFORD: And that would be pretty much the extent of their costs?

MR. ROBINSON: Under this scenario --

CHMN STAFFORD: Yeah.

MR. ROBINSON: -- yes because we would put in -- well, let me correct that. They would also need to upgrade their service panel to have an underground service panel also at their cost. And that's going to be roughly another thousand dollars.

CHMN STAFFORD: So anywhere between 25 to 35?

MR. ROBINSON: 25 to 35. Yeah.

CHMN STAFFORD: Okay.

MR. ROBINSON: Roughly. Right.

CHMN STAFFORD: Thank you.

MEMBER HILL: Okay. I think if we go back to Slide 70, I -- 7 -- so this is 72. 70.

I was noticing that -- so in this scenario, there's that apartment complex that's on the left-hand side of the road there, and it looks like there's some lines running into it similarly.

So in this scenario -- the last scenario it was the potential to have service poles on one side and the 135kV on the road. In this scenario, the future will be the 135kV on the left.

Would you put service poles underneath that to provide service to those folks, or would you under build them as part of the -- I'm just kind of curious the visualization looking differently here.

MR. ROBINSON: Yeah. So under this scenario if there was an overhead service in that corridor, we would put a service pole on the property line and come to that service pole underground, riser up to the pole and then go directly to the house.

MEMBER HILL: Okay. All right. So it might just be underneath this line, though, like below --

MR. BRYNER: So I actually -- if I can just throw in a couple of words here. I think this one is actually a pretty accurate visual depiction in the -- in the picture on the right of what it would look like with the exception of I see we have some remnant wires right here.

But basically that distribution would be placed underground, and to Mr. Robinson's point, it would riser up at approximately that pole location. We'd probably have to change out that pole.

MEMBER HILL: Okay.

MR. BRYNER: And then those poles are going down. In a lot of this area of town, the distribution system runs down the alleyways, and then those services come off the alleyways.

So in most cases, we wouldn't -- we wouldn't really be faced with this position of having a service coming off the poles and directly on our road. There would be some cases where that would be the case, but for the most part, they're coming off of services in the alleyways.

MEMBER HILL: Okay. All right. That's helpful. I think when we go on the tour, it might be nice to kind of just look more closely at some of these areas where we think it would all end up being undergrounded, but then we'd have to come up for service poles just so that we kind of -- because we've talked about how many poles you've -- you're taking out because of the removal of the 46kV, but there might be places where you're actually leaving or replacing, you know, service poles because they've been under built or

something else different. So I just think it would be great during the tour if we could talk about that a little bit in some spots.

MR. BRYNER: That's fair.

MEMBER HILL: Yeah.

MR. BRYNER: And we can think of a couple of good spots where we might -- we might be able to have that discussion.

MEMBER HILL: I was driving around to get coffee this morning, and all I did was look around at those wires. So I've become obsessed with this. And I apologize. And I'll calm down about it.

But I really appreciate you guys taking the time. I just feel like as the public thinks through these things I'm kind of asking similar questions and so trying to think through the visualization, so thank you.

CHMN STAFFORD: Thank you.

Member Little, you had a question?

MEMBER LITTLE: Yes. I'm just curious. That one pole on the right-hand side that we were talking about there that's in the background, that has a transformer on it.

Transformers would be pad mounted if the distribution is removed; right?

MR. ROBINSON: That's correct.

MEMBER LITTLE: Correct?

And then from there you would go to a service pole if the -- if the service was going to remain overhead to a customer?

MR. ROBINSON: That's correct. Either down the alleyway or to a service pole at the property line to riser up.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Any other questions from Members?

Mr. Ancharski, please proceed. Oh, Ms. Hill.

CHMN STAFFORD: Oh, Ms. Hill.

MS. HILL: Sorry. You got me today.

CHMN STAFFORD: As long as we have at least one Megan.

MS. HILL: We appreciate that.

So, Mr. Chair, with your permission we would like to follow up first on a couple of things that were -- a couple of questions that were asked on the first panel.

And so with your permission I would like to recall Mr. Lindsey to follow up on the information about the City of Tucson statistics that were requested.

CHMN STAFFORD: Excellent.

MS. HILL: Mr. Lindsey, could you rejoin us please.

Thank you. Good morning.

CHMN STAFFORD: I remind you that you're still under oath.

MR. LINDSEY: Yes, sir.

CLARK BRYNER AND LARRY ROBINSON (cont.), called as witnesses as a panel on behalf of Applicant, having been affirmed or sworn and/or previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

CHRIS LINDSEY (recalled), recalled as a witness joined the panel on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. HILL:

Q. Mr. Lindsey, do you recall the conversation from yesterday and the questions from the Committee Members about the number of City of Tucson customers and the sort of percentage of our load and/or usage that the City of

Tucson customers specifically encompassed?

A. (Mr. Lindsey) Yes. I do.

Q. Do you have some responses and some information for the Committee in response to those questions?

A. (Mr. Lindsey) I do, yes.

Q. Could you share that with the Committee, please?

A. (Mr. Lindsey) So I believe there were two questions, as you mentioned Ms. Hill, related to the City of Tucson city limits.

And thank you for giving us a little bit of time to track this down. It's not really how we look at our customer base every day, so it took us a little bit of time to get the second statistic here for you, but the easier part was the customer count breakdown.

So out of -- and I think this is a two-part question. So total number of customers today is 455,861 customers in our service area.

Out of that within the City of Tucson city limits there are 252,754 customers. That breaks down to approximately 55 percent of our customer base is within the City of Tucson.

That was the easy part. The hard part was finding out what the peak load percentage looks like. So, as you can imagine, our system is designed to serve our service area, not so much to follow the boundaries of

the cities.

So we did a little bit of work, and that number is a little more approximate. There are a few circuits at several substations that reach outside the city or come into the city. But that number is roughly 60 percent of our peak load from 2023. So we're basing that number off of last summer's peak.

60 percent of our peak load in our service area can be contributed to the City of Tucson.

CHMN STAFFORD: I had a quick follow-up question.

What day was your peak load last summer?

MR. LINDSEY: I'm going to find it.

CHMN STAFFORD: Yeah -- because I'm sure it's in your -- someone prepared this thing for this year's rate, but I can't recall what it was off the top of my head.

And, if you could, like, just the day and the total megawatts whatever it was, that would be -- you can chime in whenever you find it, but in the meantime please proceed.

MS. HILL: Thank you, Mr. Chair. We just have a couple of other details too.

BY MS. HILL:

Q. Mr. Robinson, did you have any additional

information for the Committee at this time based upon questions from yesterday?

A. (Mr. Robinson) I think those questions were asked and answered by Member Hill this morning, so thank you.

Q. Okay. Thank you.

And, Mr. Bryner, do you have an update for the Committee about the questions they had yesterday for the -- regarding the right-of-way -- or the corridor request for this project?

A. (Mr. Bryner) Sure. So yesterday we talked about our requested corridor width of 400 feet and some concern about that being a little bit too generous in some areas.

And so what we are doing right now is looking at developing an exhibit to show to you that would propose corridors of varying widths along different roads. It would encompass those road rights-of-way and a sufficient buffer for any future plans for future expansion of that right-of-way and any potential aerial easements that we would need to accommodate our line, and we'll be prepared to share that exhibit with you on Friday.

CHMN STAFFORD: Thank you.

BY MS. HILL:

Q. And, Mr. Bryner, too, do you have an update for

the Committee regarding the calculation or the designation of the low-income population?

A. (Mr. Bryner) Sure. So we did some -- well, I won't say research -- just looking at our past notes of what we did to calculate the low-income areas. And the data was correct, as I mentioned, that it came out of the census, the 2020 census. And it was a direct number. They provide numbers by the geographic areas with that -- with the poverty level for that census tract.

But the way that they develop it -- and I think Chairman Stafford mentioned this, but I'll just put it on the record that the census bureau, they use a set of money income thresholds varying by family size, and so, you know, if it's a family of one, it's one income level, if it's two, three, four, five, it's all different levels. But if that family is below that designated threshold -- and I could give you those if you wanted, but they're published on the census -- then that family is considered below the poverty line.

And so when the number of families within a geographic area exceeded the percentage of the City of Tucson as a whole, which we discussed was -- and actually let me clarify I said 19.8 percent. It's actually 19.6 percent. Somewhere along the line I transposed a couple of numbers. So anything below that was -- or,

sorry, anything exceeding that was considered a low-income area for purposes of our study.

Q. All right. Thank you, Mr. Bryner.

MS. HILL: And, Mr. Chair, do you want Mr. Lindsey to remain at the table until he can respond to your question, or would you like to excuse him for now and we can check in with him later?

CHMN STAFFORD: Unless you have the answer right now, then you can give it and be done. Otherwise, you can be excused and come back later, whatever is appropriate.

MR. LINDSEY: Mr. Chair, we're ready.

CHMN STAFFORD: Okay. Thank you.

MR. LINDSEY: So peak load for 2023 was 2,456 megawatts, and that occurred July 23 at it looks like 4:15 p.m.

CHMN STAFFORD: Thank you.

MS. HILL: Thank you, Mr. Lindsey.

May Mr. Lindsey be excused?

CHMN STAFFORD: Yes.

MS. HILL: Okay. Thank you.

MR. LINDSEY: Thank you.

BY MS. HILL:

Q. Okay. Mr. Bryner, are you ready to proceed with Route D?

A. (Mr. Bryner) I'm ready if everybody else is.
Q. And do we need to advance the slide?
CHMN STAFFORD: So we're starting on Slide 82?
MR. BRYNER: Yes.
CHMN STAFFORD: Okay.
BY MS. HILL:
Q. All right. Mr. Bryner, are you prepared to present Route D to the Committee?
A. (Mr. Bryner) Yes.
Q. All right. Please proceed.
A. (Mr. Bryner) Okay. So yesterday we went over our preferred route, which was Routes B and Route 4.
I want to present these next two routes, which are Routes D and Route 1, in kind of a combination package as well. And that's because they have some similar themes. They both go down Campbell Avenue.
So if I were to give this route a name, I would call it the Campbell Route. And as we discussed, Campbell Avenue is a Gateway Corridor. So it's kind of if you were to pick one of these, it would make sense to pick both, in my mind.
We'll first talk about the alternative Route D between DeMoss Petrie and Vine Substations.
So, again, starting with the right-hand screen,

just some various numbers pertaining to the route. So the route would cost around $8.7 million. Again, that's all-in costs for the route.

It would be about 3.8 miles in length, go through less residential, just .2 miles of residential area. And all of that would be within an area considered low income by the criteria we've established, about .3 miles of historic districts.

It continues to use quite a bit of existing overhead utility corridor at 63 percent for the route as a whole, and it would result in us moving 1.7 circuit miles of existing lower voltage distribution underground and also 7.2 miles of overhead communication wires.

As far as comments went on this route, we didn't receive a lot of comments opposed, just two comments that were specifically opposed to this. One because they were against the use of Campbell Avenue and another because it was a less direct route.

As far as comments in support of this route, we received 20 comments specifically in support of using this route for various reasons.

The largest of which was a lesser impact on the neighborhoods. As you can see on the map on Slide 84 shown on the left screen, you know, the route doesn't enter into these neighborhoods. It instead uses the

arterial roads. And that's the second major supporting item for this is it maximizes the use of some of your major roads.

So I want to turn our attention now to the map and just describe the route. As Mr. Robinson mentioned before, he went through his engineering analysis. A lot of these routes have common areas, so I'm not going to repeat myself. What held true yesterday along Grant Road still holds true today for Route D.

CHMN STAFFORD: So we're looking at the map on Slide 84; right?

MR. BRYNER: Correct, Slide 84.

So I'll begin my discussion at Park Avenue and Grant where we deviate from Route B.

So beginning -- oops, wrong remote.

So beginning at Park Avenue -- we talked -- to the west on Grant Road it's primarily commercial. Once you get to Park moving east on Grant Road, as you can see on the map you've got a lot of those tan areas, it does become primarily residential on either side of the road.

But the road still is a major arterial road. And also at this point -- let's see, how I do want to say this. The public infrastructure project or public improvement project that I spoke about yesterday on Grant

Road, it hasn't yet taken place from this point east. But that's the next phase of that project, and so it is going to undergo a widening in the very near future.

CHMN STAFFORD: So just refresh me, Grant Road is not a Gateway Corridor; correct?

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay. I'm trying to keep it all straight in my head here.

MS. HILL: Mr. Bryner.

MR. BRYNER: There a lot of facts.

CHMN STAFFORD: Yes.

BY MS. HILL:

Q. Just to clarify, though, for the chairman's question, is there a portion of the gateway -- of Grant Road where it crosses Oracle that does do a perpendicular crossing of the Gateway Corridor?

A. (Mr. Bryner) That's correct.

Q. And just to be clear for that, TEP is planning on applying for a special exception; is that correct?

A. (Mr. Bryner) That's correct.

Q. Thank you.

CHMN STAFFORD: And Campbell Avenue is a Gateway Corridor; correct? Okay.

MR. BRYNER: Also correct.

So, again, we don't go into the

neighborhoods themselves. We stay on the major road. Once we get to Campbell Avenue, we now turn south and parallel along Campbell Avenue.

And, as we just discussed, Campbell Avenue is a Gateway Corridor. We would not be crossing it perpendicularly. We would be paralleling that road within the road right-of-way.

BY MS. HILL:

Q. And so, Mr. Bryner, then just for this moment too is then this section of Campbell Avenue because it's paralleling the Gateway Corridor, is this an area where we would be asking the Committee to make the finding under 40-360.06(D) regarding unduly restrictive and not feasible?

A. (Mr. Bryner) That's correct.

Q. Thank you. Just discussing the land uses along Campbell Avenue, you can see in the northwest -- sorry, southwest corner of Campbell and Grant Road -- you do have some commercial uses right in there. Other than that the adjacent land uses are primarily residential.

Once you get down to Ring Road or Elm, it's kind of Elm on the east side, Ring Road on the west side of the road. Then you get into the Banner - UMC campus is located just on the south side of Ring Road. On the north side you get into residential areas within the

Jefferson Park neighborhood.

In this area, it's an area similar to the situation we faced along Adams Street where we had a 46kV line in an alleyway, and we couldn't build there. In this situation just north of Ring Road, there's an alleyway, and we have a 46kV line there that initially was identified as an opportunity. Same story, we couldn't go there to rebuild that, and so we looked at adjacent road.

So Lester Road is the road on the south side. And this is one of those areas where we liked the 400-foot-wide width because it gave flexibility to go on either Ring Road, which is actually a private road owned by Banner, or Lester, which is a public road where we have rights to be on the road right-of-way through our franchise, but it also puts it closer to homes.

And I'm sure Banner will talk about in their testimony they've worked out arrangements with the neighborhood there to kind of protect a corridor that's been developed there. And, you know, I forgot I have visual simulations along here. So I'm going to show you a picture of that so you can get an idea. I'll see what other visual simulations I might have missed along the way.

So we'll jump back to that in just a second to

about where I was at. Let's just take a quick look at this visual simulation.

So this is back up on Grant Road looking to the -- looking to the west. So this is the area that I mentioned, it is residential on either side of the road. Still a major road two lanes in each direction with a turn lane down the middle. No overhead utilities today on this stretch, and so we would place our line there.

CHMN STAFFORD: Looking at Slide 85 KOP 33?

MR. BRYNER: That's correct.

Sorry. I will try to point out those slide numbers.

CHMN STAFFORD: I'm anticipating reading the transcript later. It will be easier to recall which image we were discussing if it was specifically called out by the slide number.

MR. BRYNER: Sure.

MEMBER FRENCH: Mr. Chairman.

CHMN STAFFORD: Yes, Member French.

MEMBER FRENCH: Mr. Bryner, could we -- perfect. Can you describe what this roadway will look like post-expansion project?

MR. BRYNER: I don't know that I'm 100 percent prepared to share what that would be like. I know the public improvement plans are out there, but I'm

not well versed in them. I can make an assumption if you'd like me to.

MS. HILL: Mr. -- I'm sorry. Let me interject. Mr. Bryner, Mr. Lusk's witness may be prepared to answer that.

MR. LUSK: That's correct, Mr. Chair, Member.

MEMBER FRENCH: Thank you. I'll hold my question until then.

MR. BRYNER: Thank you.

CHMN STAFFORD: Excellent. It's like you're reading my mind.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: It looks like the -- from Grant Road to Campbell Avenue looking on the map over here, it looks like maybe two-thirds of it is -- has residential on both sides as we see here, but another third of it has residential on one side and commercial on the other perhaps?

MR. BRYNER: That's correct. Yes. So I think you're referring to the area basically from 1st Avenue --

MEMBER LITTLE: Oh, yes, 1st Avenue. Thank you.

MR. BRYNER: -- past Park, right in that area. So that would be commercial on the south side of Grant Road.

MEMBER LITTLE: That's correct. Thank you. I was mistaken.

MR. BRYNER: So looking at -- oh, did I -- Grace, I might have ruined it.

MR. ROBINSON: Clark, while she's squaring that up, I just want to add to this.

This is a prime example, Member Hill, where there's residential street side, but all of the services and distribution run on the back alleyway lot lines.

So, as you can see in that rendering -- if you can go back, Clark. You can see in that rendering there's no street side distribution along that area.

CHMN STAFFORD: This one here on Slide 86?

MR. BRYNER: Were you wanting to look at Slide 85?

CHMN STAFFORD: No. This is fine.

MR. BRYNER: Okay. When I go backwards, sometimes I break our presentation.

CHMN STAFFORD: Okay. So we're talking about this picture is what you're referring to, Mr. Robinson?

MR. ROBINSON: Yes. KOP 33 on Slide 85.

CHMN STAFFORD: Okay.

MR. BRYNER: Now, looking at Slide 86 or KOP 35. So this is looking south along Campbell Avenue, so Campbell Avenue is a gateway in this stretch. As I pointed out before, there are some commercial uses here. You can't really see them in the photo because they're just behind the chain link fence on the left-hand side of the photo. And then you have residential uses.

They're set back a ways away from the major road. There's a frontage road along Campbell in this stretch. So they're set back quite a ways.

And then that larger building you can see in the center of the picture, that is the hospital, the Banner hospital.

And we would have to do some -- I don't know if, Mr. Robinson, if you want to talk about what's going on with these structures going all over the road.

MR. ROBINSON: Yeah. For this route in the detail we haven't completed the detailed engineering yet, but we anticipate that as we approach the intersection at Grant and Campbell because some of the commercial that's currently there that we'd have to go to the east side of Campbell and then proceed a span to the south along Campbell on the east side and then cross Campbell at a diagonal.

And some of our routes coming up in the future, we indicate that their commercial setbacks and buildings are narrow, and we would have to cross zigzag across the streets there's noted. This is a good example of one of the renderings that shows a zigzag cross across Campbell.

CHMN STAFFORD: Is that a factor making this one not the preferred route?

MR. ROBINSON: I think in reality, the impact of that is just it has a greater visual impact at that specific area where you're crossing underneath the wire across the street on a diagonal. I just want to point that out.

CHMN STAFFORD: And that is the Gateway Corridor too?

MR. ROBINSON: That is also the Gateway Corridor, yes.

MR. BRYNER: And to answer your question, Chairman Stafford, so that was one of the factors that certainly weighed in. But if you look at your placemat, we had I think it's 19 different factors that we looked at.

BY MS. HILL:

Q. Mr. Bryner, I'd just like to follow up on that question of the Chairman's for a minute, if we could.

Did timing or potential timing of being able to build the Campbell Route play into it not being a preferred route?

A. (Mr. Bryner) Yeah. That's correct. As we go long and look at some of the other variables on this and as I discuss our siting study on panel 3, you'll see some of the other things that we looked at, and you're going to see that Campbell Avenue in many, many respects plays out as a better route. It's more direct, has fewer environmental issues, fewer land use issues, but it is a Gateway Corridor Zone, and there's -- as we've discussed, there's some unknowns about that, some legal challenges that might be tied up for a time, and we do need to get this project built.

Q. And, Mr. Bryner, the legal challenges themselves, do they contribute to a concern about delay in the project and our ability to build it if Campbell were to be our preferred route?

A. (Mr. Bryner) Yes. They certainly do.

Q. And as a result of the Committee -- even if the Committee were to make a finding that allowed us to parallel a Gateway Corridor down Campbell, are we asking that the Committee also choose an alternate route so that in the event that there is subsequent litigation building the project is not unduly delayed?

A. (Mr. Bryner) Yes. We are.

Q. Thank you.

A. (Mr. Bryner) All right. This is where we kind of left off in our discussion as I was describing the route on Slide 84, and now we're on Slide 87 looking at key observation point 28.

So this is a -- this is a -- a park. It also serves as a retention -- stormwater retention for the hospital. But it's that buffer zone that was created by the hospital between Jefferson Park and the hospital. And it lies in between Ring Road and Lester Street.

And so we were asking for the flexibility to be located on Lester or Ring or anywhere in between. But one of the things that we -- we spoke about with -- with the parties, with Banner and the neighborhood, that if Route D or any of the routes that go down this corridor were selected by the Committee, that we would work -- we would want to have the flexibility to work with them to identify the best location for those poles.

And this is on Lester Street. We're on key observation point 27, Slide 88 on Lester Street at Vine Avenue looking back to the east towards where that last key observation point was at. So this does illustrate the poles going down the south side of Lester Street.

And if you look in the photo simulation on the

right, this last pole that you see right here, that would be the final pole before dropping into the Vine Substation.

And in this area you can see right here, you do have residential on the north side. On the south side, it's -- it looks -- it looks residential right there, but those are actually buildings that are part of -- they're owned by the Arizona Board of Regents.

CHMN STAFFORD: And so along the street all the distribution infrastructure is in the alley behind?

MR. BRYNER: Correct. Yeah. And thank you for bringing that up.

Yeah. What you don't see just north of this street is an alleyway that has overhead 46kV, overhead distribution, and then your communications. And so that 46kV would be retired. And the distribution we wouldn't plan to touch that as part of this project because it would be out of the way, I guess.

CHMN STAFFORD: And that's the 4kV distribution line?

MR. BRYNER: I believe it's the -- so we have some areas that are 4kV, some that are 14kV. I believe this area is 4kV still.

CHMN STAFFORD: But as part of this whole project you're looking to move all the 4kV to 14kV;

correct?

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay.

MR. ROBINSON: Mr. Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: Just a question on this 6-D route. I'm trying to reconcile the colors here with the route from Kino to Vine appearing to go up Euclid along the railroad and then up Stone and back over circling into Vine via Campbell. My understanding that's Route 6 correctly.

MR. BRYNER: So Route 6 is the pink line.

MEMBER RICHINS: Yeah.

MR. BRYNER: Okay.

MEMBER RICHINS: So it appears to come up and parallel Route D along Grant.

MR. BRYNER: It does, yes. Yeah, you are understanding that correct.

MEMBER RICHINS: We would have two sets of 138 poles --

MR. BRYNER: If we --

MR. RICHINS: -- with that selection?

MR. BRYNER: Sorry. Yes, sir. I didn't mean to speak over you.

MEMBER RICHINS: You're good. No. You're

good.

MR. BRYNER: Yeah, Member Richins, you're absolutely correct. And there's a number of routes that would be that way if we selected the correct or incorrect combination of routes where you would have both circuits going into the Vine Substation sharing poles for, you know, anywhere from several miles to, you know, just a few hundred feet.

MEMBER RICHINS: Would it be -- sorry.

Would it be one set of poles with two sets of 138 lines?

MR. BRYNER: Yes.

MEMBER RICHINS: So we would just see something like this with a double -- would it be like on either side of the pole? Would it be up, down?

MR. ROBINSON: Yeah, that's correct. It would be a double-circuit configuration with a circuit on the opposite of each side on --

MEMBER RICHINS: Okay.

MR. ROBINSON: -- at the top opposing each --

MEMBER RICHINS: Okay. So similar to the photo in the simulated condition on KOP 27, but there would be arms that would come out for both down Grant --

MR. ROBINSON: That is correct.

MEMBER RICHINS: -- and part of Campbell and then swinging into Vine? Okay.

MR. ROBINSON: If the siting selection was Route D-6.

MEMBER RICHINS: Yeah.

MR. ROBINSON: That's correct.

MEMBER RICHINS: Yeah. Okay. And because, yeah, I did notice that that finds itself on a number of these routes. It's, like, wait, I got to understand. So thank you for the clarification.

MR. BRYNER: Yeah. And that's -- it's both good and bad. It's good from an overall poles perspective because you're going to have fewer poles that you're going to put in.

It's less ideal from a reliability standpoint because now we have both circuits going into the same location -- both sources going into that substation are on -- in the same location.

So not that we're overly concerned about a pole failure or something like that, but from a maintenance standpoint, when you need to do some maintenance, you're likely going to need to do that energized. Our preference is to take it de-energized, de-energize that line so we can get up there and do our work. We do do things energized or hot. It just is a

little more involved.

And so minimizing the amount of area where we sort of have both our eggs in the same basket is preferential for the company.

MEMBER RICHINS: Oh, okay. That's interesting. Thank you.

MR. LINDSEY: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: If by some chance this were to be -- 6-D were to be chosen as the preferred route and it were to be undergrounded along that street where we've got the double circuit, what would that involve as far as underground vaults and the conduit casings?

Would it be, like, twice as wide, twice as deep?

MR. BRYNER: Those are great questions, Member Little. Any chance we could have that held off for our underground panel that we have planned for Friday?

MEMBER LITTLE: Absolutely. Thank you.

MR. BRYNER: Okay.

MS. HILL: And, Mr. Chair, if I could, I'd just like to remind the Committee that in the event that Routes 5 or 6 are chosen we are asking the Committee to also choose an alternate route because of the uncertainty

of the railroad right-of-way.

CHMN STAFFORD: Yes. Thank you.

I have 5 and 6 as special railroad attention in my notes.

MEMBER GOLD: Mr. Chairman.

MR. ROBINSON: Member Little, can I just --

CHMN STAFFORD: Yes.

MR. ROBINSON: -- ask that --

CHMN STAFFORD: One second.

Member Gold.

MEMBER GOLD: Campbell Avenue is what is called a gateway avenue?

MR. BRYNER: A Gateway Corridor, Gateway Corridor Zone is what we generally refer to it as.

MEMBER GOLD: So if Campbell Avenue is a main or Gateway Corridor that we want to I guess not have wires showing on because it's a Main Street that a lot of people travel and visitors travel on, you would -- I would eliminate this simply because it's going to create a lot of hassles unless you underground it. And if you underground it, we have no say in the matter.

Am I correct in that assumption?

CHMN STAFFORD: Let me answer that, Member Gold.

Well, the Committee can approve a route.

And then the statute says that the CEC will be conditionally in compliance with city ordinances.

So if we issued the CEC and didn't make the special finding that the ordinance is unduly restrictive, then to build it they would have to underground to comply with the City's -- the Gateway Corridor because that's what that is.

So but if the Committee found that it was overly restrictive, it could issue the CEC notwithstanding that requirement from the City.

MEMBER GOLD: It seems like this would be more complicated than the route that they preferred, but that's for us to decide.

CHMN STAFFORD: Right. I think so. Yes. I would agree with that assessment, Member Gold.

MR. BRYNER: And then to your point, Member Gold, that's another one of the factors that went into our reasoning in not identifying this as the preferred.

You know, if we have another route that is -- that we can build that respects the City's Gateway Corridor, then, you know, that -- that played into our decision.

MEMBER GOLD: Well, I would say, in complimenting you on what you've done, you've gone far deeper into this.

MEMBER KRYDER: Into your microphone.

MEMBER GOLD: I would compliment you on what you've done giving all these routes and alternates. It looks like you've put a lot of effort into figuring out which should be the preferred route for a lot of good reasons.

So what you're doing is you're showing us alternate routes and justifying why you didn't choose it.

Am I correct in this assumption? That's why we're looking at the alternate routes now?

MR. BRYNER: That is correct. Every route has some good things about them and some bad things, and it's what's important to you, to the Committee.

MEMBER GOLD: And your experts have weighed those things back and forth, and I'm gathering your experts are better than my engineering knowledge or legal knowledge.

I'm guessing you did your due diligence in this. Am I correct in that assumption?

MR. BRYNER: That's correct.

MEMBER GOLD: And I'm assuming nobody bribed anybody to say not in my neighborhood or anything else, you're looking at this from purely from a cost, logical sense based on the area we have and how we have to provide; is that correct?

MR. BRYNER: So, yes, we looked at it from -- various subject matter experts looked at their areas of expertise, assessed these routes from their perspective.

We did weigh in public comment and sentiment into the equation as one of the factors. Cost was weighed in as one of the factors.

But in no area did we weigh in our personal preferences for one route over another.

MEMBER GOLD: So I'm assuming with that that none of you or your people live along any of those routes?

MR. BRYNER: You know, I don't know if anybody in our team lives along any of these routes. I know I don't.

MEMBER GOLD: Okay. I would be curious if members of your supervisory team, if any of them did live along those routes. I would just be curious.

CHMN STAFFORD: Thank you.

MS. MARINEZ: Mr. Chairman.

CHMN STAFFORD: Mr. Robinson, I believe you were about to answer -- to say something before Member Gold asked his question.

MR. ROBINSON: Thank you, Chair.

I just wanted to get a clarification on

Member Little's question.

So Route 6 and D, that combination shares a double-circuit alignment from Stone Avenue all the way into Vine Substation.

Your question about double-circuit underground really would only apply from the Campbell intersection south into the Lester location; correct?

MEMBER LITTLE: I'm sorry. No. I was concerned -- I was just curious about what would be involved in physically in undergrounding the section along Lester avenue, where it would be double circuit. It's not --

MR. ROBINSON: Okay.

MEMBER LITTLE: If we were to select C -- 6 and D, it would not be double circuit along Campbell Avenue itself; correct?

MR. ROBINSON: Yes. It would be double circuit along Campbell Avenue also.

So, Clark, if I could get that pointer. Is that the right one?

MR. BRYNER: Yeah.

MR. ROBINSON: So if Route D and 6 were selected, there would be common double-circuit structures, one set of poles double-circuit conductor from Stone along Grant, east along Grant all the way over

to Campbell Avenue and then south along Campbell Avenue to Lester and then west into Lester and dropping into Vine. That would all be double-circuit configuration.

MEMBER LITTLE: Okay. I'm confused. I thought 6 would go from Kino up Campbell.

MR. ROBINSON: No. That's Route 1.

MEMBER LITTLE: Oh, okay. Oh, I see. Okay. I'm -- okay. Let me modify my question, based on my misconception, there to say if a route were selected that required double circuit and it were to be undergrounded, what would that physically look like?

MS. HILL: And, Member Little, I believe if you could hold your question --

MEMBER LITTLE: Right. That's fine.

MS. HILL: -- for Mr. Jocham --

MEMBER LITTLE: That's correct. No. I understand.

MS. HILL: -- on Friday, I think he'll be able to give a much cleaner, more concise answer than our company witnesses.

MEMBER LITTLE: Yes. I understand that. Sorry about that.

MS. HILL: No. That's fine. I just don't want to spend a lot of time if we can't answer your question very well.

CHMN STAFFORD: At least this way your witness on panel 4, the underground expert, has quite the preview of what questions that have already been asked that he needs to be prepared to answer when he finally takes the stand.

MS. HILL: I know. We've been holding questions for him all week so far, I think.

So thank you. We have experts because we're not. So --

MEMBER HILL: Mr. Chair, I have a question.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I really appreciate Member Gold's line of questioning because it illuminates how really challenging these different routes are in considering and what criteria you guys use to select them.

If we could go back to Slide 83 on -- yeah, that one.

So the preferred route, as Mr. Gold established with his line of questioning, is kind of least conflict with the city ordinances and affordable overhead.

MEMBER KRYDER: Nicole, could you speak into your microphone a little closer, please.

MEMBER HILL: I apologize, Member Kryder.

The line of questioning Mr. Gold had established is that it's kind of least in conflict with city ordinances, the preferred route, and affordable.

But what strikes me as the real challenge for us is that there's more public support based on this data for going down Campbell because it has less conflict in the neighborhoods.

Is that why you offered this alternative, or can you talk a little bit about that? I just -- yeah.

MR. BRYNER: Thank you, Member Hill. That's a very good question.

And so there are multiple factors that went into why we kept this on the table irrespective of the fact that it was within the Gateway Corridor. So from an engineering perspective we talked about that a little bit.

I know we have the weird little jog there coming off of Grant and Campbell, but other than that, as you'll see as we go into Route 1, going along Campbell is just -- it's a straight shot to Kino, and it's along major roads. You have a lot of setback to buildings. You're not in conflict with those. There are overhead utilities for much of the route. So there's a lot of reasons why.

But you have a lot of -- and you'll

probably see more of this. And I wish I could -- I wish I had a photographic memory and could remember how many comments there are for Route 1, but there are a lot of comments in opposition to that as well as in support of it.

So you kind of have this -- from a public perspective you've got a camp that says, hey, go to Gateway. As we met with countless neighborhoods throughout this process we've heard from many, Why don't you just use Campbell?

But at the same time we've heard from many, Stay away from -- you need to respect the City's ordinance and stay away from Campbell.

Now, you have some of these that, you know, they have their personal reasons for their preferences. Others have more of a community perspective for their preferences.

But from sort of the integrity of the process and following the data and letting that dictate what we selected, what we carried forward, what we eliminated, we felt like we needed to offer this as an option and share the facts around what was going on with this route and why we ultimately didn't select it as the preferred even though when you look at some of our criteria and even if you look at the table that we have

on the placemat, and you look at when you add the numbers up, it shows use Route 1.

But the data isn't -- sort of it guides our decisions.

MEMBER HILL: Sure.

MR. BRYNER: But it doesn't necessarily -- it's not the end-all, be-all.

MEMBER HILL: Right.

MR. BRYNER: And so we weighed that in, but in the end for the reasons I previously stated we didn't select Campbell as the preferred, but it we also felt like it would be premature for us to eliminate it.

MEMBER HILL: Yeah. Okay. This is tough. Thank you.

MR. BRYNER: Are we okay to continue?

CHMN STAFFORD: Please.

MR. BRYNER: Let's see. I think we left off on Slide 88, I believe.

So this was the simulation KOP 27. We already discussed that. At this point we drop into the Vine Substation, and that's really Route D.

So I just wanted to talk about some of the other factors. So land -- or existing land use plans in this area, again, we have Plan Tucson, the City of Tucson's general plan. And then we have several area and

neighborhood plans.

Of all these plans, same as we talked yesterday for Route B, only the University Area Plan includes any language with respect to the location of utilities.

And I'll make the same argument, TEP believes that we further the purpose of that plan by if Route D were selected, we would have a net reduction of 8.9 miles of overhead utilities within the University Area Plan area, and we would remove 29 poles. And we are consistent with the other specific plans.

CHMN STAFFORD: Look at the map here on -- over on 89.

The University Area Plan, is that -- I'm looking at the hash marks. And so does that run from Stone Avenue all the way past Campbell Avenue or is it -- what's the -- and I see the pink lines between Speedway and Vine. Is that -- that's got -- just below where the double hash mark is, that North University, is that part of the University Area Plan?

Is that all -- where's the -- I'm not clear where -- what's with the boundaries of the University Area Plan are.

MR. BRYNER: So, Chairman Stafford, you're doing a great job of reading the map and interpreting it,

but I'll make it just very clear for everybody. So the University Area Plan on the west side is Stone Avenue, on the north side is Grant Road, on the east side is off the screen at Country Club, and on the south side it's Broadway Boulevard.

And so that's also off of the screen.

CHMN STAFFORD: Okay. And then the hash marks where it's also the neighborhood plan in addition to the area plan?

MR. BRYNER: Correct. So you have overlapping the Jefferson Park Neighborhood Plan and the Blenman Vista Neighborhood Plan.

CHMN STAFFORD: Okay. So I'm just clarifying that the University Area Plan encompasses Jefferson Park.

MR. BRYNER: Yes, it does.

CHMN STAFFORD: Okay. I'm just making sure I got it all straight here. Thank you. A lot of information in these maps.

MR. BRYNER: There is. And if you have any suggestions for cartography, it's all yours.

CHMN STAFFORD: No. I think they're pretty well put together. I'm just -- there's so much information it's hard to just -- I want to make sure that I'm clarifying it and that I'm interpreting it and

reading it correctly.

So but otherwise it's -- it's apparently I am, so that means the maps are excellent.

MR. BRYNER: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I'm looking at your maps and I'm looking at your chart that you have on the bottom of this.

CHMN STAFFORD: Oh, the placemat.

MEMBER GOLD: Placemat. And I notice that you're not weighting -- weighting, w-e-i-g-h-t-i-n-g -- the options. You're treating every single option in your horizontal top column that all of those are of equal weight.

I don't know that that would be the best way to do this. I'm just giving you opinion now. I wonder -- not being an attorney and perhaps Ms. Hill can answer this better -- biological impact, everything gets a 1. Where is legal costs to challenge?

If the City says for Route 1 example, as you brought up, Mr. Bryner, Route 1 is on a Gateway Corridor. It's the most direct route. It's in a commercial area where you would expect telephone poles and tension poles and distribution poles. It would seem

that that would be the most logical place to put it, but I don't see anything that says legal cost.

Did you consider that?

Obviously you considered it. That's why you didn't choose that route.

What would the legal cost be?

MR. BRYNER: Well, I'll let Ms. Hill answer that, and then I'll answer some other parts of your question.

MS. HILL: Okay. Thank you, Mr. Bryner.

Mr. Chair, Member Gold, and as you recall from prior presentations, I think probably from other applicants as well as us in prior projects, Mr. Bryner will go through the siting study itself and the public outreach and how they went through several iterations of weighing factors differently in coming up with this and how they worked with neighborhoods to also weigh factors differently. So you might get a more fulsome answer through that as well.

But in terms of legal cost, there is, I think Mr. Bryner pointed it out, a plan, an ordinance compliance section on this chart that has some bit of weighting there.

We are most concerned about the timing if there is continued litigation. If the Committee were to

make the finding on the Gateway Corridor that we're requesting under 360.06(D), we're concerned that at least one intervenor, if not several, would continue litigation on that, and that in and of itself would cause what we consider to be an untenable delay in the project being built.

And so while there is a cost that probably could be guesstimated at that in terms of dollars and cents that the ratepayers would bear, the real cost is in the delay of the project.

And so I don't know how to quantify that. What you see instead is that that Gateway Corridor Zone, what we do is it's not the preferred route, and we ask for if you do choose it and choose to make the finding, that you also choose an alternate route.

MEMBER GOLD: So if I understand you correctly, the reason you didn't choose Route 1 is because of the expected legal delay that would make this project untenable?

MS. HILL: It was a significant consideration, yes.

MEMBER GOLD: So in reality when you weigh -- if you were to weigh this, you actually did -- when I look at communi -- com interference, is that the one --

CHMN STAFFORD: Plan ordinance --

MEMBER GOLD: Plan.

CHMN STAFFORD: -- compliance.

MEMBER GOLD: Oh, where is it? Yeah. That's why you -- why you put number 6 as giving it -- so, in effect, you did weigh it. And you simply said because of the legal ramifications this would make this whole project untenable.

MS. HILL: Yes. I would say that the -- if you look at a total number -- and I'm not a statistician, so you're going to have to forgive me.

MEMBER GOLD: Well, neither am I, so that's fine.

MS. HILL: Yeah. Yeah.

So Mr. Bryner can explain the weighting or scoring themselves, but I think that the legal point and the company point that we want to underscore to the Committee is that in making that consideration, we took the pressing nature of this project into consideration in choosing a preferred route.

And, you know, legal delay is legal delay. I'm a lawyer. You can blame me for it. But, I mean, there's a -- you know, I mean, it's just a reality of doing business. And so unfortunately, you know, we have to consider that.

MEMBER GOLD: I'm questioning that you're going to face a legal delay anyway because everybody wants this undergrounded.

MS. HILL: So, Member Gold, people that want it undergrounded I think there are two -- there are two issues here.

Number one is that the Gateway Corridor Zone itself is an ordinance that requires undergrounding, and this Committee has, you know, authority, as the Chair talked about, to make some findings that would allow us to go overhead.

And it is our position, however, that the preferred route does not require undergrounding except if you apply the special -- especially if you apply the likelihood of receipt of a special exception in the areas where we do a perpendicular crossing of the Gateway Corridor Zone.

And so as a result -- and obviously Underground Arizona has a different perspective on that, and the Committee is free to ask the City about their perspective on that.

In the event, however, that the Committee does find that either our preferred route is not in furtherance of the purposes of the area plans that it encompasses, we -- and/or the Committee is not

comfortable with the City's position regarding whether the area plans require undergrounding or not, then we are also asking this Committee to make the 360.06(D) finding for the preferred route to the extent that the area plans according to the Committee's belief require undergrounding.

So at this stage of the game you're correct, Member Gold, we have some limited options here to get this built.

MEMBER GOLD: Understood.

A quick question because I don't remember, and this is probably my memory because I'm older.

Does Campbell Avenue going north and south have high voltage power lines on it now?

MS. HILL: Member Gold, one of the things you'll see and we actually will point it out on the tour is it has distribution on it now. It does not have transmission.

MEMBER GOLD: Thank you.

MS. HILL: Uh-huh.

MR. BRYNER: Okay. And to that I agree with everything that Ms. Hill just shared as far as how we were -- our thought process and some of the -- I guess the non -- nonanalytic factors that we weighed in into our decision there.

But one thing you're not seeing on the placemat there that is included in our siting study -- and this comes from if you look at our siting study is Appendix B-2 -- sorry, Exhibit B-1 of TEP Exhibit 1, which is our application in Appendix D of that.

And there's a table that's very similar to the table that's on the placemat, but it includes some other columns that are not on the placemat. And one of those is a weighted criteria looking at the things that were -- were most relevant as you pointed out.

And you haven't seen me talk about biology because it's essentially a nonfactor on this project. So why would it weigh the same as historic resources, which are a large factor, or compliance with some of the local plans, which are large factors?

And so we did look at that and include that, and that was considered in our -- in our decision-making process as well.

MEMBER GOLD: I sort of saw that when I noticed that not only is plans in compliance for Route 1 of 6 but also commercial interference because Campbell Avenue is a commercial -- mostly commercial avenue. The other areas are predominantly not.

MR. BRYNER: And just to correct you, it's not actually commercial interference. It's

communications interference. That's probably a loss in translation there.

MEMBER GOLD: Next time spell it out. Just kidding.

CHMN STAFFORD: Well, what it doesn't stand for is Commission interference.

MEMBER GOLD: If it is communications interference, just out of curiosity's sake, what does that mean?

MR. BRYNER: So communications interference, that's one of the factors that is in the statute required to be looked at and factored into the decision of the Committee.

So some communication lines -- and I'm not a communications expert, so I'm going to translate it to my understanding. But some communications are point-to-point, and especially microwave communications have a very specific, small path where that communication signal travels through, and anything that breaks that path can make that obsolete.

And so it's a real thing that we need to watch out for --

MEMBER GOLD: Understood.

MR. BRYNER: -- if we break that specific path.

And then, as we all know, if you drive under a highway voltage line, if you've got the radio going, a lot of times you'll get nothing but static for a minute, so there are other communication factors as well.

MEMBER GOLD: And you're also considering microwave towers and cell towers and things like that are probably heavy on Campbell Avenue?

MR. BRYNER: Correct. And primarily for those other communications types any interference is very limited to a small diameter area. And so as long as we stay out of that we're okay.

MEMBER GOLD: And so it appears to me that you actually are weighting these different choices, and that's the reason that Route 1 was not a preferred route.

MR. BRYNER: So we do -- we do weight them. Not on what you're seeing on the placemat there, but we do weight them in our siting study.

MEMBER GOLD: Yes. Well, now it shows up now that that's not commercial, but it's communications. That's a different story. Thank you.

MR. BRYNER: Yes.

BY MS. HILL:

Q. Mr. Bryner, are you ready to continue with Route D or pass it to Mr. Robinson?

A. (Mr. Bryner) I've still got a couple things.

So moving on to Slide 90. This talks about the Gateway Corridors, which we've talked about extensively already, but we do have the perpendicular crossing of Route D at Oracle Road, and we do parallel the Gateway Corridor on Campbell Avenue for a half of a mile.

And then with respect to other overlay zones the same overlay zones actually apply here as applied for for Route B that we already went over. And the same answer that we wouldn't be inconsistent with any of these overlay zones.

And then historic districts, we do have one additional historic district that comes into play on Route D, and that's the Catalina Vista historic district. It's on the east side of Campbell Avenue, but we would be, again, on the major road.

CHMN STAFFORD: And this is on Slide 92?

MR. BRYNER: Sorry. Slide 92, yes.

And Route D would not -- would not result in any -- any change in that designation from a historic district.

And the last thing, as far as our cultural resource study was concerned here, we did find three sites that were within the vicinity of Route D, two of those were eligible, one was not. One of those eligible sites was recommended that we have a monitor present if

we had any ground disturbing activities within -- within that vicinity.

CHMN STAFFORD: And that's what SHPO recommended?

MR. BRYNER: So that wasn't -- so we have not done any formal consultation with SHPO up to this point. I believe that's one of the conditions that we're including in the CEC that is a result of some of our informal consultation, if you will, some more discussions that we've had with SHPO up to this point, and so we would do that and get their concurrence.

CHMN STAFFORD: Cool. Thank you.

MR. BRYNER: And then as far as low-income areas, so this one -- actually, this Route D, looking at Slide 93, it does avoid some of the low-income areas by crossing over to Campbell Avenue, which is, as we've discussed, some of the neighborhoods east of Campbell Avenue are not within the low income -- are not -- are not designated low income per the criteria that we used. So Catalina Vista, Blenman Elm, Sam Hughes, those neighborhoods are not within low-income areas. And so it does reduce some of the areas where we cross -- cross into low-income residential areas.

And I believe with that I'll pass it over to Mr. Robinson.

MR. ROBINSON: Can I -- is that one -- okay. Yeah.

So we've discussed most of the items that I'd like to point out. But just in review, in common pathways with -- with Route 1, D shares a common route from Vine Substation out to Campbell Avenue. It also shares a common route with Route 6 from Stone Avenue to Campbell down to Vine in Lester and then into Vine Substation.

The only other thing that we haven't talked about already during the description of this route is that along Grant Road from Santa Rita to Campbell where the residential properties come up closer to Grant Road the way it is currently configured we would likely need to get private easements for some overhang and wind blowout depending on which routes were selected and how we could avoid them in that segment of line.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm just curious. How do you find the public reacting to overhead easements? It kind of doesn't impact their property.

MR. ROBINSON: So we find that most of the public individuals are good to work with. There are some who have high opposition to the line or the project that

are a little bit more difficult.

And from a -- from a closure perspective we -- Ms. Hill, do you want to answer about what we think would happen for property acquisition and easement?

MS. HILL: We haven't -- I think, Mr. Robinson, you have the latest and greatest on that.

But, you know, I would say that generally when we're dealing with any sort of easement, it varies based upon the homeowner that we're dealing with or the property owner that we're dealing with.

There isn't -- and we agree that, you know, typically if it doesn't actually affect putting something on their property, you have a little bit more, you know, agreement. But it really depends on the individual property owner.

MEMBER LITTLE: Thank you.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: The first line says this is the third shortest route and the third most economical route.

MR. ROBINSON: Yeah.

MEMBER HILL: But I'm looking at the chart. I think it's the second most economical route. Is --

MR. ROBINSON: That's correct.

MEMBER HILL: Okay. I didn't know if I was missing something there.

MR. ROBINSON: So those stats were lined up before all of the undergrounding costs were associated and added to the costs.

MEMBER HILL: Okay.

MR. ROBINSON: These notes are a little bit old. Yeah.

MEMBER HILL: But these costs are not undergrounded; right? The cost for this --

MR. ROBINSON: The cost of undergrounding the distribution along --

MEMBER HILL: Oh, okay.

MR. ROBINSON: -- were not included in the costs when those notes were made.

MEMBER HILL: The distribution, not the --

MR. ROBINSON: Yeah.

MEMBER HILL: Not the transmission line. Okay.

MR. ROBINSON: So the most accurate table to refer to is the costing table that is part of your placemat and part of the exhibits.

MEMBER HILL: Exhibits. Okay. Great.

MS. HILL: All right. Thank you.

And Mr. Chair, Mr. Bryner, do you have

anything additional with Route D?

MR. BRYNER: No. I was just consulting with our right-of-way experts on -- on the acquisition of easements, so I can elaborate if you'd like any more information, or if Mr. Robinson's answer was sufficient, then we'll leave it at that.

MEMBER LITTLE: My curiosity was the difference if people really understand what overhead rights are versus -- I mean, versus having a pole in their yard?

MR. BRYNER: Sure. And from our perspective, I mean, for us it's the same right to have the pole or just a wire crossing your yard. And for either place then we'll negotiate the easement with them, and we'll start the negotiation at fair market value.

MS. HILL: All right. Thank you, Mr. Bryner.

Did you have anything additional, then, on Route D?

MR. BRYNER: No.

MS. HILL: And, Mr. Robinson?

MR. ROBINSON: No. I don't. Thank you.

MS. HILL: Mr. Chair, we're about to look at alternative Route 1. I don't know when you planned on taking a break. If you were planning on if you wanted to

break now for the court reporter or if you want us to go ahead and proceed.

CHMN STAFFORD: Well, I think this seems like a logical stopping place. We're almost at 90 minutes. We're at about 80 minutes. So I think we can go ahead and take a break a little early and come back in about 15, 20 minutes.

MS. HILL: Thank you.

CHMN STAFFORD: All right. We stand in recess.

(Recess from 10:20 a.m. to 11:16 a.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. Hill, I believe you were going to begin discussing Route 1.

MS. HILL: Yes. Thank you, Mr. Chair. We are.

BY MS. HILL:

Q. Mr. Bryner, are you ready to proceed with Route 1?

A. (Mr. Bryner) I'm ready.

Q. Okay. Please proceed, then.

A. (Mr. Bryner) Okay. So moving on to Slide 96 and 98 which cover Route 1 in TEP Exhibit 8.

So this is the second half of what I'll call the

Campbell Route. And before I get into the description, let's just cover some of the basics of it.

So it's approximately $11.8 million to build this route. As you'll see it's the shortest, by far the shortest route between Vine and Kino at just 2.9 miles in length. It does cross through just under a mile of residential all of which is considered to be lower income.

About .6 miles of historic districts. And as you'll see in some of the simulations and you'll see when we go out on the tour, it does have existing overhead utilities for the majority of the route. And as a result we would place three circuit miles of existing overhead distribution lines underground and just under nine miles of communication wires would be moved underground or relocated.

I alluded to the comments that we received on Route 1 when we were discussing Route D, but if you look on Slide 96 you can see the breakdown of those comments, and it was actually just three comments in opposition.

I do want to caveat that with these are comments specific to these routes after we'd identified the routes.

If you look through the 500 or so comments that we received, there were quite a few who didn't really

care for going down Campbell or if you look in those that have been placed in the docket since we filed the application, also quite a few who don't seem to favor going down Campbell either. And those comments, again, were primarily against the use of Campbell.

But we received 44 comments that were supportive of using alternative Route 1. So because it had less impact on neighborhoods, uses the arterial road, it's the most direct which leads to being the shortest and also the least costly. So for those reasons amongst others it was supported.

Turning your attention now to Slide 98 on the left-hand screen, I'll describe this route which is unique from the others that we've looked at.

So it does share -- shares the same path as Route D from Vine over to Campbell, so that same Lester Street to Ring Road corridor.

Then going down Campbell Avenue, we've already talked about the Banner UMC campus located on the west side. Located on the east side of the street is the Blenman-Elm neighborhood, so that's -- well, the neighborhood itself is residential.

Directly along Campbell you do have a mix of -- there's a school there, there's a church there and then you have some commercial uses with a little bit of

residents fronting Campbell Road.

As you move across -- let me not forget about the visual simulations I have here.

So before we jump across Speedway, we do have a visual simulation, this is Slide 99, key observation point 20, located on Campbell just north of Speedway on Helen Street.

And in this, looking at the current condition, these are buildings associated with either the hospital or the university, and some of the medical buildings associated with the university.

And then on the east side or the right side of the photo you see some of those residents. You do see -- we do have existing overhead distribution in this location. And we would plan to remove all of that existing overhead distribution, place that underground, and then place our 138kV line along -- we depict it on the west side of the road in this location.

So as we move further south now, going back to Slide 98 and the route map, so once you cross Speedway you've really gotten now to where the University of Arizona is located fully on the west side of Campbell, and then now you have the Sam Hughes neighborhood located on the east side.

There are some commercial uses near the

intersection with Campbell and Speedway, but south of that, it's primarily residential on the east side and then your institutional uses associated with the university on the west side.

In the key observation point 14 which is Slide 100, this is on University Boulevard looking east towards Campbell Avenue. This is along -- it's the mall, one of the main entryways into the university. And there are existing distribution lines going along Campbell in this stretch that would be removed and placed underground and replaced with our 138kV infrastructure.

This photo simulation key observation point 13 is just a little bit south of where we were at. This is on Campbell at 6th Street looking north. If you look, you can see some of the athletic facilities associated with the university and some of their associated lighting, stadium lighting for that.

And the University of Arizona, the football stadium is located just out of the frame to the west, and the basketball stadium, that might actually be the building for the basketball, the McKale Center. Right there.

So in this area, we don't have any existing overhead utilities on the east side. On the west side, there are a couple of poles that I believe, I don't know

the exact configuration, but I believe that they're not paralleling the street, rather running perpendicular and heading into the development.

A. (Mr. Robinson) Yeah, that's correct. So, Clark, you can see at the top of the pole that's just above the palm tree, there's a buck, and that distribution pole crosses -- that distribution circuit crosses Campbell Avenue and continues to the east.

A. (Mr. Bryner) So from this point looking back on Slide 98 now, from this point we kind of leave the university and now you enter into the Rincon Heights neighborhood on the west side of the road.

And, again, Sam Hughes is still on the east side, so now you have residential uses fronting Campbell on either side of the road up until you get to Broadway Boulevard.

Key observation point 10, Slide 102 is at the intersection of Campbell Avenue and Broadway Boulevard looking look north. Again, in this location we do have existing distribution overhead. And this is another place where we failed to remove it in the simulation, but that would be removed and placed underground if this route were selected. And then we would add in our new 138kV line.

You may or may not be able to tell from this

picture, but we are crossing from one side of the road to the other at this location, so we would be coming from the east side of the road and then transferring over to the west side, at least per our preliminary design.

Before I jump into discussing this simulation that we're looking at there, let's go back to the map.

So this is kind of where we were just at, the intersection of Broadway and Campbell Avenue. At that point Campbell actually changes and becomes Kino Parkway going south from here, and Campbell Avenue, well, there is still a Campbell Avenue, but it's not the main arterial road anymore. It's now the road that you're seeing in the visual simulation before you.

And that crosses -- well, sorry, it's not the road you're seeing. We're looking on a side road. It's a road similar to the road that we're seeing right now. And it goes through an industrial area, so this visual simulation key observation point 6 is looking to the west towards Campbell Avenue and it's a non-Gateway route.

So, again, going back to this, Campbell Avenue as it becomes Kino, that is the Gateway Corridor and then Campbell Avenue proper south of this location is no longer part of that Gateway Corridor Zone.

And so in the visual simulation again on key observation point 6, these are existing 46kV poles, and

our line will be located, again we're on a road that running perpendicular to where we would run, and in the simulation you can see our proposed line running right there along Campbell Avenue. And so the existing overhead utilities would remain.

I jumped real far ahead in that simulation. So let's jump over to the map and talk about what happened here.

So that last key observation point was right in this area. The line does cross over a road, Chico, which is a major drainageway for this part of Tucson. We'll see some pictures of that here in a bit.

Continues south again along Campbell Avenue, non-Gateway Campbell Avenue through a largely industrial area, crosses over the Aviation Highway, Arizona 210 and the railroad tracks.

I'm sure Mr. Robinson will talk a little bit about that. Into another industrial area on the south side of that highway and kind of winds its way along a couple of streets through here to get over to Martin Avenue which is what we're seeing in our photo simulations. So let me just talk about that real quick.

So key observation point 1 is on Martin Avenue looking north. So this is in the Pueblo Gardens neighborhood and just north of the Kino Substation.

There is a flood retention basin on the west side of the road, and on the east side of the road you have residential, single-family residential homes. There are no overhead utilities in this area. We would plan to put our 138kV line on the west side of the road furthest from the homes and adjacent to that flood control basin.

And literally just south of where this picture is taken is where the Kino Substation is at.

So jumping to Slide 105 and talking about some of the area plan -- or existing plans that are pertinent to the project, the same ones that we've talked about before primarily still apply here being the University Area Plan, that mentions -- that has language with respect to the location of utilities.

But we have an additional neighborhood plan that does have language with respect to the placement of utilities now here, and that's the Sam Hughes Neighborhood Plan.

And what it says specifically, and I'll quote this, is that they "encourage that new or improved utilities be installed underground within the neighborhood and on the surrounding arterial streets."

So similar to -- and the other area plans and neighborhood plans that we haven't discussed yet, they're silent on the location of utilities.

And so similar to what I've shared with the University Area Plan, we do believe that the project furthers both the University Area Plan and the Sam Hughes Neighborhood Plan.

The purpose of those plans, by resulting in a net reduction of nine and a half miles of overhead utilities within the University Area Plan area and 67 poles. And you'll note the Sam Hughes Neighborhood Plan does overlap the University Area Plan. And four of those overhead miles would be within the Sam Hughes Neighborhood Plan, and 40 poles would be removed within that neighborhood plan.

And we believe that Route 1 would be consistent with all of the other specific plans.

BY MS. HILL:

Q. And Mr. Bryner, I would just like to make it clear since we're on this line about the finding that we are requesting the Committee for Route 1 based on the Gateway Corridor Zone.

So is it the entirety of Route 1 that the Committee would be considering for a Gateway Corridor Zone for a finding under 40-360060?

A. (Mr. Bryner) That's correct. Well, it's -- it doesn't cover the entire route. I'll say it covers from Ring Road to roughly Broadway Boulevard, where we would

be located parallel to the -- parallel with the Gateway Corridor Zone.

Q. And I'm sorry, you might have said this and I missed it, but approximately how many miles is that? Can you --

A. (Mr. Bryner) It's a little over a mile. About a mile and three quarters.

Q. Okay. Thank you.

A. (Mr. Bryner) So looking specifically at where we do cross or within the Gateway Corridor, so what I just mentioned, but we do have a perpendicular crossing as well, Broadway Boulevard. So it's within both Gateway Corridor Zones at that point.

CHMN STAFFORD: And Slide 106 is the one that shows the Gateway Corridors?

MR. BRYNER: That's correct. And here, you can see clearly that that Gateway Corridor does veer from Campbell Avenue to Kino Parkway, and even though we stay on Campbell Avenue, again, that portion of Campbell Avenue south, more or less south of Broadway down to 36th Street is not part of the Gateway Corridor Zone. And so no special exception, no -- there's no application of the zoning -- of the UDC in that area for the Gateway.

As far as other overlay zones, we do have the Jefferson Park Neighborhood Preservation Zone that

we've discussed previous. We would not be inconsistent with that. No other overlay zones apply.

And the Route 1 does cross through or adjacent to four historic districts, a couple of new ones include the Sam Hughes Historic District, the Blenman-Elm Historic District and Rincon Heights Historic District. Route 1 would not have any effect on those historic district designations.

And as far as the results of our Class 1 cultural resource study that we conducted, we did find that there was one site within the vicinity of Route 1. It was found to be not eligible to be listed on National Register of Historic Places, and so no monitoring was recommended.

And as far as the low-income areas, Route 1 actually avoids the -- it goes through the fewest numbers of low-income areas of any of our routes because it does utilize Campbell Avenue and goes east of some of those areas that are designated as low income.

MR. ROBINSON: Oh, so to talk a little bit more of the details around engineering. As you know along Campbell Avenue it's a major arterial road, so along most of that area, there's plenty of space to put an overhead transmission line.

There are a few commercial buildings along

that route that would require us to cross at a diagonal to the other side of the street while we're passing and go back and head north across that area.

In addition to this, we cross the railroad and Aviation Highway at a slight angle, so these few structures at that crossing point along Aviation and the railroad tracks would be the tallest structures that we have in our application in that area of 120 to 1:30 feet tall to cross those facilities.

And then, finally, the last thing I would share with that is the route comparison where we're sharing along Lester from Campbell into Vine; right? This route would share along -- have common with Route D and have about a quarter of a mile of double circuit pathway into Vine Substation.

MEMBER FRENCH: Mr. Chairman.

CHMN STAFFORD: Yes, Member French.

MEMBER FRENCH: Mr. Robinson, just some clarification on the avoiding the commercial buildings. Is that just due to safety issues and clearance distances because those buildings are higher than the surrounding buildings?

MR. ROBINSON: Yeah, that's correct. The NESC code, National Electrical Safety Code, requires us to maintain a certain amount of space between the

electrical conductor and the building itself. So in order, where the building setbacks are near the street side, in order to maintain that clearance we have to cross to the other side of the street.

MEMBER FRENCH: Thank you.

MR. BRYNER: Grace, can we queue up the virtual tour at Route D at one and a half time speed?

Thank you.

BY MS. HILL:

Q. Okay. And just to be clear Mr. Bryner, this is a virtual tour of Routes D and 1; correct?

A. (Mr. Bryner) That is correct.

So this is where we left off yesterday at Kino Substation, but we're going to flip back over to DeMoss Petrie.

So we're up at DeMoss Petrie. You see this is our 138kV yard right in the front. Going over the generation, again, the 40-foot-wide corridor that we're going to narrow down. So pay no attention to the green lines but they will indicate the general area.

So this gives you a better -- we're going a little slower so you can see the commercial uses along Grant Road in this area. It is a wider road, plenty of setback to the buildings.

It does go through various neighborhoods, but

we're not in the residential portions of those neighborhoods along this road.

Crossing over Oracle right there.

We're just crossing Stone.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Member Richins.

MR. BRYNER: Can you pause, Grace?

MEMBER RICHINS: Mr. Bryner, as we discussed double -- double sets of wires, is this depicting the double sets of wires should this alternative be chosen?

MR. BRYNER: So the virtual tour is not simulating both wires. It's just simulating the single circuit.

MEMBER RICHINS: Okay. And at what point does the double set of wires begin? Was that at Stone? Confirming that.

MR. BRYNER: So it depends on which routes you select.

MEMBER RICHINS: Well, this is D-1 we're looking, so let's assume this route.

MR. BRYNER: D-1, you would only have double wires along Lester and Ring, and that area just to the west of Campbell for about a third of a mile.

MR. ROBINSON: So we haven't gotten to that

point yet in the virtual tour.

MEMBER RICHINS: I thought it started along Grant.

MR. BRYNER: I think you were referring to a combination of --

MEMBER RICHINS: Different combination.

MR. BRYNER: C-6.

MR. ROBINSON: D-6.

MEMBER RICHINS: D-6. Okay.

MR. BRYNER: D-6. There's 24 different route combinations.

(Reporter admonishment.)

MEMBER RICHINS: I am just laughing, go ha, ha, ha, ha, it will be fine. I apologize.

MR. BRYNER: Grace, you can go ahead and play. Thanks.

So we're coming up on Euclid and 1st. It's Euclid on the right side, 1st on the left side. And now we're coming up -- now it's the Jefferson Park neighborhood. Right here we've looked at Park Avenue is the road that's coming up that we're crossing, that's where the preferred route takes that and heads south, whereas Route D continues along Grant.

You can see the homes that are located along Grant in this area, and you can see that Grant Road

is now more narrow than it was west of here. Again, it has not undergone the public improvement project just yet. Some of those -- there were a number of homes that were removed as part of the public improvement project out west of here.

BY MS. HILL:

Q. Mr. Bryner, could you pause for just a moment?

So is it anticipated with the widening of Grant that we would have to -- the building of this line would be completed in time for the Grant widening or would there be some additional extra construction that would occur because of the public improvement project timing versus our project timing?

A. (Mr. Bryner) I would say we would try to coordinate all of our efforts with the City of Tucson so that we could build our poles once and not have to relocate those poles when the City is ready to go.

Q. Thank you.

A. (Mr. Bryner) So this is kind of that funky intersection at Campbell where we have to cross to the east side and then back to the west side. So you have an old movie theater on the east side of Campbell, going down Campbell again, here you have the Catalina Vista neighborhood on the east side or the right -- or left side of the picture. Jefferson Park on the right side of

the picture.

You can see those frontage roads adjacent to Campbell in this area for residential traffic.

And there's the hospital in your view, you can see the park between Ring Road and Lester. Again, we're depicting the line going down Lester in this spot, and this is the location, Member Richins, where it would be double circuit and we modeled it, even though we're showing you the combined route, we only modeled it as one route at a time so we don't show the double circuit. What would change would be you'd have those extra set of insulators and an extra three wires.

So now we're just reversing back along Lester and Ring here, over to Campbell Road -- Campbell Avenue, sorry.

The hospital buildings on the right, you can see the church, school over on the left side of Campbell, going through the Blenman-Elm neighborhood in that area. You start seeing a lot of university buildings or buildings associated with the university coming up on the right side.

Coming up on Speedway here. Speedway Boulevard. We would cross that and then you can see we would have to likely jog to the east side for one span to get around some existing uses that are occurring on the west side.

This is the University Mall where you see on the grass, you can see the McKale Center, the stadium, some of athletic facilities.

Coming up on 6th Street crossing right there, we had photo simulation we looked at, and now we've got the Rincon Heights neighborhood over on the right side of the photo, still passing the Sam Hughes neighborhood on the left side.

Now we're coming up on Broadway Boulevard, you've got largely commercial uses on this area on both sides of the road. We jump to the east side of Campbell and now you move into an industrial area as Kino Parkway takes over what was Campbell Avenue and becomes the Gateway and Campbell Avenue you can see becomes a lesser road.

And in this area we do have overhead throughout this area that would be removed. There's some 46 that would be removed and retired. Distribution that would be placed underground.

Coming up on to the Aviation Highway and the railroad, and you can see that large bridge, that's 22nd Street crossing over Aviation, the highway. And the railroad, that's where we'd need those taller structures.

Over here more industrial area, railroad yard off to the left. Some mailing facilities and things off

to the right. Kind of do some interesting jogs to get through this area.

Q. Mr. Bryner, can you explain why you have to do those jogs on this route?

A. (Mr. Bryner) Well, we, it's basically the way that land has been developed throughout this area, it's oriented in different ways and for us to do a straight line -- we love straight lines -- but in order to do that we would have to demolish some buildings and we don't want to do that. We want to work with the existing land uses and we'd like to be located in road right-of-way wherever possible and that necessitates kind of a zigzag pattern through the roads in this area.

Q. Thank you.

A. (Mr. Bryner) The road we're coming up on now is Martin Avenue. Again, we had that simulation that we looked at. You can see the flood retention basin on the right of Martin, the Pueblo Gardens neighborhood on the left of Martin.

Q. And Mr. Bryner, wile you're going down and showing Martin, can you explain to the Committee the conversations, any conversations that occurred with Pueblo Gardens specifically while they're looking at this about the location of the line down Martin?

A. (Mr. Bryner) Sure. So, and this is a great

view to show that on. So Pueblo Gardens, we met with their neighborhood. They were a neighborhood who accepted our invitation to go and meet with them specifically. And they had quite a bit of -- quite a few concerns on our first -- our first attempt at identifying a route.

One of the routes that was being considered was the use of -- this is Campbell Avenue right here, and you can see it splits off and there's a large median with a park in it through that area. Which from a siting standpoint that's very exciting, looks like a lot of space for a great place to put a transmission line.

Well, from a neighborhood perspective, that's a special place for them. They really didn't appreciate a line being sited down there. So when we identified the opportunity to put it on Martin on the outside edge of the neighborhood and adjacent to that flood retention basin, they were, I don't know if I'll say ecstatic, but they were supportive of the idea.

Q. Thank you.

A. (Mr. Bryner) And then crossing over 36th Street into the Kino Substation.

And that's the end of the virtual tour for Route D-1.

MS. HILL: Mr. Chair, we're about to turn

to alternative Route A if that's agreeable, given the timing. I don't know what scheduling you have in mind.

CHMN STAFFORD: Please proceed.

MS. HILL: Okay. Thank you.

BY MS. HILL:

Q. All right. Mr. Bryner, are you prepared to present Route A to the Committee?

A. (Mr. Bryner) Yes.

Q. All right. Please proceed.

A. (Mr. Bryner) So these next ones I'm not going to combine routes, so we'll talk about the remaining two routes between DeMoss Petrie and Vine and then we'll move on to a discussion of the remaining routes between Vine and Kino.

So there's going to be a lot of similarities between those routes to the routes that you've already seen, so I will not -- I'll try not to duplicate myself too much.

But Route A, the total cost of this would be about 7.6 miles -- $7.6 million. It would be about 3.2 miles in length. Half a mile of residential land use. It would cross through all of that considered low income. Also within a historic district.

Utilizes less overhead utility corridors, and some of the routes we've looked at previous to this.

About two miles. And as a result we would relocate 1.7 circuit miles underground and about 6.9 miles of overhead communication.

As far as feedback specific to Route A from the public, we received seven comments in opposition to this route.

The vast majority of those were concern about going through a neighborhood and specifically you can see the neighborhood we run through is Jefferson Park. And I'm not sure what folks were thinking on using Campbell because we're not actually located on Campbell for this route.

CHMN STAFFORD: If you look on the map on Slide 115.

MR. BRYNER: Yes. Yeah, if you refer to the map on Slide 115, we -- this route uses Vine Avenue. Does not go on to Campbell Avenue at all.

So that brings me to really what I want to talk about on this route. The only difference between Route A and Route B and Route D is where it cuts off of Grant, and Route A continues down Grant past our preferred Route B which drops south on Park Avenue.

We continue on Grant similar to Route D, but then instead of continuing over to Campbell Avenue, we drop south on Vine Avenue.

And Vine Avenue is a residential road through the Jefferson Park neighborhood. There are no overhead utilities along that road today, but it is the most direct route into the substation.

And I've got a simulation -- oh, forgot to talk about the comments in support of the route. Let me just touch on that real quick.

So there were 52 comments in support of this route. And the vast majority of those were, again, there's contradictions in the support and against, because it's all a matter of perspective, and so it was, least impact on neighborhoods was one of the large contributors to this.

Most direct, which I would say is true. And it does maximize the use of arterial roads, but as I just mentioned, Vine Avenue is not an arterial road; it's a residential road.

And as you'll see in the visual simulation on Slide 116, key observation point 32, that means that you have some smaller setbacks. The road is not nearly as wide as we've seen in some other areas.

And there are no existing overhead utilities -- well, there are no existing overhead utilities that are parallel with Vine Avenue. You can see some crossing perpendicularly. Most of the utilities

in this area, or most of the homes in this area are served off of overhead utilities within the alleyways in the back lots of these homes.

And this is a view that should look familiar to you. We had a -- this is key observation point 26, Slide 117. This is the same view that we looked at associated with our preferred Route B as it dropped into the Vine Substation.

But with Route A, rather than coming in from the south and passing the University of -- the U of A medical substation right here. We would come in from the north, and you can see the wires dropping into the substation.

Again, the after right here isn't necessarily what it's ultimately going to look like, because once we're able to retire the existing substation, these 46kV lines here would all be removed and there is no distribution infrastructure in this case, so you would have no poles in this area.

All right. As far as existing plans for this area, these are the same for -- as were affected by routes A and D, so I won't go over that in any more detail.

Gateway Corridor Zones affected the same as Route A and D where we would have that perpendicular

crossing on Oracle Road, and we believe the special exception that we would be able to get a special exception for that under the City's process.

As far as other overlay zones, again, the exact same as for Route A, and we believe that we would not be inconsistent with any of those zones with Route A.

Pertaining to historic districts, again, same as Route A, we would go through -- we would cross over the Miracle Mile Historic District and through the Jefferson Park Historic District, but we would -- Route A would not result in any -- in the loss of that designation.

And there were, you know, from our historic district, you know, from our class 1 study that we did that was the exact same sites that were in the vicinity of Route A.

And as far as low-income areas, again, very similar to -- sorry, did I say Route A on the last one? Same as Route B. We are on Route A. The cultural resource sites are the same as Route B.

And as far as the effect on low-income areas, Route A would roughly have the same impact as Route B on the low-income areas, but it would go through slightly less distance of residential areas throughout this area, because we do stay on Grant Road rather than

cutting down Park Avenue and across Adams through the more residential land use areas for a longer distance.

MR. ROBINSON: So Clark has covered most of the details associated with this route already that we've talked about on several of the other routes. But I just wanted to point out a few things.

The residential street, Vine Avenue, is truly a residential street. It's fairly narrow. We'll have the 138 line on the street side, but we may need to have residential overhang aerial easements from the residents depending on the span lengths and the blown-out conditions for the conductor.

Also want to point out that Route A would share a common route if Route A and 6 were chosen, Route 6 intersects with Route A and is common from Stone Avenue from Grant, along past Park, all the way to Vine Street, where Route 6 continues over to Campbell down into Lester Ring Road, and then into the substation.

So it would be a common location from Stone and Grant over to Vine Avenue with Route 6.

MR. BRYNER: Grace, could we queue up Route A.

MEMBER HILL: Hold on, I just want to ask one -- oh, let's do this one. Let's do the tour.

CHMN STAFFORD: Member Hill.

MEMBER HILL: I'm good.

MR. BRYNER: Okay.

So familiar view at the DeMoss Petrie Substation. It will look a little bit different than this tomorrow when we go out on the tour, because we have done quite a bit of construction out there on our new GIS substation.

But TEP owns all the land south to Grant Road so we'll go through all of that land to get to Grant Road.

I'll just let you take in the view until we get to something we haven't seen yet.

BY MS. HILL:

Q. Mr. Bryner, is it crossing over Oracle Road right now?

A. (Mr. Bryner) Yes, that was the main road we just crossed was Oracle Road.

And the road we're coming up on is Stone Avenue. So, again, there's certain route segments that we'll -- we'll go to Stone.

And this major road is 1st Avenue and Euclid Avenue. In Tucson we love to change the names of roads.

So there's Park Avenue that we're passing over right now, just as a frame of reference. And you can see the difference in the PI, public improvement project,

where it's been done, where it hasn't been. Right there is the transition.

As we continue to the east and then we'll make a turn down Vine Avenue. So now we're entering into the Jefferson Park on Vine Avenue, you can see much more narrow road, residential street, single-family residence on either side of the road.

I will just highlight, as you can see as we pass this church on the right-hand side, you'll see some of those wires drop off. Those are dropping to the east where we do have a 46kV line that comes in down that alleyway today. And goes into the U of A medical substation. Again, we're representing the wires there and the ultimate configuration that would all be removed.

And I think that's the end of Route A.

Q. Thank you, Mr. Bryner. All right. So I think we're up to alternative --

A. (Mr. Bryner) I think Member Hill has a question.

MS. HILL: I'm sorry.

MEMBER HILL: That's okay. No worries. So this is the least expensive route, but it's not your preferred -- least expensive and arguably most direct. But least expensive route, but not the preferred.

You prefer Park to Adams, which is just a

little bit more expensive. Can you just compare those two?

MR. BRYNER: Sure.

MEMBER HILL: I think you kind of talked about it, but it just would be helpful to hear the direct comparison.

MR. BRYNER: Yeah, and I'll say, you know, as I went over the comments right there, and I think it was 52 comments in support of Route A. I don't know what it was for Route B, but it was fewer than that.

MEMBER HILL: Yeah.

MR. BRYNER: I'll say that represents part of the story. So those are comments that after we identified these routes that people made specific to one route or another. But prior to introducing these alternative routes, we had several open houses, met with neighborhoods, asked for comments and we received a lot of different comments.

And I would say a lot of comments that we did receive probably from the Jefferson Park area were they really didn't like going down Vine Avenue. As you can see, Vine Avenue is a residential road.

Park Avenue is a collector road, so it's in a major street, but it is, you know, you expect to -- you expect to see more overhead infrastructure,

infrastructure in general, or more major roads than you do on residential roads.

So it fits better with the character of the existing land uses on Park Avenue, better than it does on Vine.

So that, along with public opinion weighed in, also Park Avenue does have the existing 46kV line along it, and while Adams Street does not, in the alleyway just behind Adam Street, it does. And so we felt like we were utilizing where those homes, businesses, they were used to having this infrastructure there. It's already there today. And that's going to go away and will be replaced with a like infrastructure. So it was less of a change.

MEMBER HILL: Okay. Thank you. That's helpful.

BY MS. HILL:

Q. Okay. Thank you, Mr. Bryner. Are you now ready to proceed with presenting alternative route, I think it's C, to the Committee?

A. (Mr. Bryner) I'm ready.

Q. Okay.

CHMN STAFFORD: What's your time estimate to cover Route C?

MR. BRYNER: I don't know -- oh, go ahead.

MEMBER HILL: It depends on how many questions I ask.

CHMN STAFFORD: I'm trying to kind of gauge how hungry everyone is, if you want to take a lunch break before we start C or try to get through C before we take lunch. Any members have a preference?

MEMBER KRYDER: Let's proceed.

CHMN STAFFORD: Excellent. Let's go along with the Route C, please.

MR. BRYNER: Okay. Excellent. We'll see if we break the record that we did with A.

All right. So Route C, it is different, so there are some distinctions here that may cause it to go a little longer, but I'll do my part. We'll see if you do yours.

So alternative Route C is about $9.7 million. It's about 4.2 miles in length. It does go through less residential areas, .7 miles. All of those, common theme, are considered low-income residential areas. They're also within historic districts.

This route uses far fewer existing overhead utility corridors. Only 31 percent for the route as a whole than the routes we've seen up to this point.

And so as a result, far fewer overhead

distribution lines would be relocated and moved underground. Only just under a mile of circuit miles. And 3.4 miles of communication wires.

So with respect to this route, we did receive 13 comments in direct opposition to this route. You can see over 50 percent of those were because it ran through neighborhoods. Also impact on historic landmarks being, as you'll see in a slide in a minute, it does go -- runs parallel with Miracle Mile, the Miracle Mile Historic District.

So let's turn our attention -- oh, let me not forget about the comments in support of this route. There were eight comments in support of this route. And the primary reason for their support was the use of arterial roads. Stone Avenue is an arterial road. Speedway is an arterial. So you are making use of some of those major roads. And it had a lesser impact on neighborhoods.

So now we'll turn our attention to Slide 128, which is the map. So we begin Route C. Probably the most dyslexic person ever with left and right, so if you hear me saying things wrong, that's why.

So we begin at DeMoss Petrie. Same way as all of the other route options coming out of DeMoss Petrie, down Grant Road. But now Route C deviates at

Stone Avenue.

At Stone Avenue you can see it's primarily the grayish color which denotes commercial industrial land use as opposed to residential use. But you do have some mixed residential use.

In many cases those are apartments or different multi-family housing along Stone Avenue, and I think I've got a simulation. So this is a simulation looking north along Stone Avenue at Lester Street. So you can see an example of some of those apartment buildings on the east side or right side of the picture.

Again, there are no -- KOP 71 -- thank you -- is what we're looking at. So we're looking north, north along here. And I do want to point out there are no existing overhead utilities on Stone Avenue today.

And it does have some fair narrow setbacks as you can see is evident on the building on the left-hand side of Stone Avenue that basically comes right up to the edge of the road.

BY MS. HILL:

Q. Mr. Bryner, I'm sorry. You might have said this and I missed it, but you said there are no existing overhead utilities on Stone? What is that big black cable in the current condition?

A. (Mr. Bryner) This one?

Q. Yeah?

A. (Mr. Bryner) So those are -- that would be a perpendicular crossing. I believe that's communication wire.

A. (Mr. Robinson) Communication. That's correct.

Q. Thank you.

A. (Mr. Bryner) So this is a little bit further south on Stone Avenue, this is KOP 67, slide 1:30.

I do want to point out just in the existing -- in the existing condition on this, there's a sign right here that says Miracle Mile.

So at this point we do enter into the Miracle Mile Historic District. And so what Miracle Mile is back in the early to mid 20th century, this was -- it was a very important commercial district through Tucson and the historic routes 80 and 89 ran through the area, and so this was the main thoroughfare through Tucson. So that's kind of what the Miracle Mile is protecting.

And, again, you'll notice there are no overhead utilities, and I don't see any large communication wires perpendicularly crossing either in this location.

But, again, we do have those limited setbacks.

We're turning to the map on 128. So we would continue south along Stone Avenue. Right in this area, this large gray area on the west side of Stone Avenue,

that's Pima Community College's downtown campus is located right there. And then over on the east side you have the Feldman's neighborhood and historic district.

After --

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: One quick question, Clark.

I notice on the legend up there you have schools, houses of worship, hospitals, et cetera. Do you have all of them marked here? The reason for that question is I don't see several of them that I think are along Stone Avenue there between Speedway and headed north. Was there an attempt to get everything or it just got missed or whatever?

MR. BRYNER: Member Kryder, I'll say we attempted, the data that we have there is from, it's from the City of Tucson database is where we pulled that information and we supplemented it in some cases with data that we collected from our field visits, but it's certainly possible we missed something.

MEMBER KRYDER: Okay. We have an office in this general area, and I know there's a Baptist church and a Tucson tabernacle on the corner of Jacinto and Stone.

MR. BRYNER: Okay.

MEMBER KRYDER: I just didn't see them.

MR. BRYNER: I apologize. We did try.

MEMBER KRYDER: Okay. Thank you.

MR. BRYNER: So at -- once we hit -- once Stone intersects with Speedway the route crosses to the east to parallel Speedway Boulevard.

So Speedway Boulevard, again, is a major arterial street. In this case it does have a lot of commercial uses on the north, but primarily residential uses on the south. As you'll see in some of our photo simulations setbacks are minimal to some of those buildings, which is another one of the challenges that Mr. Robinson will discuss.

But looking at the photo simulation key observation point 65, which looks east down Speedway, this is Anza Park is located on the south side of the road or the right side of the picture and you can see -- you can see this commercial building that, again, comes almost right up to the roadway. And you can see some of the single-family residences on the south side of the road with our new line depicted in this case on the south side of the road, as it passes Anza Park and then crossing over to the north side of the road just past that.

And, again, there's no overhead utilities

on Speedway, in this portion of Speedway today.
BY MS. HILL:
Q. And if you could just remind the Committee, is Speedway designated as a Gateway Corridor Zone?
A. (Mr. Bryner) Speedway is not designated a Gateway Corridor Zone today.
Q. Okay. Thank you.
A. (Mr. Bryner) Just a little bit further down Speedway Boulevard, now at 4th Avenue, continuing to look to the east, just another depiction of some of the uses there. You do have a church and a school on the north side of the road there today, residents on the south side. No overhead utilities.
CHMN STAFFORD: Quick question. Does it switch sides of the streets there going along Speedway?
MR. BRYNER: We do have a couple of criss-crosses. Maybe Mr. Robinson can answer that better.
CHMN STAFFORD: As I'm looking at KOP 65, it's looking east and it looks like lines are on the right, and you look at KOP 66, still looking east down Speedway, now they're on the left-hand side.
MR. ROBINSON: That's correct. Along Speedway there are several building setbacks that wouldn't allow us enough space to keep the line on the

same side of the road, and so there's a couple spots along this route where it would have to cross from the south side of the road to the north side of the road to miss existing buildings.

CHMN STAFFORD: Just making sure I was seeing that right.

MR. ROBINSON: Yeah, that's correct.

CHMN STAFFORD: Thank you.

MR. BRYNER: And we prefer not doing that for a number of reasons. One is, you know, you're adding more infrastructure within the line of sight of folks. But also it results in larger structures in order to make those angles than our typical tangent poles.

MR. ROBINSON: Correct.

MR. BRYNER: Now we're looking at key observation point 44 which is still on Speedway, but looking back towards the west.

So in this simulation you can see now you do have residents on either side of the road in this area. Setbacks are little bit wider in this area than they were further to the west. But, and you can see again here in the simulation where we cross from the north side to the south side of the street.

At this point, referring back to Slide 128, the route does cross over. This is Euclid running

north-south right here. It crosses over Euclid and then shares the same common route as our preferred route, Route 4 down Park Avenue and across Adams and into the Vine Substation.

CHMN STAFFORD: So if you used C-4, that would be double circuit for that part?

MR. BRYNER: That is correct.

CHMN STAFFORD: Okay.

MS. HILL: I'm sorry, may I interrupt? And Mr. Robinson, you haven't spoken yet, but while we have the KOP up I'd like to ask this question.

BY MS. HILL:

Q. Is there any issue or concern about having to double stack on Speedway?

A. (Mr. Robinson) Yeah, there's potential along this route because of the overhead conflicts and also along some of the residential routes that I earlier testified that our double circuit configuration would be side by side.

There are some instances along these routes where that double circuit configuration would need to be a vertical stacked on the same side of the pole. It would result in about a 20-foot taller pole along those segments.

CHMN STAFFORD: And what would the maximum

height be then?

MR. ROBINSON: In those areas, 95 to 100 feet tall.

CHMN STAFFORD: Okay. And the rest was approximately 75, is that --

MR. ROBINSON: 75 to 80.

CHMN STAFFORD: Okay. All right.

MS. HILL: Thank you.

CHMN STAFFORD: Is that what you were going to ask, Ms. Hill?

MS. HILL: It was.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I just have a thought. I have a hard time visualizing how tall that is. On our -- when we're out driving around tomorrow, is there anywhere that we're going to actually be able to see poles that are of these various heights?

MR. BRYNER: Yes, Member Little, when we're at the DeMoss Petrie Substation, we have many poles of many different heights and I'll point out the different heights of those poles. We also have many different pole finishes there, so it will be a good place for you to see everything and try to get that perspective.

MEMBER LITTLE: Wonderful. Thank you.

MR. BRYNER: So looking at existing plans of the area, so we do bring in some, I think we cross over -- sorry. Let me look at my notes. Four specific plan areas with Route C.

Of these, again, only the University Area Plan makes mention of the location of poles. And we believe that Route C similar to all the other routes would further the purposes of that plan because it would result in a net reduction of 3.1 miles of overhead utilities. Even though it doesn't have a lot of overhead utilities in it today.

And that is largely because we would retire those existing 46kV lines regardless of which route we're using.

As far as Gateway Corridor Zones, again, we only impact or we only cross the Oracle Road Gateway Corridor in a perpendicular fashion for Route C, and we believe that we'd be able to get that special exception for that crossing.

As far as other overlay zones, Route C does go adjacent to the Court Street Cemetery Archaeological Sensitivity Zone. That's the new one that we have not -- I don't believe we've crossed that yet with any of our routes.

But similar to the other archaeological

sensitivity zones, it would just have that requirement that we have a professional archeologist present for any ground-disturbing activities which we would be happy to comply with.

And as far as neighborhood and historic preservation zones that we cross either through or adjacent to, we would not be inconsistent with those zones.

MEMBER RICHINS: Mr. Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: I notice on the map that the section between -- what's the street that goes northbound to Adams from Speedway? What's that street?

MR. BRYNER: That's Park.

MEMBER RICHINS: Park. I notice that between Park and whatever the street is that's just west of Campbell, when you go north on Route 2, there's a section by the U of A on Speedway that doesn't have any alternatives on it at all.

If you look at your placemat and you see the A, there's a section of Speedway just above the U of A logo that doesn't have any alternative routes. What's the specific decision that drove it off that arterial and sent it north? Because, I mean you have two other routes that go north. But I'm just curious as to

why that section was avoided.

MR. BRYNER: Sure. So Speedway in that area, and you'll see on the route tour, it does have very limited setbacks along in there with taller buildings in that area. And there was just no way we could go on either side of the road in that area.

MEMBER RICHINS: Okay.

MR. BRYNER: There is a median in Speedway right there. We did talk with the City of Tucson Transportation and Mobility Department about is there any possibility of placing the poles in the median. Didn't love the idea but basically we eliminated it for those reasons.

MEMBER RICHINS: Okay. Thank you.

CHMN STAFFORD: Can you show us -- could you look on the map on Slide 136? Can you highlight with the pointer the area that Member Richins is talking about?

MEMBER RICHINS: The pink line over, yeah, from there, yeah.

MR. BRYNER: Basically in this area. So we do have our alternative Route 2 which we haven't gotten to yet, but it uses Cherry right in this area and kind of winds its way up in there, and then you have a number of other roads in here, but I think he's asking why couldn't

we have connected all the way down Speedway to that same route to get into the North University neighborhood as we use on Route 2 to get up in there.

MEMBER RICHINS: I wasn't asking -- I knew there was a reason why you avoided it, and that's what I was trying to flesh out, so okay. Thanks.

MR. BRYNER: Sorry. Didn't mean to put thoughts in your head.

MEMBER RICHINS: There's so many thoughts --

MR. BRYNER: As far as historic districts, so route -- Route C. Sorry. Had to get my alphabet correct there in my head. So Route C would cross through or adjacent to three historic districts as we mentioned, it would parallel through a portion of the Miracle Mile Historic District, and then cross adjacent to two others.

There are four sites that were identified through our class 1 cultural resource study for routes pertaining to Route C.

Two of those were eligible for listing on the National Register of Historic Places. Two were not eligible and it was recommended that we have a monitor present if we had ground-disturbing activities within the vicinity of those two eligible sites.

And as far as low-income areas, as you can

see on the map, basically Route C, the entire extent of it goes through areas that are classified as lower income with the exception of a short piece on Grant Road. And because this is a longer route, more circuitous than some of the others, it would have a greater income on some of the lower income areas.

MR. ROBINSON: So we talked about more of the aspects that are unique about this route already. I wanted to point out some of the combinations and also repeat that along the north-south section of Stone and along Speedway there are a few spots where we would have to cross the road because of existing building setbacks that don't have enough space for us.

So Route C has commonality with routes 2, 3, 4, 5 and 6. So the first one I'll talk about is the commonality with Route 2. And that is the section north-south along Vine Avenue Route 2 and Route C have commonality with.

Route 3 and 4 share the same commonality together with Route C, and that is from right here, Euclid Avenue along Speedway, up Park, over to Adams and into Vine.

Route 5 has commonality with Route C from Stone Avenue along Speedway north on Park over to Adams and into Vine.

And then finally the commonality for Route 6 is on this intersection from Stone north to Grant Road and then Route 6 continues along Grant Road.

BY MS. HILL:

Q. Thank you, Mr. Robinson.

Mr. Bryner, are you prepared to embark on the virtual tour of this route?

A. (Mr. Bryner) I'm ready.

Q. Okay. Could you please proceed.

MR. BRYNER: Grace, can you go ahead and start it?

So, again, starting at the DeMoss Petrie Substation. I think we have a slightly different angle here so it's getting exciting.

You can see the casino area is just off right there. That's where the casino is being developed that I believe Member Mercer brought up.

So the major road that Grant Road is crossing right here is Oracle Road.

Now we're coming up on Stone where Route C turns to the south or to the right. So you can see Stone is still a major road, but you have areas where the buildings come in really close. There's some of the setback limitations that we discussed.

Primarily commercial uses along in here,

but you do have some of those apartment buildings.

CHMN STAFFORD: Looks like it crosses Speedway twice there.

MR. BRYNER: Stone Avenue, but yes, it does have a couple crossings, one side to the other.

CHMN STAFFORD: Okay.

MR. BRYNER: We're coming up on Speedway and you'll see the same thing on Speedway, though.

So right here at this road intersection is with Speedway. That's the old Court Street Cemetery is sort of the vacant lot you're seeing in the bottom right, and the Anza Park is crossing right there. And now we zig to the north side of Speedway. So, again, more commercial institutional uses on the north side, more residential uses on the south side of Speedway.

And we zig back to the south side due to some building clearance issues and then back to the north side, you can see some of the high density development occurring in and around the university.

MR. ROBINSON: Can you pause that, Clark?

MR. BRYNER: Can you pause it, Grace.

MR. ROBINSON: Maybe back up a few frames. Yeah, right here is fine.

Member Richins, you asked about the section along Speedway and why we had to eliminate that as a

potential route. And you can see the major -- the major buildings both on the north side and the south side of Speedway along that segment that makes it not have enough space for us to site -- or design and build a transmission line in that corridor.

CHMN STAFFORD: Can you point at that with the pointer?

MR. ROBINSON: Sure. So I'm talking about these buildings here on the south side, and mirrored on the north side of that road, these buildings here.

MEMBER RICHINS: Are we looking on Speedway here or up --

MR. ROBINSON: This northwest view is a view along Speedway. We -- our chosen route will turn and head to the north along Park, but we couldn't use the section east of Park along Speedway as a viable route because of these major commercial buildings on both sides of the street.

MEMBER RICHINS: Okay.

CHMN STAFFORD: Thank you.

MR. BRYNER: And you can also see that median that I was mentioning, Member Richins, down there. But not an ideal option.

Okay. You can go ahead.

Also, so Park Avenue, that's where our

same -- this is the route of our preferred as well. University Heights Elementary School, that historic landmark right there. Coming up on Adams here. A little different perspective on this coming in from the south than we've seen before.

But, again, you see the residential land uses in this area the university -- or the Banner Hospital off in the distance there. Coming up on the Vine Substation site.

And that concludes Route C.

MS. HILL: Thank you, Mr. Bryner.

So Mr. Chair, we are halfway through the presentation of routes. We have five more and we anticipate those routes will each -- that presentation depending upon questions would be, what, 15 to 20 minutes each.

MR. BRYNER: I think so.

MS. HILL: So how would you like to proceed?

CHMN STAFFORD: I think it's time for lunch.

MS. HILL: Okay.

MR. ANCHARSKI: And, Chair Stafford, this is Mr. Ancharski. Before we break we received a request from a member to discuss a report that may have been

referenced in one of the exhibits provided by one of the parties. We intend to make that an exhibit.

It's related to undergrounding. It's a publicly available report. But we will plan to discuss that and have that ready for the undergrounding panel. And I want to assure the Committee that that's going to be a really robust discussion on that undergrounding panel as our team has been taking notes so far.

CHMN STAFFORD: Excellent. It looks like -- it's probably more likely we'll get to the undergrounding panel on Friday. Because we have -- you said you have six more routes to cover, and then we have Mr. Bryner going to cover the outreach which I imagine will take some time, so -- and then Thursday will be the tour which will take up most of the day.

MS. HILL: That's correct, Mr. -- I'm sorry, Mr. Chair.

The -- we are hoping to get through the public outreach today given the presentation of routes. And I don't know what the Committee's schedule is but, you know, maybe we could go to 5:30 today if necessary to make sure that we can get through that. But if we do, then that kind of ties it up nicely for embarking on the tour tomorrow.

We anticipate the tour will take most of

the day. We are going to stop for a lunch break and we'll have many breaks in between, but we anticipate the tour will take most of the day and by the time we're finished with the tour nobody is going to want to do anything except go back and probably take an ice bath and change and nap and that sort of thing, so we weren't anticipating testimony tomorrow.

CHMN STAFFORD: Exactly. I agree with that. I don't think any of us would expect to come back and sit here for several hours after going on a five- to six-hour tour.

MS. HILL: Right. I think it just depends on how much cross-examination we have for Mr. Bryner and Mr. Robinson once we complete the presentation of routes.

CHMN STAFFORD: All right.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I've heard some of us discuss the fact that maybe we could start a little earlier when it's not quite so warm tomorrow on the tour.

MS. HILL: I defer to Mr. Bryner on the logistics with the bus service on that.

MR. BRYNER: We can definitely contact the bus and see if we can get them earlier. What time are you thinking?

CHMN STAFFORD: I'm thinking maybe eight o'clock as opposed to nine.

MEMBER LITTLE: At least.

MS. HILL: So I would just caution that these are commuter routes by and large that we're doing going down. And so we might, although it is not --

MEMBER HILL: 6:30, then.

MS. HILL: Yeah, I was just going to say it's not high season by any stretch here at the university or whatever, but you are going to have some additional traffic if we start at eight. And we will encounter additional traffic as we move along and it will kind of lengthen the tour a little bit.

CHMN STAFFORD: Well, we don't decide that right now but it's something to consider. But I think for now we're ready for lunch. So let's take a recess until 1:30.

(Recess from 12:34 p.m. to 1:47 p.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. Hill, I believe we're going to start another route.

MS. HILL: We are.

CHMN STAFFORD: 2.

MS. HILL: I was corrected at lunch. We

only have four routes left, not five.

BY MS. HILL:

Q. So, Mr. Bryner, are you prepared to discuss alternative Route 2 with the Committee?

A. (Mr. Bryner) Yes, I am.

Q. All right. Could you please proceed.

A. (Mr. Bryner) All right. So alternative Route 2, it is one of our more expensive routes. It's 16.1 miles [sic] and just over five miles in length. It does go through quite a bit of residential area, primarily through the Sam Hughes neighborhood at 1.6 miles. Just over a half a mile within a low-income residential area. And just under a mile through historic districts.

This route is about half -- utilizes about half of the area that has existing overhead lines today, and about half would be new overhead lines.

We would place about 3.4 circuit miles of under -- or overhead distribution lines underground if Route 2 were selected and about 8.3 miles of communication wires.

This route, as you well might imagine, based on some of the public comment we heard, there was quite a bit of opposition to this route. And, as you can see in the pie chart on Slide 142, 75 percent of those

comments -- or 12 comments in total specific to this, but 75 percent of those were -- were because it ran through neighborhoods. And we received no comments in support of this route.

Turning to the map on Slide 144. This route is unique from some of the others that we've looked at because it heads south out of Vine down Vine Avenue. In this stretch I know we looked at a little bit of Vine north of Adams Street, but we haven't looked at it south of Adams Street yet, and it is primarily residential still on the west side of the road. On the east side of the road, it is still more commercial, industrial. There are a couple of U of A buildings over there. And then there's a little bit of mixed residential in there. The route jogs east on Mabel for a tiny stretch and then uses Cherry to get down to Speedway. And throughout that whole area right in there it goes through buildings that are a part of the university campus.

And the photo simulation KOP 24, Slide 145 is from Speedway Boulevard looking north along Cherry Avenue. So in the existing condition, you can see some of the university buildings in here. Looking up this roadway, you've got a parking lot right in here, but no existing overhead wires today along this stretch.

From there, the route enters the Speedway

Boulevard corridor. As we've talked about Speedway before, it's a major arterial road, not a gateway route, primarily commercial uses on either side of the road.

And in this stretch, you don't have the buildings coming right up on the roadway, so there is enough setback for us to place our structures, whereas just to the west of there between the University of Arizona it was a challenge.

And here is a -- KOP 21 is a photo simulation along Speedway Boulevard at Campbell Avenue looking to the west. So you can see that you do still have some buildings -- whoops, wrong remote -- you do still have some buildings that are -- come fairly close to the edge of the road right-of-way on the north side.

On the south side, though, there is more room, and so that's where we planned to place our poles was on the south side. Again, it's commercial uses over -- over on that side of the road, no existing overhead utilities today.

Looking back at the map. So once we hit Tucson Boulevard about a half a mile down -- down Speedway after Campbell, then we would turn south entering into the Sam Hughes neighborhood. At this point there's a large park, Himmel Park, on the east side of Tucson Boulevard.

And Tucson Boulevard, just to talk about it a

little bit more, and you'll see in the photo simulations we have it's a collector street. So I'd say it's akin to Park Avenue that we used in our preferred Route B.

It does go through a largely residential neighborhood in this area with primarily single-family residential -- residences on either side of the street.

So this is a photo simulation key observation point 19 looking north and a little bit west from within Himmel Park. We do have quite a bit -- we do have overhead infrastructure along Tucson Boulevard today. You've got overhead distribution lines as well as underbuilt communication wires hung on those lines. All of that infrastructure would be placed underground if Route 2 were selected. And you can also see in these photos some of those residents.

Just a little bit further down Tucson Boulevard, to give you another look within the Sam Hughes neighborhood, key observation point 18. Again, it's a fairly narrow road.

I'll point out that one thing you're going to see on our tour tomorrow -- and I can't remember if there were any specific comments in the public comment about this, but there have been comments in the docket about why are you going down Tucson Boulevard and you're not using Country Club.

So Country Club is the next road to the east of here. You can see it on the map. So it's the next main road to the east, and that one is an arterial street. So it's an area that is it's a very tight road. It's four lanes of traffic, and there is no setback at all from the travel lane to where we have actually existing poles today. And I'll show this on the tour tomorrow.

And we do have quite a few pole hits in there where vehicles collided with the poles. And so for safety considerations we didn't want to go there because there's no opportunity for us to move those poles further back because of the location of buildings.

So Tucson Boulevard differs a little bit. It's still fairly tight. But the difference is is you have one lane of travel in either direction, and you do have a bike lane, sidewalks. There's setback here. I don't know if you'd add anything to that, Mr. Robinson.

MR. ROBINSON: No. I would only add that the observation made about the Country Club setbacks are very accurate. The poles that are currently along Country Club sit right behind street curb, which really doesn't give you any space to have safety for the public if a road leaves the -- if a car leaves the road surface.

MR. BRYNER: So I know that's aside from this simulation, but I just wanted to point that out.

MEMBER RICHINS: Mr. Chairman.

CHMN STAFFORD: Yes.

MEMBER RICHINS: This is the route that I have the hardest time getting my head around with that jog down Tucson Boulevard. You have Route 1, I believe, that goes straight up Campbell.

What drove this jog over to -- to the middle of Sam Hughes neighborhood and through Tucson Boulevard? It just -- it kind of -- it doesn't make any sense.

What drove you guys to explore that alternative?

MR. BRYNER: Yeah, Member Richins, so if you look on the map on Slide 144, we don't actually depict the boundary of our study area, but if you kind of trace where we have the tan areas denoting residential areas, you can kind of get the idea of where our study area was at.

MEMBER RICHINS: Sure.

MR. BRYNER: And so our study area did go all the way over to Country Club Road.

And when we looked at that, looking for opportunities to go north/south throughout these areas, when Country Club was ruled out as not a possibility, we'd already -- Tucson Boulevard was also on there as one

of the opportunities because it's a collector street. Again, we're not looking at residential streets to locate on but more the major roads. So it was something that was on our radar already.

When Country Club went out, it basically took away any other opportunity to go north/south east of Campbell. And so we felt like we needed to take a hard look at an option -- an option that went east of Campbell and not focus all of our options on those west of Campbell.

They all have -- like I said before, these 10 different route segments they all have pros and cons. Certainly a con to this is it's further. It does go through and bisect a neighborhood.

MEMBER RICHINS: Okay. So is there -- so, okay, I get that.

Where it intersects on Speedway, Routes 1 and Route 2, talking about 2, right, yeah, where that intersects, is there -- is there a possibility of exploring, you know, hanging that left?

You know, so say you're looking at Route 1 and you're taking that straight north all the way to Speedway, is there an opportunity here to hang left and follow the blue route, which is Route 2?

Sorry, I'm getting so confusing.

MR. BRYNER: So Route 1 goes down Campbell --

MEMBER RICHINS: Right. And then straight.

MR. BRYNER: -- and the Speedway. And then it goes straight up.

Are you saying take that and then cut over --

MEMBER RICHINS: Yeah.

MR. BRYNER: -- and then wind up and in?

MEMBER RICHINS: Yeah. Is there anything technically preventing that kind of deviation?

MR. BRYNER: Technically preventing it, no.

MEMBER RICHINS: Okay.

MR. BRYNER: The only reason we didn't include that as an option was because we figured if we're going down Campbell, we're going down Campbell.

MEMBER RICHINS: Okay.

MS. HILL: May I --

MEMBER RICHINS: So -- yeah, sorry.

So it made more sense for you to have that option that went straight up, hit Vine, and over?

MR. BRYNER: Correct.

MEMBER RICHINS: Okay. All right. Thank you. I appreciate it.

MS. HILL: I'm sorry. Mr. Chair, Member

Richins, may I ask a couple of additional clarifying questions to build off the questions that Richins asked?

CHMN STAFFORD: Certainly.

BY MS. HILL:

Q. All right. Mr. Bryner, so I wasn't sure that Member Richins was finished. That's why I asked.

Mr. Bryner, I wanted to clarify. So in terms of east of Campbell and west of Campbell, is one area predominantly shown as low income versus not?

A. (Mr. Bryner) Yeah. As -- we've had a few slides, I guess, that have depicted that already.

But basically you can draw a line down Campbell Avenue. East of Campbell is not considered low income. West of Campbell is considered low income.

So to the point that I made I think it was yesterday, one of these previous days, in the initial siting study that TEP conducted for this and following the results of our pulling our CEC application on that, there were certainly some sentiment in the community that TEP was -- was -- or might try to put the line through a low-income area at the expense of avoiding a more affluent area. And so we wanted to ensure that we were -- we were considering all possibilities.

Q. Thank you. And just as a reminder, so the Gateway Corridor on Campbell is not limited to speed --

to between Speedway and Grant; correct?

A. (Mr. Bryner) That's correct.

Q. Okay. It actually goes south of Speedway to all the way down Kino Parkway; correct?

A. (Mr. Bryner) That's correct. And north of Grant as well.

Q. Thank you.

A. (Mr. Bryner) Let's see. Before we leave KOP 18, just, again, to highlight the existing infrastructure, so the existing distribution lines with their associated wires, you do have quite a number of communication wires in here. And, again, all of that would go away.

CHMN STAFFORD: Mr. Bryner, now that does that go away only if you place the line on 2, or are you planning on that going away regardless?

MR. BRYNER: Thank you for clarifying, Chairman Stafford. This would be only if Route 2 were selected.

CHMN STAFFORD: Okay. Thank you.

MR. BRYNER: Before we jump to that visual simulation, as the route approaches or continues down Tucson Boulevard and approaches Broadway Boulevard, the land uses do change from residential to -- well, there's a couple of churches in here and more institutional uses,

and then commercial uses along Broadway.

And then the route does turn to the west, west/east and parallels Broadway Boulevard for a short distance. This stretch is within a Gateway Corridor. And we're seeing a photo simulation of that in key observation point 11 looking east down Broadway Boulevard.

And to just point out the current condition, so there is existing overhead distribution with communication underbuilt today. And these -- or these distribution poles are fairly tall distribution poles as far as that's concerned I presume because of various clearances they needed to make.

But you can see in the simulated condition our new poles we'll have fewer of them spaced out further than those distribution spans, and there will be fewer wires in the air.

MR. ROBINSON: So, Clark, if you see there's a couple of streetlights that are shown there, those streetlight heads are about 32 feet off from the road surface, and that's what's pushed the distribution and our lines up as high as they are.

MR. BRYNER: Thank you for clarifying that.

So at this point Route 2 then heads south on Plumer into a commercial and industrial area, and then

winds over on 14th Street, runs to the west on 14th Street where then it joins up with Campbell Avenue. And from this point south, it goes through an industrial area, and this is common with Route 1 that we previously described all the way into the Kino Substation.

But I think I might have another simulation. Nope. I don't. Okay.

So just to jump into a summary of some of the other -- the other uses and things that are going on here.

So this route does go into some of these specific plan areas, in particular the Sam Hughes Neighborhood Plan area. Beyond that I guess there are -- there are seven specific plans that Route 2 crosses into, and of those the Sam Hughes Neighborhood Plan as well as the University Area Plan have that language that we've discussed previously with respect to the location of utilities.

CHMN STAFFORD: This is shown on the map on Slide 150; right?

MR. BRYNER: Slide 150, correct.

And TEP does believe that Route 2 would further the purpose of those specific plans, both the University Area Plan and the Sam Hughes Neighborhood Plan, by -- within the University Area Plan resulting in

a net reduction of 6.6 miles of overhead utilities and removing 68 poles and within the Sam Hughes Neighborhood plan resulting in a net reduction of 3 miles of overhead utilities and the removal of 61 poles.

We kind of talked about this a little bit already too, but the Gateway Corridor, so this route would have a perpendicular crossing of Campbell Avenue on Speedway. Again, we believe that we would be granted a special exception from the City of Tucson for that overhead crossing.

And then on Broadway Boulevard, we would parallel within a Gateway Corridor. And that is an area that there are special exceptions that exist for paralleling Gateway Corridors as well. I don't know that we've talked about those very much, but we do believe that we would fall under the criteria to meet that for this stretch along Broadway Boulevard.

CHMN STAFFORD: For the parallel run you're talking about?

MR. BRYNER: Correct.

CHMN STAFFORD: Because what's the distance on that?

MR. BRYNER: About a quarter mile.

CHMN STAFFORD: Okay.

//

BY MS. HILL:

Q. And, Mr. Bryner, could you just explain the special exception provision that you believe would apply here?

A. (Mr. Bryner) Sure. So under the special exceptions that, again, were developed between -- by the City with coordination with TEP, there's a special exception that allows -- or there's criteria that allows if you have existing overhead utilities and you're only increasing by a certain amount, then that's okay.

Also if there -- I can't remember the exact language, but basically if it's within an area of similar land uses, so your industrial and commercial areas.

Q. Thank you. And within this Gateway Corridor, this short span of Gateway Corridor on this route, would there be any reduction in poles and overhead?

A. (Mr. Bryner) Yes. There would be.

Q. Do you know what that was?

A. (Mr. Bryner) Let me go back to the simulation.

So on key observation point 11 -- and this doesn't show the entire stretch -- well, I guess it probably does. I just can't see what's going on just to the west of us here.

But if we look at this, we can count -- well, let's look at the simulation condition, first of all, and

see where the last pole is before we go down Tucson Boulevard. So right there we have three poles. And we would have one more pole here at the corner when we go down Plumer. So you're going to have four poles.

If we look at the current condition, you've got probably a pole right there and another pole. This is an assumption before you get to the corner, so one, two, three, four, five, six poles. So you're going to reduce those overhead poles by two.

Q. Thank you. And given that there's no certainty, of course, to the special exception process in this situation, would you still be asking the Committee to make a finding for this very short span under 40-360.06(D) regarding undergrounding in case the special exception was not granted?

A. (Mr. Bryner) Yes. We would.

Q. Thank you.

A. (Mr. Bryner) Okay. Going on to Slide 152. Just a discussion of other overlay zones. Here there are no overlay zones. I know we've got the Jefferson Park neighborhood preservation zone denoted on there, but we would be located outside of that for Route 2 just in the vicinity. So we would not cross through or adjacent to any of these overlay zones, so no problem with being consistent with those.

And as far as historic districts are concerned, Route 2 would cross through or adjacent to three historic districts, and similar to all of our other routes we would not affect the designation of any of those districts.

And your Class I cultural resource study found one site within the vicinity of Route 2, but it was determined to not be eligible for listing on the National Register, and so there was no monitoring that was recommended.

And as we've already discussed just a little bit, with respect to low income, Route 2 actually avoids more low income than other routes because it does go east of Campbell Avenue and through the Sam Hughes area. So that area is not considered low income.

And then there's a stretch between the -- well, it's not really residential low income, but it's outside of those census tracts that are designated as low income.

Q. Mr. Bryner, before you move to Mr. Robinson, I think Mr. Ancharski has a clarification.

MS. HILL: Is Slide 155 sufficient for you?

MR. ANCHARSKI: I think it's 140 where the noise receptors are shown.

BY MR. ANCHARSKI:

Q. So, Mr. Bryner, we've seen a similar-type map

where a sensitive noise receptor such as hospitals, places of worship, and schools are identified.

Can you please explain a little bit further about how you identified those on the map and how those were included in your depictions?

A. (Mr. Bryner) Sure. So, yeah, so the -- do you see all the little symbols scattered all over the map? But one thing that you might not notice is they're only in the vicinity of our routes. So we didn't include all of these sensitive receptors within the study area. We looked at ones that were within 250 feet of one of our routes. And so I think that might be to answer Member Kryder's question about --

MEMBER KRYDER: They're both right on Stone.

CHMN STAFFORD: Use the microphone, please, Member Kryder.

MEMBER KRYDER: I'm sorry. Thanks for that. But both of those churches are right on Stone. Both on the corner of Jacinto and Stone.

MR. BRYNER: Correct.

And I think we tried to look at that. And that is located north of Grant Road. And so it was outside of the boundary that we were looking at.

MEMBER KRYDER: No. It's not. It's north

of Stone between Stone and Grant, I think. Perhaps I am wrong if you looked and found it. I am wrong and stand corrected. Thank you.

MR. BRYNER: It doesn't mean we didn't miss something, though.

MR. ANCHARSKI: Thank you, Mr. Bryner.

MR. ROBINSON: So Clark did a great job of really talking about some of -- and describing some of the challenges from an engineering perspective on this route.

I would point out that along Speedway in the -- as it turns and heads west along Speedway, that area of Speedway is wide enough that we would anticipate that we'll be either on the north side of Speedway or on the south side of Speedway in its entirety.

In addition, Route Number 2 shares common -- a common route path with Selection B and Selection C of the route paths from DMP to Vine Substation. And that area is along Vine from Vine just south to Adams where Route B would head to the west, and the rest of this line is -- would be in its own corridor.

And I just want to confirm Chairperson Stafford when you asked the question about whether the distribution would be undergrounded, the underground statistics that we talk about are only along the route

that -- that chosen route and description is for, and we would only plan to underground the distribution for those specific routes chosen.

CHMN STAFFORD: Thank you.

BY MS. HILL:

Q. Okay. Mr. Bryner, are we headed for the virtual tour for Route 2?

A. (Mr. Bryner) I think we're ready for the virtual tour.

Q. All right.

A. (Mr. Bryner) So we're starting at the Vine Substation. So looking across the northern -- or the southern edge of the Jefferson Park neighborhood and now entering into the North University neighborhood. You can see we're going down Vine Avenue. The residences are located on the west side of the road. And now we start moving into more university uses and some administrative buildings.

Then on to Speedway Boulevard where you can see the commercial uses. A hotel is the large building on the south side of the road or right side of the road.

Blenman-Elm neighborhood on the north side. Sam Hughes Neighborhood on the south side.

Here we're coming up on Tucson Boulevard. So we'll turn to the south here. Himmel Park is the large

park on the left-hand side of the screen.

Again, primarily residential, single-family residential uses along Tucson Boulevard.

There is a small commercial development at the intersection with 6th Street that we're coming up on.

Now the route is approaching Broadway Boulevard where it jogs to the west. This is all commercial on either side of the road on Broadway.

And then turns to the south on Plumer into the Arroyo Chico neighborhood. I talked a little bit about the Arroyo Chico. And if you see the line of trees kind of in the middle of the screen, that's where that drainage runs, and then it goes into various flood retention basins just to the other side of Kino Parkway, which is the major road you see there.

Now, this Campbell Avenue. Again, this is a stretch of Campbell Avenue that's not gateway through the industrial area, and you've seen this before on Route 1 that utilized this same corridor.

Coming up on Aviation Highway, the 22nd Street bridge. Again, this would be where we would need larger poles so that we could make that crossing.

Railroad yard on the left. Other industrial buildings on the right. And then making our fun little zigzags back and forth into the Pueblo Gardens

neighborhood and then down Martin.

Q. Mr. Bryner, could you pause this for a second.

Are you able to reverse back or not?

It's not necessary.

Okay. Can you go back to the bridge?

So is that bridge going to be rebuilt at any time?

A. (Mr. Bryner) Yeah. The City of Tucson has plans to rebuild that bridge. I'm not sure of the exact time frame. I'm sure Mr. Lusk's witness could speak to that.

Q. Okay. And so would this line be built in collaboration or coordination with the City based upon whatever their plans are for any bridge rebuild?

A. (Mr. Bryner) We would coordinate with the City and any of their road plans in securing our right-of-way use permits and working with them so that we avoid conflicts.

Q. Okay. Thank you.

A. (Mr. Robinson) Ms. Hill, just to add to that, that would only occur to the degree that the design plans and engineering plans for the City are complete.

A lot of those are conceptual and not set and finalized at this time, so we can only coordinate so much with the City to anticipate what we need to do.

Q. Okay. So then, Mr. Robinson, does that mean that in the event that there ends up being a conflict just because of the timing of the City's plans versus the Company's plans that we might have to move some things in the future?

A. (Mr. Robinson) That's correct.

Q. Thank you.

A. (Mr. Bryner) You might wonder why we didn't just go straight right there through that parking area. It was just a little bit too tight with the buildings. So that's why we needed to do those jogs.

Back to the Kino Substation.

Q. Thank you, Mr. Bryner.

Okay. So at this time, I believe, we're ready to discuss alternative Route 3; is that correct?

A. (Mr. Bryner) Correct.

Q. All right. Please proceed.

A. (Mr. Bryner) All right. This is three to go. Three to go.

So alternative Route 3, this one is also unique from some of the other ones that we've seen. It would cost a little less than alternative Route 2, but still one of our more expensive routes at $14.8 million. It's about 5 miles in length.

And this one does cross through the most amount

of residential areas, all of which is considered low income, so that's 2.3 miles of the route would go through residential. 1.2 miles of those are within historic districts.

And we would follow or -- follow existing overhead utility corridors for just under half of the route. And we would place -- if alternative Route 3 were selected, we would place 2.2 circuit miles of distribution underground, and about 5 and a half miles of communication would be moved underground or relocated.

We did receive I'll say a lot of comments in opposition to this route. There were 14 comments that were received primarily because it does run through a lot of neighborhoods. It also runs through the flood basins that were created for Arroyo Chico, and I'll point those out on the map here in just a minute.

And there were two comments that were received that were supportive of this route, and they were less impact on neighborhoods and use of arterial roads, which are interesting observations from my standpoint because I'd say this route uses the fewest arterial roads and runs through the most neighborhoods. Just my observation. But --

Now, going to the map on Slide 160. So beginning at the Vine Substation, Route 3 is common with

our preferred route Route 4 coming up and using Adams, Park, Speedway, and then Euclid.

Now, where it deviates is -- if you'll recall where Tucson High School was at along Euclid, right in that area at 7th Street it veers to the east.

Now, this is another area where we have 46kV infrastructure. It's located in an alleyway between 6th Street and 7th Street. We determined we could not go and rebuild within that area, so we looked at the adjacent roads. 6th Street is a more major street than 7th Street, but the buildings -- so that 6th Street is essentially the boundary between the University of Arizona campus and the Pie Allen neighborhood to the south.

CHMN STAFFORD: You're looking at the map on Slide 160; right?

MR. BRYNER: Correct. Yes. So right in this area is where I'm talking about.

And so the building setback on 6th Street was such that we couldn't go on 6th Street. And 7th Street, though a residential road, the homes were set back further, and there was enough room for us to use. And so that's why we selected 7th Street.

This is a -- looking at key observation point 49, Slide 161. This is on 7th Street looking to

the east -- or, sorry, looking to the west.

And one thing I want to make sure I point here -- so one thing there are no overhead utilities on 7th Street. There again they're located in the alleyway that's just -- just beyond -- just in the back lots of these homes right here.

But one thing that was brought up when we met with the Pie Allen neighborhood is they've got plans working with the City to try to install some -- some traffic calming measures and do some water harvesting. And so they asked, Hey, would there be an opportunity for you guys to build some chicanes. New term for me.

CHMN STAFFORD: Yeah. I was -- can you spell that? Because I'm not sure what it was even.

MR. BRYNER: I spell it c-h-I-c-a-n-e-s, but I could be wrong.

CHMN STAFFORD: What does it mean?

MR. BRYNER: I can describe it. So I'll describe what it is.

So we've got one simulated right here. I don't know if on your iPads if you're able to zoom in.

CHMN STAFFORD: Yes. You can.

MR. BRYNER: But if you're able to zoom in, you can see it's basically -- it's not a cutout, it's an extrusion.

MEMBER HILL: A bump out.

MR. BRYNER: A bump it?

MEMBER HILL: A bump out is what I call them.

MR. BRYNER: Thank you, Member Hill.

So it's a bump out into the roadway that would allow for a parking strip there. But it also allows for an area where you can collect water from the street into this area to harvest the water, also water any landscaping, and it provided an opportunity that you could put some public art or things like that.

But their primary purpose in it was it makes the road a little bit more narrow, and so it slows traffic down a little bit and provides a little bit of beautification.

CHMN STAFFORD: Okay. So you're talking about the -- where the curb comes out and it bows away from the pole there, not the -- are those decorative -- what are those? Are they --

MR. BRYNER: Those are a simulation of some art.

CHMN STAFFORD: Okay. But they're not part of what the chicane? What was it?

MR. BRYNER: Correct. The chicane would be the bump-out.

CHMN STAFFORD: Okay.

MR. BRYNER: The bump-out would be the chicane.

CHMN STAFFORD: Okay. I just -- okay. They don't all have, like, fancy artwork like that, though?

MR. BRYNER: No. This was just a concept that we put in there that, you know, obviously this is City of Tucson road right-of-way, but it's something the neighborhood wants, and it might be an opportunity for us to partner with the City to make that happen.

And while we simulated it on this, in our conversations with the City of Tucson Transportation and Mobility Department, we committed that when we had a route that was approved that we would meet with them to determine if there were opportunities for doing other you can call them mitigation, you can call it beautification, different things like that to make the route a little bit more palatable for the community.

CHMN STAFFORD: Distract from the poles, huh?

MR. BRYNER: It also -- I mean, an installation like this also provides an opportunity for us as well because it allows us to move it a little bit further from the homes, provides a little more space for

that -- the blowout.

MEMBER HILL: I think it's elegant and brilliant.

CHMN STAFFORD: And this is the only route where you contemplated the use of chicanes?

MR. BRYNER: So we simulated it here just because the neighborhood brought it up. But we have discussed it with other neighborhoods, and it would be something that we'd be willing to discuss, you know, at the City's pleasure if that was something that was of interest.

CHMN STAFFORD: Okay. I mean, is that -- I guess it depends on how narrow the street already is. But would these be an alternative to the airspace easements in certain circumstances, I guess?

MR. ROBINSON: Yeah. There's an opportunity that you could move the pole a little bit further into the right-of-way and reduce the amount of aerial easement that would be required from the private property owners. That's a four- to five-foot opportunity. Chicane doesn't go too far out into the public road, but there's an opportunity to slightly move the pole into the right-of-way more.

CHMN STAFFORD: Okay. So I'm assuming you looked at all the routes and looked for I guess -- well,

I've got to assume and ask have you looked at the other routes and found opportunities for these to -- I remember in, you know, prior presentations on other -- other segments that you talked about how narrow the streets are -- or not how narrow the street but how small the setback is from the building to the -- to the road where you've had the opportunity to put the pole.

I guess this is the first time we -- this has come up, so I'm wondering if that would -- this is potentially -- how -- to what extent have you explored the possibility of these for the other routes, I guess?

MR. BRYNER: So, again, it's -- it's got to be in partnership with the City of Tucson. So they've got traffic they're trying to move on some of these roads. And so some of the busier roads doing something like this there's probably less of an opportunity. On more of your residential streets --

CHMN STAFFORD: Yes.

MR. BRYNER: -- that's where I would say is where the opportunity is at.

On Adams Street, where you do have a lot of street parking there, sure you're going to lose a space or two to have this bump-out, but it's also going to serve as sort of demarcating that you've got that permanent street parking elsewhere and serve to slow down

the traffic through those areas.

CHMN STAFFORD: Yeah. Because I'm looking at, like, Routes A and B where you're going through those neighborhoods, and some it was not a lot of space there. So I was wondering if that -- perhaps maybe that would be a possibility, but that's just my thought.

MR. BRYNER: Yeah. I think it's a good thought, and I think we would agree with you.

BY MS. HILL:

Q. Mr. Bryner?

A. (Mr. Bryner) Yes.

Q. Would you just clarify once again for the Committee, though, at what point in the process we would -- TEP would approach the City of Tucson about that.

And I don't want to take too much time on this, but I just want to make sure the Committee is aware of that, what the timing would be on such an effort.

A. (Mr. Bryner) Sure. So, as I mentioned in our due diligence and our preliminary studies, we did speak with the City about this, and it was determined once we have an approved route then we can talk specifics to see what's possible.

Q. Thank you, Mr. Bryner.

CHMN STAFFORD: Just a quick follow-up

question.

Compared to the aerial easement, which of these two options takes less time and expense?

Or is it are they comparable and just kind of sort of ballpark.

MR. BRYNER: I would have to just take a total guess. Maybe Mr. Robinson can speak to it.

MR. ROBINSON: So moving the tower out into the chicane wouldn't -- it's highly probable that it would not eliminate the need for aerial easement, only reduce the amount of the aerial easement that we would need for blowout.

So it would be a combination of both, but I do believe that the property owners are probably more willing with a smaller amount of impact than they would with a bigger impact.

CHMN STAFFORD: For example, in the picture here we're looking at on the right-hand side on Slide 161 for KOP 49, that pole placed there at the new pole, would that also even though it's placed in the chicane would it still require an aerial easement from that property owner that it's adjacent to?

MR. ROBINSON: So shown in that picture, at the pole location we probably wouldn't need an aerial easement because the conductor is fixed at the pole and

it won't move.

But if you look in the picture, there's a white pickup in the background, there's a property owner there where -- who they might be affected by that aerial blowout of that conductor that we would need an easement for.

CHMN STAFFORD: Okay. So you'd almost have to have those chicanes where all the poles were to make it to really --

MR. ROBINSON: Potentially, yeah.

CHMN STAFFORD: -- eventually be kind of the aerial easement you would need for the sway blowout.

MR. ROBINSON: But we do do very detailed engineering analysis of conductor position and property line association to determine how much easement we need from each property owner.

CHMN STAFFORD: Thank you.

MR. BRYNER: The one thing I might add to that, Chairman, would be that real estate prices are fairly high in this area, so any square footage that you save there would likely pay for that chicane, but I don't know how much they cost.

CHMN STAFFORD: You said the neighborhood is -- they're trying to get the chicane? How long have they been trying?

A year? Two months?

MR. BRYNER: I don't know the history on that.

CHMN STAFFORD: Six years?

MR. BRYNER: I didn't ask them for the history. It was just something that they're working on.

CHMN STAFFORD: Okay. I didn't know if you had that information. I just thought maybe it was worth -- like, at the time if applying, you know, for a chicane is the same as getting a transmission line, I don't know if it's even a viable option.

MR. BRYNER: Do they have a chicane siting committee? I'm not sure.

MEMBER HILL: I'll volunteer.

CHMN STAFFORD: Maybe Mr. Lusk knows.

MEMBER KRYDER: That chicane planning committee would be full of chicanery.

MR. LUSK: Mr. Chair, I think we can talk about it a little bit with our witness.

But just to clarify for the Committee, these bike boulevard programs are within the Department of Transportation and Mobility's purview. And there's actually information online we can provide as an exhibit, if that would be helpful.

CHMN STAFFORD: That would be fine. And

even your witness could address it. Either way.

MR. LUSK: Sure.

CHMN STAFFORD: And you said -- so is it -- you said it's the Department of Transportation. Is it the City Department of Transportation or the --

MR. LUSK: That's correct.

CHMN STAFFORD: Okay.

MR. LUSK: The City Department of Transportation and Mobility.

CHMN STAFFORD: Okay. I'm just interested to know what the time frame was for it.

MR. LUSK: I was going to suggest, and we can see how this works out, there's actually a bike boulevard, but the chicanes that Mr. Bryner's talking about are fairly close to the route if we want to take a look.

CHMN STAFFORD: Excellent. Yeah, I'd like to see that. Thank you.

MR. LUSK: Sure.

MR. BRYNER: Yeah. If Mr. Lusk can point us to that, we can -- we can detour.

CHMN STAFFORD: We do need to talk about the tour before we wrap today anyway and kind of go over what the -- how it's going to go and then what's -- how you're going to describe things as we pass and make sure

we have all our ducks in a row, so we're -- because we don't want to have any -- you know, we can't -- we're not going to ask questions off the record. We're not going to have deliberations between members.

So just kind of it will be a script as we roll through. And then we can -- because it's an exhibit it has what you're going to say and what you're pointing out, so I think what we'll do is end up having the members -- you know, we can take that exhibit and make notes if we took -- for questions to ask when we're stopped and on the record about what we've seen and what's been described as we pass by.

MR. BRYNER: That sounds like a great plan.

CHMN STAFFORD: Okay. Thank you.

BY MS. HILL:

Q. Okay. Mr. Bryner, can you continue with Route 3, please?

A. (Mr. Bryner) Yes. So moving down, so we do continue down 7th Street. And it is primarily -- I know in the photo here you're seeing residential on the north side. Once you get a little bit further to the east, it's primarily just residential on the south side with institutional uses on the north side of 7th Street.

And I think I have a simulation. Oh, this is actually on Park Avenue, a different stretch of Park

Avenue than we've seen before. But this is south of 7th Street looking north. So you can see Park Avenue is substantially smaller or more narrow along this stretch than it was where we're proposing to place our route, Route B, and it -- oops. Wrong remote.

And so it is residential street in this area with no -- I don't know how that happened. Stop. I think we have ghosts going on in here.

No overhead utilities along Park but, again, we would be perpendicularly crossing this with our -- with our 138kV transmission poles.

Q. And to be clear, this is KOP 50, Mr. Bryner, and that is at 7th and -- where is KOP 50 on the map?

A. (Mr. Bryner) It's -- it's at Park Avenue -- on Park Avenue at 8th Street.

Q. Do you have that on Slide 160 or does that go to 161?

A. (Mr. Bryner) It's shown on Slide 160, correct.

And that's the very edge of the Pie Allen neighborhood. And then we'll be going into the Rincon Heights neighborhood.

Q. There it is.

A. (Mr. Bryner) I think, Grace, could you reset us again. Our slides got out of sync. Thank you.

Sorry, I missed that.

So before we leave the map and go to the KOP that you got a preview of, so over in this area we do have 46 -- so we turn south on Highland through the Rincon Heights neighborhood. And we do have 46kV infrastructure along Highland Avenue. Again, it's still a residential street with that existing overhead infrastructure.

And then we cross over Broadway Boulevard and into the Miles neighborhood. Here this KOP 9 is from the Miles Exploratory Learning Center looking to the north -- northwest. And if I point out in the current condition, you can see a pole there, another pole there, and I think there's a pole right there.

And so those are existing 46kV poles with distribution underbuild on them. Those would be removed as part of this project, and we would replace those with the 138kV poles that you see in the simulation.

CHMN STAFFORD: And that's the line going down Highland Avenue?

MR. BRYNER: Correct. That's on Highland Avenue.

CHMN STAFFORD: But you're looking from Miles?

MR. BRYNER: We're on Miles Street within the Miles neighborhood at the Miles Exploratory Learning

Center.

CHMN STAFFORD: Okay.

MR. ROBINSON: Can I add to your narrative, Clark?

This is the section that's shown in our notes along Highland that has collocated 46kV voltage alongside of the 138kV voltage; correct?

MR. BRYNER: That's correct. But as we -- as we discussed, that would be a temporary situation until we were able to remove that.

MR. ROBINSON: That's right.

MR. BRYNER: So just a little bit further south of that what you're seeing in KOP 8, this is in the Arroyo Chico. It's called the Arroyo Chico Multiuse Project, and it's under the jurisdiction of the Pima County Flood Control District.

And so they've got various flood control basins in here. And they've also developed some recreation uses. You can see the multiuse path and some other parkway uses and different things in here.

So we do have the existing 46kV line that runs actually through the middle of this basin today, and we would plan to use that same corridor for the new facilities.

Do you want to explain that?

MR. ROBINSON: Yes.

And in this rendering, we've shown the relocation of the 46 line on a joint-use structure here as it's put across. And what we would actually end up doing is doing a temporary shoofly as I described at the location of Vine Substation and temporarily set these structures off to the side to give us a clear window so that this structure for the 138 supports, which would be permanent, can minimize the height that needs to be utilized for this structure.

MR. BRYNER: Now looking back over at the map here. At this point we would cross over Aviation Highway, Highway 210, and the railroad tracks and on to the south side into an industrial area on Warehouse Avenue is what this is on and then follow down Cherry and then Cherrybell, and then we would share the same route as Route 1 and Route 2 into the Kino Substation. And that all is within an industrial area with the exception of along Martin where we do have those residents on the east side of the road.

BY MS. HILL:

Q. And, Mr. Bryner, those residences along Martin there are in the Pueblo Gardens subdivision; correct?

A. (Mr. Bryner) That is correct.

Q. Okay.

A. (Mr. Bryner) So taking a look now as we transition maps to Slide 165 looking at existing plans. So for this we have seven specific plans that are pertinent to Route 3. Of those just the University Area Plan makes any mention of the location of utilities.

And, again, we believe that our project will further the purpose of that plan by reducing the net overall -- by having a net reduction of the overall utility infrastructure in that area of 5.7 miles and would remove 64 poles from within that plan area. And it is consistent -- Route 3 is consistent with the other specific plans of the area.

As far as Gateway Corridors are concerned, Route 3 does make a perpendicular crossing at Broadway Boulevard at Highland Avenue. Again, we believe that we qualify for a special exception. There is an existing crossing of a 46kV there today, and we would just be replacing that infrastructure.

There is also perpendicular crossing of Kino Parkway near Aviation Highway that we would be crossing. And, again, we feel like we would qualify under a couple of the criteria for special exceptions of that crossing so that we could build this route overhead.

Q. Thank you, Mr. Bryner.

Are you prepared to proceed with --

A. (Mr. Bryner) Oh, got a couple more. Sorry.
Q. You've got a couple of more.
A. (Mr. Bryner) Yeah.
Q. I keep trying to push it forward. I'm really sorry.
A. (Mr. Bryner) Somebody's antsy.
Q. It's the maps. It's all the maps.
A. (Mr. Bryner) They all look very similar, but I promise they have different information on them.

So on Slide 167, this shows the various overlay zones that are pertinent to Route 3. There's -- we do cross through or adjacent to the Feldman's neighborhood preservation zone and the West University historic preservation zone, and we wouldn't be inconsistent with those -- with those zones.

And Route 3 crosses through or adjacent to four historic districts, and, again, similar to all the other routes, Route 3 would not have any impact, any effect on the designation of those historic districts.

And our Class I cultural resource analysis found three sites within the vicinity of Route 3. Two of those were found to be not eligible to be listed on the National Register of Historic Places and the other site had yet to be evaluated. There was a recommendation that we have a monitor at one of those sites.

Now, this line, again, it goes through the most residential of any of our routes and the most low-income residential of any of our routes. So I would say it has a higher impact on low-income populations.

A. (Mr. Robinson) And so just a few things that I would want to add.

This route has the highest floodplain analysis that needs to be done on it because where it's running there and its proximity to the Arroyo Chico Wash out there.

And as Clark had mentioned before, because it goes through so much residential area, it would take the most engineering analysis and have -- be the most difficult route for us to engineer and design on also.

So it is a viable route. If it's chosen by the Committee, we would be able to make this route work. But this is not our preferred route to design along.

I've already talked about some of the commonalities for this route, but with Route B there's a commonality along Adams into Vine at the Vine Substation, and at Route C we have a commonality from Euclid at Speedway over to Park north to Adams and into Adams and Vine.

A. (Mr. Bryner) All right. With that, I think we're ready for our route tour now.

MS. HILL: I have to apologize. I just woke up apparently.

BY MS. HILL:

Q. Okay. Please proceed, Mr. Bryner.

A. (Mr. Bryner) So starting at the Vine Substation Route 3 would proceed south along Vine Avenue to Adams Street and then west on Adams Street as we've seen with our preferred route, Route 4 and several of the other route alternatives as well.

And then it would turn south on Park Avenue, again, past the University Heights elementary school onto Speedway Boulevard just for a span or I guess you could call it two spans as we cross over onto Euclid Avenue.

Euclid Avenue, again, this is the same stretch that we saw for our preferred route, Route 4 through the West University neighborhood that's located on the right side of the screen. Well, it's actually located on both sides, but the more residential uses are on the right side.

Tucson High School we're passing by. And now we're going to turn onto 7th Street. So, again, you might see in this area this is the alleyway where our 46kV infrastructure goes today. So primarily residential in here, especially on the south side with more institutional uses on the north side of the road or the

left side of the screen.

You do pass the Mansfeld middle school and then onto Highland Avenue. Along Highland Avenue you do have the existing 46kV line today that will be removed as part of this project, but this is primarily single-family residential.

MEMBER RICHINS: Mr. Chairman.

MR. BRYNER: Pause?

MEMBER RICHINS: Could you pause for a second and go back. There's a line that trailed off --

CHMN STAFFORD: Could you get close to the mic, please.

Thank you.

MEMBER RICHINS: There's a line that trailed off if you go back a little bit.

So above the word "Highland" -- no. Go back. Keep going forward. Turn the corner.

MEMBER KRYDER: Into your microphone, please, Dave.

MEMBER RICHINS: I'm not saying anything.

MEMBER KRYDER: Okay.

MR. BRYNER: Right there?

MS. HILL: There.

MEMBER RICHINS: So you see above the word "Highland"? Yeah.

What's that?

MR. BRYNER: So that was a good catch. I was trying to gloss over this.

MEMBER RICHINS: I could talk quieter so the other guys don't hear me.

MR. BRYNER: I really wasn't trying to gloss over it.

But so our 46kV line that goes down Highland, it runs down Highland, and then it makes a jog on 8th Street and then comes back over to 7th Street right here. And so we chose not to follow exactly the path of the 46 so that we could straighten this -- the line out a little bit.

MEMBER RICHINS: So will you be circumnavigating that section of the neighborhood by power lines all the way around now to that block?

MR. BRYNER: This will be removed as part of this project.

MEMBER RICHINS: That will be removed. I misunderstood.

MR. BRYNER: Yeah. Yeah. All of that 46kV, that will be some of the old infrastructure that will be able to be retired.

MEMBER RICHINS: Okay. And then it appears as if this line is doubled on your simulation as you go

forward. It looks like you have lines -- two sets of lines on either side.

MR. BRYNER: That's also a very good observation. So this is --

MEMBER RICHINS: Are there been any bad observations or bad questions?

Because you always tell us we have good questions but never a bad question.

MR. BRYNER: Do you want me to tell you when they're bad?

MEMBER RICHINS: Yeah. Actually that would be fascinating. It would be interesting to see how that works out for you in the end, but that's okay. Go for it.

MR. BRYNER: I'll think about it.

So we do depict having the 46kV collocated with the 138kV in this stretch. Again, that's a temporary situation until we're able to retire that.

MEMBER RICHINS: Okay. Okay. Very good. Thank you.

MR. BRYNER: So the main -- the main road we're coming up on right here is Broadway Boulevard. That's the boundary between the Rincon Heights neighborhood and the Miles neighborhood. This is that Miles Exploratory Learning Center and the park that we

were looking to cross in our simulation.

Coming up on the Arroyo Chico multiuse area with the flood basins. As you can see, the lines running down the bottom of those basins. That's what Mr. Robinson alluded to with respect to some of the additional engineering that would be required there.

Crossing over Aviation Highway and the Union Pacific Railroad tracks into an industrial area and warehousing.

Crossing over Kino Parkway right here and onto Cherry Avenue, again staying with commercial, industrial uses, crossing over 22nd Street onto Cherrybell. Just as an aside, this is my favorite road for siting on because it's got the most setbacks, so it really accommodates the line very well.

And then we do our interesting jogs over to Martin Avenue. And this is what we've seen common to Routes 1 and 2.

The South Park neighborhood is on the west side of the road, and then Pueblo Gardens is on the east side of the road.

And then into the Kino Substation.

BY MS. HILL:

Q. Thank you, Mr. Bryner.

All right. So I think we have two routes left,

Routes 5 and 6.

Am I correct?

A. (Mr. Bryner) You are correct.

Q. All right. I did count correctly.

All right. And so we are proceeding now to Route 5.

Just reminding everyone that Route 4 is part of the preferred route that was the very first route that we covered.

A. (Mr. Bryner) Okay. Oh, sorry.

Q. No. Go right ahead. Please describe Route 5 to the Committee.

A. (Mr. Bryner) All right. So Route 5 -- both Route 5 and Route 6 you're going to see are going to be parallel to Aviation Highway and the railroad, so that's where, I believe, we made the caveat at the beginning that we have some of those concerns with respect to being able to secure railroad -- or easement from the railroad. And so if one of these -- this route or Route 6 were selected, we would want to make sure that there was an alternate provided.

So let me move into the description of this route.

So as far as cost goes it would cost around $13.6 million. It's just under 6 miles in length. It

goes through just a little over one mile of residential areas, all of which is low-income residential, and the majority of which is in historic districts.

It doesn't utilize a lot of overhead utility corridors, just two -- well, two and a half miles, 42 percent of the overall route, and as a result would place 1.6 circuit miles of distribution lines underground and 5.4 miles of overhead communication.

And we did not receive any comments in opposition to this route. And we received three comments in support of the route because it had less impact on neighborhoods. Of course, that all depends on whose neighborhood it is.

CHMN STAFFORD: Some neighborhoods comment more than others, huh?

MR. BRYNER: That is true.

Sorry. I think I'm getting confused on my remotes.

All right. So moving on to the route description. So we'll -- again, we'll start at Vine.

So this follows Adams, Park, and Speedway all the way over to Stone. So that is the same route as we talked about for alternative Route C coming between the DeMoss Petrie Substation and Vine. From that point south, though, now it's new, and it's something we

haven't seen yet on any of our routes.

So it continues south on Stone Avenue. Stone, again, is still a major arterial road in this area, but we still have those fairly narrow building setbacks. I think, yes, I have a photo simulation of this.

The Anza Park is located on the east side of the road or the right side of the screen, and that's something that you saw in previous photo simulations from a different perspective because the streetlights that you see in here, these are at the intersection with Speedway Boulevard, so we had a photo simulation looking across that.

CHMN STAFFORD: Okay. So we're looking at the map on Slide 177 and now KOP 63 on 176. Okay.

MR. BRYNER: Thank you.

And the land uses in this area are -- it's a mix I'd say in here between residential uses, primarily multifamily apartments with some commercial uses throughout this stretch.

This is a key observation point 62 a little bit further south on Stone Avenue still looking north at 5th Street. And you can see some of the buildings that do come in fairly close to the roadway.

I'm looking at this building on the east

side. And you do notice how we have our line crosses from one side of the road to the other. Another observation along Stone is we don't have any existing overhead utilities here today.

CHMN STAFFORD: Excuse me, I didn't catch that last thing you said.

MR. BRYNER: We don't have any existing overhead utilities along Stone today.

CHMN STAFFORD: Okay. Are they in the back alley? Is that where they're at?

MR. BRYNER: Primarily through this part of town they're in the alleys.

CHMN STAFFORD: Okay. Thank you.

MR. BRYNER: So from this point, Route 5 parallels the Aviation Highway. This stretch of Aviation Highway was recently finished. It also parallels the Union Pacific Railroad. And this is where I talked about there's very, very limited distance between the railroad and the roadway.

So looking at key observation point 59, this is looking towards the northwest. So on the east side of the road you do have some -- well, this is a multiuse building primarily residential on the upper stories.

And then you've got some other buildings

that come right up against the edge of the highway on the northeast side of the roadway. And abutting the southeast side of the roadway are the Union Pacific Railroad tracks, which are -- there's a fence along here, and they're just on the other side of that fence.

So there's a fairly narrow strip that actually gets more narrow as you come this way, and that's where we'd be looking to locate, which doesn't place the lines a great distance away from the railroad tracks, and that's where we would need to get the railroad to grant a variance to their design guidelines.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Is there any -- do you have any indication of when you might hear from the railroad?

MR. BRYNER: The time line that they provided was two years.

MEMBER LITTLE: Whoa. Starting when?

MR. BRYNER: As soon as we make application. So we chose not to make application, because we had so many route options and it was two years out we figured if they select this, we'll make application then and start that process.

MEMBER LITTLE: Thank you.

MEMBER HILL: Mr. Chair, I have a follow-up

question.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: Have you worked with this railroad in other corridors and been successful at getting collocation within the railroad corridors?

MR. BRYNER: Yes. We have worked with them. I'd like Mr. Robinson to maybe answer that.

MR. ROBINSON: Yeah. There's been several different 138 lines that we've worked with the Union Pacific Railroad on, and we've had good success with them in allowing us to permit and to work out some variances that have been requested in the past. They're very slow to respond and very slow to grant that variance, though.

MEMBER HILL: Follow-up question.

Have they ever said no to you?

MR. ROBINSON: I don't remember a scenario where they have said no. The other thing is we do have to complete our detailed engineering before we can make the application to them.

MEMBER HILL: Okay. I recognize that the railroad can be -- well, it's challenging to work with, but I just wanted to know if they had a history of working collaboratively with you guys on things.

MR. ROBINSON: Yes, they have.

This is a bigger ask in design variance

than we've had in the past.

MEMBER HILL: Can you characterize what makes it different or harder?

MR. ROBINSON: One, the structures are closer to the railroad tracks than in our other variances and the length of parallel is longer.

MEMBER HILL: Okay. That's helpful. Thanks.

MR. BRYNER: So key observation point 58, this is actually looking from more the downtown part of Tucson at Congress Street and 4th Avenue looking towards the northeast. So you can see some of that similar overhead infrastructure that you saw on University Avenue near Euclid for our preferred route that we were looking at. This is all part of the City of Tucson's modern streetcar, which also runs down Congress in this area.

So in our simulation you can see one of our structures poking up and visible from here.

MR. ROBINSON: Clark, can I -- can I amend my answer to Member Hill a little bit?

There has been an instance as you can see on the map -- can I see --

MR. BRYNER: Oh, sorry, this one.

MR. ROBINSON: Over here?

MR. BRYNER: That's the map.

MR. ROBINSON: On the map right here, there's a large Union Pacific switchyard in this area, right, and we had a permit to restring the distribution in this area, and the Union Pacific Railroad did say no to that request.

MEMBER HILL: Thank you for that response.

I think the switchyard is a uniquer situation.

MR. ROBINSON: Yeah.

MEMBER HILL: Because they might want to expand it, change it, change the footprint. I totally understand why that one might be much more sensitive, so thank you.

MR. BRYNER: So from this point, our route does join up -- Route 5 joins up with the same path as our preferred route, Route 4 at Aviation crossing onto Toole and Euclid Avenue where it follows Euclid Avenue south through the largely industrial area where we would have quite a bit of overhead infrastructure that we would move underground down into the more residential area in South Park.

And then it would utilize the existing 138kV line between Kino and Irvington to collocate the circuit on that -- on those same structures into the Kino Substation. So that would be common with our preferred

route, Route 4.

And as far as existing plans, same plans that we've seen on other routes we've looked at. Again, the University Area Plan is the only one that makes mention of utilities. Again, we'd further the purpose of that plan by resulting -- if this route were selected, we would have a net reduction of 5.7 miles of overhead utilities, and we would remove 12 poles within that plan area, and we would be consistent with all the other specific plans.

Route 5 would have a perpendicular crossing of the Gateway Corridor at Broadway while we were paralleling Aviation Highway. We would also have a second perpendicular crossing at Kino Parkway. Again, that would be on existing structures there where we would just add the additional conductors. So we believe that we would be granted special exceptions to both of those so that we can build this route overhead.

And as far as overlay zones are concerned, ones that we've already seen in other routes, and we would not be inconsistent with any of these overlay zones.

Historic districts, Route 5 would cross through or adjacent to five different historic districts, all of which would not have their designation affected if

Route 5 were selected and built.

It would cross through or -- cross through or adjacent to quite a few historic sites, though, that were -- that were identified in our Class I study. We found 14 sites that were within the vicinity of Route 5. Nine of those were determined to be eligible for listing on the National Register of Historic Places. Five were found to be not eligible or yet to be evaluated. And of those only two were recommended that we have a monitor present.

And as far as impact on low-income areas, Route 5 actually avoids more of the low-income areas because once it gets into that Aviation Highway corridor south, all of that area -- well, it's outside of residential areas, but it's also outside of areas that are designated as low income.

MR. ROBINSON: So most of the challenges that we're going to run into on the engineering side have already been previously discussed.

Just to highlight that along Stone Avenue south of Speedway we will have to cross the road in here because the building setbacks and just to highlight of the difficulty of construction along the new Aviation Highway segment that goes just north of downtown Tucson and the tightness of the corridor that we would try to be

building in between the railroad tracks and between Aviation Highway to where it heads south along Euclid Avenue.

The discussions of what we would do along Euclid Avenue and into Kino Substation have been previously discussed on Route 4.

And the parallel paths have already been discussed where a Route C would share a corridor from Stone Avenue along Speedway north along Park into Adams and into Vine if that route was chosen, if Route 5 and Route C were chosen as a combination.

BY MS. HILL:

Q. Okay. Mr. Bryner, are you prepared for the virtual tour for Route 5?

A. (Mr. Bryner) Yes.

Q. All right. Please proceed.

A. (Mr. Bryner) So Route 5, again, beginning at the Vine Substation in the North University neighborhood follows the same path we've seen for our preferred out along Adams Street over to Park Avenue past the University of Arizona and some of the student housing.

It continues, though, down Speedway Boulevard. And here you can see our zigzags from one side of the road to the other due to the limited building setbacks.

And it's West University is on the south side of

the road or the left side of the road, and Feldman is on the north side or right side.

You can see the Pima Community College campus over in this area that was -- we were adjacent to that for Route C, and we will be for Route 6 as well.

Now we're onto Stone Avenue. Again, we have a couple of zigs and zags from one side of the road to the other. You can see some of the buildings, how close they come to the roadway. There's not a lot of room.

Approaching downtown Tucson towards the top of the screen.

Winding our way over to the entryway to the Aviation Highway.

Now we're following the Aviation Highway. The railroad tracks are visible more on the right side of the screen near the purple line. So you can see the distance between the edge of the pavement. And we mentioned this road was just built. You can't even see the striping in this area, and it doesn't look like all the pavement is here, but it is a fairly narrow strip of land between the railroad and the highway.

MEMBER FRENCH: Mr. Chairman.

CHMN STAFFORD: Yes, Member French.

MEMBER FRENCH: A portion of your Route 3 that we previously saw parallels the railroad and

Aviation Highway. And at this point the line is also paralleling Aviation Highway and the railroad but then turns south.

Is there anything depicted here or do you have any other engineering constraints as to why you didn't parallel or show a route that parallels from Route 3 where it crosses Kino Parkway to this location?

MR. BRYNER: So, well, we do have the concerns about the railroad and this -- the whole stretch. And we felt like the route -- and so there's a couple concerns, I guess. So you've got -- one, you've got ADOT. So we'd be in ADOT right-of-way in all this stretch. And then we've got the railroad as well. So those are both -- they're not -- they're just challenges to be overcome, I guess.

And so avoiding that when we had other opportunities -- we also don't have, you know, rights to be in ADOT right-of-way, whereas we do have rights to be in city road right-of-way.

And so where we had existing infrastructure and we were going through largely industrial areas we felt like we had a good path south out of this way on Euclid and didn't need to include the option of continuing to parallel Aviation Highway over to the intersection of Route 3.

MEMBER FRENCH: Okay. To make sure I'm understanding correctly, the areas that you've indicated in this route and in Route 3, you have had previous access to because you've had infrastructure already there, and the area paralleling the railroad and Aviation Highway between this point and Route 3, you don't have any infrastructure, so that's presenting other challenges?

MR. BRYNER: So yes and no.

So we don't have any infrastructure on this stretch that we just went over today either.

Sorry. Mr. Robinson was going to say something.

MR. ROBINSON: Yeah. Member French, there's also a little bit of difference between Route 3 and Route 5 and 6, that parallel condition.

In Route 3 the parallel section of that line is on the south of the railroad tracks and on the south of Aviation Highway. And it's along the road front that goes alongside of the railroad tracks.

And on section Route 5 and Route 6, the route is between the railroad tracks and the Aviation Highway. And that's just a tighter corridor, which means we're closer to the railroad tracks in those scenarios.

And so we didn't evaluate a route that

would continue along Aviation Highway because of the difficulty to build between the railroad tracks and Aviation Highway down to the railroad crossing at Route 3 where we have it depicted on Route 3 because of that difficulty.

MEMBER FRENCH: What exactly are those difficulties?

Is it space constraints?

Is it permitting constraints?

MR. ROBINSON: It's a combination of both of those things, right. There's not space, and we don't have -- we don't have a permitting mechanism for ADOT, so we would be asking for variances both from ADOT and from the railroad -- Union Pacific Railroad for that route along those highways and the parallel tracks.

And in addition to that, there's very little space in that corridor.

MEMBER FRENCH: Okay. Thank you.

MEMBER HILL: Can I follow up on that question?

MR. ROBINSON: Sure.

MEMBER HILL: And I'll move closer to the mic.

CHMN STAFFORD: You read my mind.

MEMBER HILL: With Route 3, you do go to

the south side of the railroad line. So you cross Aviation Highway, you cross the railroad tracks, you go to the south side of the line.

Is that an alignment option for Route 5 and 6?

Why did you choose the middle, or could you cross both Aviation Highway, the railroad like you had proposed in Route 3, and run it along the other side?

Can you talk -- we didn't look at the land use or the constraints on that side.

MR. BRYNER: Yeah. So let me address Route 3 where we're parallel.

So in that case not only are we on the other side of the Aviation Highway, the railroad tracks, we're also -- there are buildings, there's warehouses in between there and the frontage road that Mr. Robinson was talking about.

So we're even -- even further south. So we're nowhere close. There's no aerial encroachment. There's no nothing to do with the railroad.

Looking at where Routes 5 and 6 run parallel, there is no opportunity to do that. You jump over to the south side of the railroad tracks there's no road -- frontage road running along there like there is on Warehouse Avenue is what we were paralleling for

Route 3, and you're literally in downtown Tucson.

MEMBER HILL: Oh, okay.

MR. BRYNER: And so you've got dense development. It's just it would be very messy.

MEMBER HILL: Okay. Thank you.

I was just trying to compare the two.

Thank you.

MR. BRYNER: Grace, I think we're good to proceed.

I guess we could back up if you wanted to see that?

CHMN STAFFORD: No. Thank you.

MR. BRYNER: Okay. So here we've entered Toole Avenue. And we're going to -- once we go around this bend here, we'll be back on Euclid Avenue. So, again, all these uses -- the land uses in this area, these are all industrial commercial buildings. And there are existing overhead facilities throughout this stretch. They're distribution voltage.

Up into this area now we do get some 46kV voltage that will be also removed ultimately as part of this project with distribution.

And this -- again, this is the same route as our preferred route, Route 4 as we go through here.

There were a couple of substations that we

flew by. And we're going to -- on our route tour tomorrow we'll swing into one of our old substations so that you can take a look at and take a -- get a firsthand account of why we need to get these replaced.

So this is the residential area that we've spoken about in the South Park neighborhood.

36th Street, we're coming up on. We'll turn to the left and parallel 36th Street for a couple of spans before we join up with the existing 138kV line between Kino and Irvington, and then we'll join those circuits.

And, again, in this area you're not seeing it on the simulation, but on the north side of the road there are 46kV lines and distribution lines, and we would remove those, so you would see a situation similar to what you're seeing in the fly through is what the ultimate build would look like.

And then crossing over Kino Parkway. I think there might have been an earthquake that happened there. The road looked like it had a bit of a jog. And then into the Kino Substation.

BY MS. HILL:

Q. Okay. Thank you, Mr. Bryner.

And last but not least we still have Route 6.

CHMN STAFFORD: We've been going for, I

believe, 90 minutes or more, so let's take a 15-minute recess and let the court reporter rest her hands.

MS. HILL: All right.

CHMN STAFFORD: With that, we stand in recess.

(Recess from 3:19 p.m. to 3:44 p.m.)

CHMN STAFFORD: All right. Let's go back on the record.

We're about to do our final segment number 6.

MS. HILL: That is correct. So thank you, Mr. Chair.

BY MS. HILL:

Q. Mr. Bryner, are you prepared to discuss alternative Route 6 with the Committee?

A. (Mr. Bryner) Yes, I am.

Q. Okay. Could you please proceed.

A. (Mr. Bryner) Okay. So Route 6, the beautiful part about Route 6 is we've seen every section of this already for the other routes, so this should go fairly quickly.

Route 6, as you can see, is very long, so it's 7.6 miles. And as such it's one of the more expensive routes at $14.8 million. But one of the reasons why it is so long is it was intended to avoid more residential

areas, avoid some of the specific plan areas. So it only goes through .7 miles of residential. Of that, all is within low-income areas and it does go through one mile of historic districts.

So it does utilize a lot of areas with existing overhead utility infrastructure, but because it is so long it is less than 50 percent of the route that has overhead utility infrastructure on it today.

We would put one and a half miles, circuit miles of distribution underground if Route 6 were selected and 4.9 miles of overhead communication wires would be moved underground or relocated.

There were four comments that were received in opposition to Route 6. All spread around different areas. Too narrow of roadway, less direct, more costly, and then impacts to transit, including pedestrians.

And we received 22 comments that were in support of this route. Primary amongst those was less impact on neighborhoods, also uses arterial roads and more direct but, again, I don't understand that one because it is a longer route.

I'm just really going to verbally describe this route, but I'm not going to go into very extensive detail.

So Route 6 begins at the Vine Substation, heads

east on that corridor between Ring Road and Lester, north on Campbell, west on Grant, same route as we've seen for -- this is the same route as Route D up to this point, and then this is where -- and then south on Stone.

So this is common with Route C. All the way down to Speedway Boulevard at which point it becomes common with Route 5 that we just went over.

I do have one photo simulation for Route 6 that I will share. This is from a key observation point that we've looked at before, key observation point 63, but models the infrastructure slightly differently, because it illustrates the 138kV lines continuing north along Stone Avenue instead of veering to the east along Speedway Boulevard.

So, again, we've seen this before. Stone Avenue doesn't have any existing overhead utilities today. It also has some fairly narrow setbacks to the existing buildings which would require us to criss-cross from one side of the other in several places.

Route 6 continues down Stone Avenue until it meets up with Aviation Parkway, follows along Aviation, sorry, Aviation Highway in a southeast direction. This is the location that we talked about for Route 5 where we have the concerns with the Union Pacific railroad and the ADOT right-of-way. Same location.

And then it enters into the common route with both Routes 5 and our preferred route, Route 4, down Euclid Avenue to 36th Street, and 36th Street into Kino, again being collocated with the existing 138kV structures between Kino and Irvington.

The existing plans on this are all ones that we've talked about before. The one thing that I just want to mention is the University Area Plan, and the language in that plan with respect to the location of utilities. Again, for Route 6 we believe that it would further the purposes of that plan and would result in a net reduction of 8.9 miles of overhead utilities and the removal of 29 poles from within that plan area.

And it would be consistent with all other specific plans.

The Gateway Corridor crossings are the same as Route 5.

The overlay zones are the same as Route 5 with the exception of the Jefferson Park Neighborhood Preservation Zone. Again, Route 6 would be consistent with all of these overlay zones.

Route 6 goes through or adjacent to six historic districts. Again, these are the same as Route 5 with the exception of Jefferson Park and being located adjacent to the Catalina Vista Historic District and

Route 6 would not have any impact on the designation of those historic districts.

And the class 1 cultural resource results for this were the exact same, same sites as Route 5, so I won't go into those.

And because of the length of Route 5 -- or sorry -- of Route 6, it does go through more low-income areas but since it's designed to avoid more residential areas fewer of those are within residential areas.

A. (Mr. Robinson) So as Clark mentioned before, we've pretty much talked about all of the challenges that we would encounter building along this route in other route selection and other route opportunities.

Route 6 does share commonality with all four potential routes from DMP to Vine and Route C as Clark had said along Stone Avenue is common to Route C. Around -- along route A, B, C, and D, it's common along Grant over to Park, Vine, and then over to Campbell and in along Vine common to Route D.

The rest of the challenges encountered with building this route from an engineering perspective have been previously discussed during this hearing.

Q. I'm sorry. Mr. Robinson, could you just refresh the Committee's recollection about whether this route has any concerns about needing to double stack?

A. (Mr. Robinson) Yes. So that would be according to the routes that are common listed here before. There would be double circuit potentially in a stacked or a side-by-side configuration depending on the requirements from the detailed engineering that we need to do from Stone at Speedway up to Grant if Route C is chosen.

If Route B is chosen, it would be double circuit from Stone along Grant over to Park Avenue.

If Route A is chosen, it would be double circuit from Grant and Stone over to Vine. And if Route D is chosen, it would be double circuit configuration from Stone Avenue along Grant over to Campbell Avenue, south on Campbell to the Lester/Ring Road corridor, and then west on Ring Road, Lester into Vine Substation.

Q. Okay. And are there areas of that where you might have to use the taller pole because you would have to stack?

A. (Mr. Robinson) Yes, that's correct. There are some areas where the building setbacks and the vertical crossovers may require us to go with a vertical configuration versus a side by side configuration which would result in a structure that is 20 feet taller than what our normal consideration would be.

Q. Thank you, Mr. Robinson.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Question for Mr. Bryner or Mr. Robinson.

Does Route 6 also come to the Tucson Substation, which is not depicted on the map?

MR. BRYNER: Route 6 does not come to the Tucson Substation. It does come into fairly close proximity to the Tucson Substation. Both Routes 6 and 5 would come within I'd say a quarter mile.

MEMBER GOLD: Gotcha. Thank you.

MR. ROBINSON: Yeah. Maybe even less than a quarter of a mile.

MR. BRYNER: And for those who, just to help folks to understand where the Tucson Substation is located, it is located -- well, can't really pinpoint it with this but it's in that area right there. Close to that little jog in the Dunbar Spring pink line.

MEMBER GOLD: Would it help with redundancy if it did touch the Tucson Substation?

MR. BRYNER: I don't think I'm the right person to answer that question, but what I can answer is we don't have a location to land that line in the Tucson Substation without rebuilding it, and there's no space the rebuild it.

MEMBER GOLD: Answers my question. Thank

you.

MEMBER HILL: Mr. Chairman, I have a question.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: So I want to revisit -- so thank you for the overview of all of these. Adams Street seems to be the preferred corridor, the preferred street in proximity to Vine for several alternatives, the use of Adams Street.

Mr. Bryner, you talked a little bit about the 46kV line that's already in the alley, this particular street might be a little bit more familiar with having this type of infrastructure in proximity to them.

In several of the scenarios or options, we go south and come across Lee or come across Adams and pop back into the Vine Substation.

I'm just curious why Adams and not -- there's -- feels like in some scenarios there's a more direct route like Elm or Lee, the ones that are little bit further north. Can you talk a little bit about why you guys landed on Adams versus Lee or Elm or Lester? Because all of those kind of dead end -- could dead end at the Vine Station.

MR. BRYNER: Sure. Yeah, Member Hill, to

address your question so, again, we focused on the opportunity that was before us was that 46kV line. So that was in the alleyway between Lee Street and Adams Street.

So when it became not a possibility, we focused what we were looking at at Lee Street and Adam Street as opposed to Lester or some of the other streets. Those are all residential streets through there, including Adams, they're all residential streets.

But we wanted to focus it on Lee and Adams, again, since that's where the 46kV was at that would be removed. And so it's a less dissimilar use to what is there today. And when looking at Lee and Adams, Adams was better because it was a little bit wider and it had about half of that stretch that has parking lot and other uses on it, whereas Lee is residential on both sides.

MEMBER HILL: Okay. That's super helpful.

CHMN STAFFORD: Are you finished with your direct for this panel?

MS. HILL: We -- so I have two questions. Does the -- does the Committee want to see the virtual tour of Route 6?

CHMN STAFFORD: I personally don't feel like I need to see it, seeing how we've seen every chunk of it in context of a different segment. So I don't --

Members, do you want to see the virtual tour of Route 6? I think we've already seen it.

MEMBER KRYDER: We agree with you, Mr. Chairman.

MS. HILL: Okay. Thank you.

And so we forego the virtual tour of Route 6.

And then I have one further question for the panel before I turn this -- for the Committee before I turn the panel over the cross-examination.

Would you like a brief summary from Mr. Bryner comparing the routes, that -- all of the numbered routes, comparing all of them and comparing all of the lettered routes. We do have one prepared. What does it take, Clark, five minutes?

MR. BRYNER: Probably.

MS. HILL: Or we can move straight into cross.

CHMN STAFFORD: Members?

MEMBER DRAGO: I vote straight into cross. I might learn something.

CHMN STAFFORD: We can have them, you may have to do that on redirect or something, but I'm sure we'll end up hearing it eventually. But the other parties have been waiting patiently all day to ask their

questions and I'd like to give them that opportunity today. So --

MS. HILL: I think that's terrific.

Okay. All right. So then at this point, I also just want to make sure that we move the tour exhibit into -- that we lay some foundation for the tour exhibit for tomorrow in case we conclude after cross.

CHMN STAFFORD: Well, after cross, before we recess for the day we're going to talk about that.

MS. HILL: All right. I'll take that time then.

CHMN STAFFORD: Thank you.

MS. HILL: Okay. All right. Thank you, then. So at this point, then, the panel is available for cross-examination.

CHMN STAFFORD: All right. Banner Health, Ms. De Blasi.

MS. DE BLASI: Thank you, Mr. Chairman. We do have questions for the panel.

CROSS-EXAMINATION

BY MS. DE BLASI:

Q. Thank you so much, gentlemen. Your descriptions over the last two days have been really helpful to understand the routes.

Could I have the simulation area along Lester and Ring Road from the video? Very good. Okay. Thank you.

Just for everyone, this is the simulation video from Route D-1 that was shown by the applicant.

And I'm going to be focusing on Routes D-1, 6, and A particularly because those are all the routes that go north and east from the property, from Banner's -- north of Banner's facility.

So -- and probably going to be mostly directed at you, Mr. Bryner, but whomever feels most appropriate to answer is fine.

So I guess as a general matter, in your planning for routes that are for hospitals and medical facilities where your lines are going near, are these considered sensitive receptors for noise emission levels and interference with communication signals?

A. (Mr. Bryner) They're considered sensitive receptors for noise, not necessarily for communication signals. We do -- in the application it kind of groups those under the same factor which is located under Exhibit I of our application. But it's just the noise.

Q. Okay. Terrific. And Mr. Bryner, could you just please generally describe this video again, this, what's showing on the screen to just sort of orient us again to

what the roads and where the line would go in relation to the medical campus?

A. (Mr. Bryner) Sure. I'd be happy to.

So on the left side of the image on the screen is the medical campus, basically bounded by Ring Road on the north side of that. And then you have a, it's a retention basin/park that was built, I believe as part of the university -- or the medical center's expansion recently that goes up to Lester Street. Lester Street runs east/west north of that Parkway and is the boundary between essentially the hospital and the Jefferson Park neighborhood.

And we would propose our line to run somewhere in that corridor between Lester Street and Ring Road.

Q. Okay. Terrific. And can you just, I know you mentioned that you might be adjusting the boundaries based on the conversation yesterday of the requested corridor, but can you just describe here what would that corridor -- the width of the corridor be and what would be encompassed as shown on the video here, or is it something narrower for this area?

A. (Mr. Bryner) So for the -- so there's two things that -- we're requesting a corridor to give us some flexibility with our siting of our poles and then there's an ultimate right-of-way width.

I'll speak to the corridor and then maybe I'll have Mr. Robinson speak to the right-of-way width if that would be okay.

Q. That would be terrific.

A. (Mr. Bryner) So as we've mentioned, the Committee was uncomfortable with our 400-foot-wide siting corridor, and this is really the primary reason why we were asking for 400 feet was so that we could have the flexibility in this area. We didn't need 400 foot along Campbell or along Euclid or some of those roads, but in this specific area you can see the distance between Ring and Lester, and we wanted to have the flexibility that we could be located along either one of those roads.

Ring Road as I mentioned is a private road and it's owned by Banner. And so we don't have any rights to go along that roadway today. Whereas Lester is a city road and so through our franchise agreement we would have rights to locate within that road right-of-way.

And so for that purpose that's why we've illustrated the lines going down Lester. If we minimize these road widths -- or sorry -- the siting corridor that we would request, so that if the Committee was uncomfortable with us continuing to have this flexibility of 400 feet in this area and wanted us to focus on one street or the other, then we would focus on Lester

Street, since that's where we have rights today.

And I don't know what Banner's position would be when we approach them to secure rights on that private property.

Q. We'll have a witness to talk about that as well.

Okay. And so the easement itself including the overhead and blowout, what would that look like?

A. (Mr. Robinson) So the easement anticipation along Lester Road would be the road right-of-way plus 15 feet of easement into the -- into the private property if -- I'm sorry -- plus 15 feet into the private property maximum if it's a single circuit configuration.

Or a single -- a double circuit configuration that's considered a vertical where both circuits are on the same side of the structure.

A double circuit configuration where the circuits are side by side, we would need the road right-of-way plus an additional 30 feet of right-of-way on the private property side for blowout.

Q. Okay. Terrific. And so you're requesting from this Committee, just to be clear, that it include -- the corridor for siting would be along Ring Road so that potentially you could site the line down Ring Road, understanding it's private and all of those things. But it would be included in the siting corridor?

A. (Mr. Bryner) Our preference if the Committee were willing to do that, to give us that flexibility would be to keep it the width that we have today in this location. So that we could -- we could go down either road and we could work with Banner, work with the neighborhood to site those poles.

Q. Okay. Understood. And what would the setbacks look like then if you were to go down -- well, I guess let's cover either road. So what would the setbacks look like there for siting in those two roads?

A. (Mr. Bryner) We're talking about the setback from the pavement?

Q. Correct.

A. (Mr. Bryner) I'll let Mr. Robinson address that.

A. (Mr. Robinson) So that depends on where the sidewalks are and the edge of right-of-way are. And that will require us to do detailed engineering for me to answer that question.

Q. Okay. But depending on where they were, you've got the retained area, that was the agreement between Banner and the neighborhood on the -- I guess in the middle of those two roadways, so is it more likely that you would go on the south side of Ring Road or would you still impact that area? I don't know if you guys have

looked at that yet or not, but --

A. (Mr. Robinson) Give me just a minute to consult with --

Q. Oh, sure.

A. (Mr. Robinson) The ideal placement along Ring Road would be to be in the retention basin on the north side of Ring Road.

Q. Okay. And I don't know if you can see, it's sort of -- there's some text covering up to building, but from the -- can you tell from the height of these buildings on the Banner side that they are as tall and taller than the lines that would be there, that the viewshed is directly in front of that building?

A. (Mr. Bryner) So I don't know the heights of the building but I would say in looking at the video that illustrates those 3D buildings, if that's a correct height, that just comes out of Google Earth, but if that's a correct height I would agree that those are as tall or taller than the poles.

Q. Okay. Terrific. And to illustrate that, can we go to applicant's Exhibit G? It's page 757 of the application. It's showing KOP 29.

Okay. Terrific. I don't know if you can tell from this photograph. Or if you can see it, maybe you can zoom in on your iPads. But, Mr. Bryner, can you

explain what's in -- what's been described on this KOP 29?

A. (Mr. Bryner) Sure. So this is a simulation from the parking garage at Banner. And so it's looking out over the retention basin and park area that we were looking at from a different perspective. We were looking over from Campbell over this direction. The Jefferson Park neighborhood is located right here. Lester Street or -- Lester Street is located on the north side of the Park. And it's a view looking towards the Catalina mountains.

Q. And that's a current view; correct?

A. (Mr. Bryner) That's the current view. And I guess, let me describe what we're seeing in the simulation as well, then. And so in the simulation, we're showing our poles cutting across that view along the northern -- along the southern side of Lester Street.

Q. Okay. And this was taken from what vantage point?

A. (Mr. Bryner) It was on the top level of the parking -- I know there are several parking garages on the hospital campus, but the parking garage located closest to Ring Road on the eastern side of the campus.

Q. Okay. And those are the Catalina mountains in the background?

A. (Mr. Bryner) Yes.
Q. Okay. And are those -- I don't know if you can see them, it's hard to tell from this far away, but are those 46kV lines in the top in the current photograph, you can kind of see in the middle of the photograph?
A. (Mr. Bryner) Sorry. Yes, it is. I was going to point them out, but my remote -- there we go. Yes, these right here, that's a 46kV, 46kV pole, 46kV pole. And those are the poles that run in the alleyway between or just north of Lester Street, and then run up along Martin Avenue toward Grant.
Q. And what's the approximate height of those poles? Do you know?
A. (Mr. Robinson) 45 feet.
A. (Mr. Bryner) 45 feet.
Q. Okay. And so in the simulated -- the bottom photograph showing the 138kV line, what is the approximate height of that pole and lines?
A. (Mr. Bryner) I'll let Mr. Robinson answer.
Q. Okay. Yeah, whichever?
A. (Mr. Robinson) So the simulations were based on the application -- the applied structure heights that we put into our application. I believe this is shown at a 90-foot structure.
Q. Okay. So about double the height?

A. (Mr. Robinson) Close, yes.

Q. Okay. And as we saw on the previous video, there were buildings that were, you know, pretty tall in that simulation. Would you say here as well that in the bottom photograph, that that line would be directly visible from somewhere in -- I know you don't need to testify to the height of the building, but it would be visible somewhere in the eye -- direct eyesight of the windows on the side of the Banner building, the hospital?

A. (Mr. Bryner) Yeah, I would agree that it would be visible.

Q. Okay. And this would be the case for Routes D, 1, 6, and A? I know A is a different configuration that's shown here, but it would essentially be going north. Would you agree with that?

A. (Mr. Bryner) I would agree with 1, 6, and D.

A is located along Vine Avenue further to the west of here. And I believe there may be vantage points where it would be visible from the hospital, but I don't believe that it would obstruct this view.

Q. Correct. Yeah. Understood.

Are you aware of -- well, let me ask you this first while we're on this circuit.

There's been some discussion that this line might be double circuited, whether it's stacked or side

by side. If that was the case, would it make -- first of all, is that what's shown in this photograph? Or is this a single line?

A. (Mr. Bryner) This shows a single circuit, yeah. Single circuit.

Q. Okay. So if it was double it might be more prevalent to the viewshed?

A. (Mr. Bryner) Basically you'd see what you're seeing right there with, in this case we shouldn't need to do this stacked configuration that Mr. Robinson was talking about. But we could have that side by side configuration, so it's going to look fairly similar to this, but you're going to have three more sets of wires in there which could throw a little bit more, I guess, wires in the viewshed.

Q. Okay. And that would go all the way to Campbell Avenue on Routes D -- D-1 and 6; correct?

A. (Mr. Bryner) Correct.

Q. Are you aware that there are life flight helicopter operations that are going on at the hospital? Has that been brought up to you in discussions with Banner?

A. (Mr. Bryner) It has not come up in our recent discussions with Banner. I know that was a matter of discussion in the previous siting study.

Q. Okay. And might power lines -- have you sited before where power lines impact the, you know, flight paths of helicopters in that kind of situation?

A. (Mr. Bryner) Sure. That's something that we consider in the siting of any of our power lines.

Q. Okay. And as I mentioned, we'll have a witness discussing these issues for that. But there's a chance that that height of this line might interfere with the path of a helicopter trying to land at the hospital?

A. (Mr. Bryner) It's something to be considered. We don't believe that these poles would be an interference with that.

Q. Okay.

MS. DE BLASI: I think that's all I had, Chairman.

CHMN STAFFORD: Thank you.

Next let's have City of Tucson, Lusk.

MR. LUSK: Thank you, Mr. Chair.

CROSS-EXAMINATION

BY MR. LUSK:

Q. Mr. Bryner, I'm going to try not to jump around but I might, so I apologize ahead.

Real quick, we're going to go back to the witness presentation Slide 54, I believe, if we could.

While we're getting there, I'll go ahead and ask my question. We talked about the slide itself.

I believe what's depicted in that slide are some poles that you described as being removed, and it's not specific to a particular pole but you suggest that the distribution poles in particular areas will be removed; is that correct?

A. (Mr. Bryner) Can I wait until I see it or I can open it up in my --

Q. Well, just generally, you're on -- all of the routes you're going to remove some distribution poles; correct?

A. (Mr. Bryner) That's correct.

Q. Can you talk about sort of the -- how the plan for that works? Is it you will remove the poles after the new poles are installed and energized? Or is there some lag in that?

A. (Mr. Bryner) I think I'm going to defer that to Mr. Robinson if that's okay.

Q. Thank you.

A. (Mr. Robinson) So relocation of the distribution system will take place prior to construction because we need that distribution corridor clear.

There are some scenarios shown here where the transmission line is on the opposite side of the street.

But in order to execute the overall project, we would do all of the distribution undergrounding prior to installation of the overhead transmission line.

Q. And Mr. Robinson, does that include the communications on those distribution poles?

A. (Mr. Robinson) The communication relocations would need to be coordinated with the owners of those facilities as joint-use attachers.

Q. So I think we have 54 up here.

I believe there's a communications pole in this slide. Is that right?

A. (Mr. Robinson) Yes, I believe that the wires that are shown on the west side of Vine --

Q. Yes.

A. (Mr. Robinson) -- are communication poles, communication wires.

Q. But there's no -- that's not a TEP distribution pole?

A. (Mr. Robinson) That's correct. We don't have any distribution facilities on this wire, and I believe during Mr. Bryner's testimony, he said these would not be relocated because we don't own these poles.

Q. And in a hypothetical where you would need to go down whatever route was chosen, you would not be able to build over that pole, though; correct?

A. (Mr. Robinson) No, that's actually incorrect. We can -- we build over joint-use communication on a regular basis.

Q. So you would build a transmission line above that pole and that pole would remain?

A. (Mr. Robinson) That's correct.

Q. Okay. Is there any sense -- so in terms of the communications themselves, you will remove the distribution from those poles, but if there are communication lines you have to wait for that communication company to do whatever they're going to do?

A. (Mr. Robinson) To coordinate the undergrounding. So during our design process, we would coordinate with all the joint-use attachers and make them aware of the project that's coming up, and allow them time to codesign with us and collocate in the trench that we're putting our facilities underground with.

But they would have to transfer to those facilities, usually it takes place after we've relocated the distribution and taken it out of service.

Q. Do you have a sense of how long that process might take or in your experience how long it has taken, I guess?

A. (Mr. Robinson) In our experience on projects like this, it generally is a matter of a month or two

within when we've relocated our distribution.

Q. So we're not talking about -- and I think what I'm trying to get some clarity on, and I -- maybe it might be helpful for others to get clarity on it, is there was discussion about that the total undergrounding of the distribution lines and those sorts of things could take up to 10 years and I want to sort of -- that sounds pretty -- I mean that sounds scary to me, but I want to make sure that we're not giving the false impression that they're just going to be both poles for ten years. It sounds like that's more to complete the whole project. Does that sound right?

A. (Mr. Robinson) That's correct. That would involve the retirement of all of the 46 facilities and the eight substations that we intend to take out of service. And that transition of load between the 46 system, 4kV system, and the new 138, 14kV system, that's the ten-year window that we're talking about there.

Q. So is there a tighter window that we can sort of talk about for just distribution and communications? Because I notice for every route you list the amount of communications and amount of overhead distribution that you're going to underground. Is that a lesser time than ten years, I'm guessing?

A. (Mr. Robinson) Yes, it is. So as I previously

just testified, the distribution underground relocation will take place prior to the installation of the transmission facilities. And the coordination of the joint-use attachment relocation will begin at the time that distribution is undergrounded. It's usually completed within a month or two of when we are underground.

Q. Thank you. That's helpful.

A. (Mr. Bryner) If I could just clarify real quick, Mr. Lusk.

Q. Sure. Go ahead.

A. (Mr. Bryner) The ten-year time frame is primarily for that conversion work from the 4kV to the 14kV, which goes well beyond the areas that would be affected by the transmission line.

Q. I gotcha. And I think you mentioned earlier, Mr. Bryner, that the joint-use attachers attach to distribution poles but not necessarily to those transmission poles, or are the lower voltage transmission poles available for joint-use attachers as well?

A. (Mr. Bryner) I think Mr. Robinson can -- so I'll let him.

Q. Thank you.

A. (Mr. Robinson) Can you re-ask that question?

Q. Sure. I guess my question is are the joint-use attachers, are the lower voltage, the 4kV and the 14kV, available for joint-use attachers and are you allowing that?

A. (Mr. Robinson) Yes. So according to federal regulation we have to allow that on distribution voltages. We do not have to allow that on transmission voltages. That's only allowed by our own acceptance if we choose to on high voltage.

Q. Thank you for that clarification.

As we're talking, I think we can go, let's see, I want to talk generally about the special exception process that you've discussed throughout.

It affects several of the routes; correct?

A. (Mr. Bryner) I think it affects all of the routes.

Q. Right. You're correct. And then the way it affects the routes is little bit different, right? So all of the routes cross perpendicularly a Gateway Corridor Zone; is that correct?

A. (Mr. Bryner) That's correct.

Q. And several of the routes are not -- don't just cross, they actually are within or parallel to a Gateway Corridor?

A. (Mr. Bryner) That is also correct.

Q. You mentioned earlier that you feel confident that the special exception process would apply in situations where you would cross perpendicularly?

A. (Mr. Bryner) We've never been through the special exception process. But the way we read the criteria we feel like if we're interpreting it correctly, then we feel like we qualify, and it wouldn't be a problem.

Q. Thank you, Mr. Bryner. And just to clarify, you had input on its creation, that specific special exception process?

A. (Mr. Bryner) Yes, that is correct.

Q. And just to clarify, and if you don't know the answer to this please feel free to say so, we will have a witness available to talk about this.

But there are actually two separate special exception processes involved in this project; correct?

A. (Mr. Bryner) Yes.

Q. And can you just -- if you feel comfortable can you differentiate them just slightly?

A. (Mr. Bryner) So we have the special exceptions associated with the Gateway Corridor Zone that we've talked about extensively.

And then the Vine Substation would require a special exception as well.

Q. Okay. And I'm going to refer you just to -- to be clear for the Committee that for right now we'll be talking about the special exception process for the Gateway Corridor Zone. Is that fair?

A. (Mr. Bryner) Yes.

Q. Okay. And because the crossings of the Gateway Corridor Zone are perpendicular, that is actually one of the criteria for that special exception process; correct?

A. (Mr. Bryner) Yes.

Q. For the sections -- now, there are sections, and actually I apologize, I don't recall the actual exhibit. But if we could go to just a general map of the various routes?

MR. BRYNER: Grace, could you go to Slide 43?

MR. LUSK: Thank you, Mr. Bryner.

BY MR. LUSK:

Q. While we're getting there, Mr. Bryner, I'm going to ask you, did you participate in the special exception process from the Vine Substation?

A. (Mr. Bryner) I did not.

Q. Okay. Who in your organization did, if you can recall?

A. (Mr. Bryner) So Brian Pugh, he's our supervisor in our land resources over environmental and land use

planning. He -- I believe he led up that process.

Q. Thank you.

As far as the routes depicted on Slide 43 that's now showing, I think we've discussed this already, but just to clarify for the Committee. The perpendicular crossings apply to every -- every route; correct?

A. (Mr. Bryner) Correct.

Q. Both east-west and north-south -- let me clarify.

The east-west routes cross Oracle, which is a Gateway Corridor; correct?

A. (Mr. Bryner) Correct.

Q. And then the north-south routes cross at least Broadway which is also a Gateway Corridor?

A. (Mr. Bryner) That's correct.

Q. And that's the process we were just discussing?

A. (Mr. Bryner) Yes. As I understand it, yes.

Q. Thank you. And you're familiar with the special exception process that's described in the Tucson City Code or the UDC. Is that a process that TEP could comply with in terms of going through the process?

A. (Mr. Bryner) Yes. It seems very similar to the process we go through for a substation when we need to get a special exception. And so, yes, something that we have no problem going through.

Q. And you've done that as you just mentioned, you've done that multiple times before for the substations?

A. (Mr. Bryner) Yes. Many of our substations sites have required that.

Q. Okay. Anything about the Vine special exception process do you feel like you would encounter any difficulties other than normally, what you normally do?

A. (Mr. Bryner) Well, I know Mr. Dempsey mentioned in his opening remarks that it is located within the University Area Plan, and that was something that was mentioned in the -- I don't know what we call it, the denial of the special exception the first time we applied for it. That was mentioned in the context of not knowing where the transmission line route goes.

And so I think that would be something that could potentially be at issue.

Q. Beyond what's at issue, just the process itself, it doesn't pose any particular extra difficulty other than any other substation; correct?

A. (Mr. Bryner) No, that's correct.

Q. The special exception going -- again, that's a separate special exception process, I'll direct you now, again, to the Gateway Corridor Zone special exception process.

The process for the routes 6 and D which run along the Gateway Corridor or the Campbell Gateway Corridor as well as 1 and 2, those all run parallel with the Gateway Corridor Zone; correct?

A. (Mr. Bryner) Correct.

Q. The special exception process for the Gateway Corridor Zone, does that contemplate a process by which you could go through for those routes as well?

A. (Mr. Bryner) So it does have a process for parallel. So, yes.

Q. And is there anything special about that process versus for perpendicular?

A. (Mr. Bryner) As I understand it, it's the same process.

Q. Okay. And is that something that TEP could comply with in terms of going through the process?

A. (Mr. Bryner) Yes, we could.

Q. And is it particularly expensive to go through the process as compared to any other special exception process?

A. (Mr. Bryner) Again, we haven't gone through it for the gateway --

Q. Sure.

A. (Mr. Bryner) -- but I assume it would be fairly similar to that effort.

Q. All right. Thank you. So, again, we're talking about for the routes that are in the Gateway Corridor Zone, there is a special exception process for -- that are in the Gateway Corridor Zone and parallel to it for 1, 2, D -- I'm sorry, I'm getting the greens mixed up. I apologize.

The 1, 2, and 6 would all involve the same special exception process?

A. (Mr. Bryner) You might want to add D in there.

Q. Let's go with D, too.

A. (Mr. Bryner) Okay. Yes.

Q. Thank you. And to just for the Committee's reminder, the preferred route is B-4?

A. (Mr. Bryner) Correct.

Q. That would also involve the special exception process for the perpendicular crossings?

A. (Mr. Bryner) Yes.

Q. And those would be Oracle and Broadway. Am I missing any?

A. (Mr. Bryner) Well, Kino Parkway.

Q. Down at the bottom. Thank you.

Anything about any of that that would pose a particularly unusual difficulty to go through those processes?

A. (Mr. Bryner) No.

MR. LUSK: Okay. Thank you. I don't have anything further. Thank you.

CHMN STAFFORD: Thank you. Up next, Underground Arizona, Mr. Dempsey.

CROSS-EXAMINATION

BY MR. DEMPSEY:

Q. I apologize if I'm a little slower. The afternoons are not my best time of day compared to morning.

CHMN STAFFORD: It's been a long day.

MS. HILL: You mean, even on the days when you don't have to sit through 12 different routes?

MR. DEMPSEY: So I apologize. I'm going to be jumping around, too, because there's a lot of different topics here.

BY MR. DEMPSEY:

Q. So I guess I'll start with you, Clark.

You talk about all poles as though they are the same. Do you have a count of poles by height?

A. (Mr. Bryner) We have details on our poles. We don't necessarily have them by height, but -- well, we don't have a count by height but we could create a count by height.

Q. Could you -- I guess I can ask you. So you guys

talk about a reduction in poles. Does that include new service poles that would be required?

MS. HILL: I'm sorry. Mr. Chairman, could you just ask Mr. Dempsey to be specific about whether he's referring to one specific route, all the routes in general so that Mr. Bryner can make sure that he's answering the question that's asked.

CHMN STAFFORD: Yeah, Mr. Dempsey, I took it to mean that you're talking about all routes.

MR. DEMPSEY: Yeah. Just generally.

BY MR. DEMPSEY:

Q. Because you said it I think basically on every route?

A. (Mr. Bryner) We did not contemplate new service poles in our net reduction.

Q. Okay. So how many of the existing poles in these areas are as tall as the poles you're proposing to replace them with?

A. (Mr. Bryner) I don't have that information right now.

Q. Is it fair to say that not everyone will agree that replacing a short or smaller pole with a larger pole or taller pole may be considered a visual -- may be considered a visual downgrade?

A. (Mr. Bryner) Can you say that one more time for

me?

Q. Sorry. Is it fair to say that not everyone will agree that replacing a short or smaller pole with a larger or taller pole is considered a visual upgrade?

I think I screwed up. Did it still not make sense?

A. (Mr. Bryner) I'm trying to follow.

A. (Mr. Robinson) A visual improvement.

A. (Mr. Bryner) A visual improvement?

Q. A visual improvement, yes.

A. (Mr. Bryner) Let me rephrase in maybe a way to make sure I'm understanding. Are you saying if somebody takes a smaller pole, makes it a larger pole, they might not see that as a visual improvement?

Q. Right. Right.

A. (Mr. Bryner) Well, I mean you look at any of us and we might say differently.

Q. Right.

A. (Mr. Bryner) So I wouldn't say everybody. But I think, I honestly -- I think it's in the eye of the beholder. There are advantages to larger poles in many cases. You look underneath the infrastructure instead of at it.

Q. Right. Thank you. Has the City advised TEP that reducing pole counts while increasing pole heights

would satisfy any undergrounding requirements of any ordinance or specific plan?

A. (Mr. Bryner) We have not had those discussions with the City. Those are our assumptions.

Q. Are there transmission lines through any of these areas?

A. (Mr. Bryner) You'll have to be more specific on which areas you're talking about.

Q. The study area, is there a transmission line in the study area?

A. (Mr. Bryner) Let me just, again, I'm not trying to be difficult, I just want to clarify. When we are talking about transmission, are we talking about transmission in the definition of the line siting statute?

Q. Arizona, yes.

A. (Mr. Bryner) Okay.

Q. 115kV and plus.

A. (Mr. Bryner) Okay. So we have the Irvington to Kino 138kV transmission line. The very southern boundary, and then there are transmission lines up around the DeMoss Petrie Substation, and then there are some other transmission lines that run east-west in the northern portion of the study area.

Q. But generally speaking around the University of

Arizona there are no transmission lines?

A. (Mr. Bryner) No transmission lines; correct.

Q. Thank you. So changing it up here a little. So you kept saying, "Communication wires that will be undergrounded or relocated." You say "undergrounded or relocated."

You seem to be very optimistic that communication wires will be undergrounded instead of using new poles or something like that. Do you have any way to guarantee that it will be undergrounded or visually improved?

A. (Mr. Bryner) So I have less experience with that. If you're okay, could Mr. Robinson answer that?

Q. Absolutely. Sorry. Yeah.

A. (Mr. Robinson) Sure. So the joint-use attachers, we don't have right to tell them exactly how they're going to mitigate the use of that pole. So it would be inappropriate for me to answer that question.

Q. So you don't have control over what they do, though, is what you're saying? Yes?

A. (Mr. Robinson) That's correct.

Q. So is it fair to say that your simulation is optimistic, your visual simulation?

A. (Mr. Bryner) So what we do have control over is that they have to leave our poles.

Q. Right.

A. (Mr. Bryner) And so that is what we've illustrated in our simulation.

Q. Okay. Okay. So switching to distribution. So if eight years from now you or your successors decide not to do the things to the distribution system that you claim you will do here, what can anybody do about it?

A. (Mr. Bryner) That might be more of a legal question. I'm not sure.

Q. Okay. Is it fair to say that the only --

CHMN STAFFORD: One second. Ms. Hill, would you like to take a stab at that?

MS. HILL: Certainly. So there are a couple of things. Number one is, of course, that's part of the CEC process, and what we were discussing are things that we would do as part of the mitigation and as part of the building of this line.

And so the very first thing that could happen of course, the obvious thing is this Committee could have a condition about undergrounding the 46kV.

And that would be the most immediate solution with a Committee that has jurisdiction over it, and then there are enforcement mechanisms of course under the CEC process.

So I mean, I would start there, as a

response for this Committee.

CHMN STAFFORD: And I assume that the City may have some authority in this realm as well, Mr. Lusk.

MR. LUSK: Mr. Chair, yes, we believe we do. Yes.

CHMN STAFFORD: Thank you. Please proceed, Mr. Dempsey.

MR. DEMPSEY: That was my next question, so thank you.

Sorry. Give me a second here. Go ahead.

MR. ROBINSON: Mr. Dempsey, can I do just some minor correction? I think Ms. Hill referred to the undergrounding of the 46 system. That is actually the undergrounding of the 14kV system. We don't anticipate undergrounding any 46 as part of this project.

We will abandon unused 46 and as the project continues to convert from 4kV to 14, 8, 138 the overhead 46 will be abandoned and removed.

Can I also clarify one additional section?

And that is one of the purpose and needs of the project is that the 46 and 4kV system is overloaded at this time, and without the conversion that overload stays in place in the future. So the 4kV conversion needs to occur because it's overloaded.

MS. HILL: Thank you for the correction.

Sorry, it's a late in the day, misstatement on my part on the distribution voltage versus the 46kV, so thank you very much.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: Just a quick question. The removal of the 46kV system and the remediation of your eight other -- I think there's eight -- and so all of the stuff that you're removing as part of this project, is that given to us for information only? Or is that part of the consideration of granting the CEC?

CHMN STAFFORD: I think that could be either one. My understanding is that the 46kV system is going to be replaced by the 138kV system. And then they have a 4kV -- well, 4 point something kV system, which is like the lower distribution, and it's going to be upgraded to a 14 point something kV system.

MEMBER RICHINS: Right.

CHMN STAFFORD: And I think the second part, that's them handling their distribution network; whereas, the replacing of the -- eliminating the 46kV is part of this project specifically, for this 138, the addition of the 138kV.

MEMBER RICHINS: Yeah, but I think I'm just asking a question of jurisdiction on the removal of the

existing stuff. I just, I'm not sure if that's part of what we put in a CEC, if that is something that we -- or it's just like thanks for letting us know that, but here's the route for 138.

CHMN STAFFORD: I think it's entirely possible it could be a condition of the CEC, if it's a reasonable condition, because that's what the statute allows us to do. It doesn't limit us. I mean, they don't get before us outside the context of a 110kV line or higher. But how -- but the conditions the Committee chooses to impose to mitigate the impacts of that new line I think are pretty broad.

MEMBER RICHINS: And so then it becomes more of a question of jurisdiction. Is it the -- this Committee or is it the City of Tucson under their franchise agreement?

CHMN STAFFORD: Well, I think both overlap what because we don't -- the Committee can pose a condition on granting the CEC whereas the City enforces its franchise with the utility.

MEMBER RICHINS: Okay. Thanks.

CHMN STAFFORD: Please correct me if I'm misstating anything, Ms. Hill or Mr. Ancharski.

MS. HILL: No, Chairman Stafford. I agree with you.

CHMN STAFFORD: Okay. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: A question regarding this topic. Do the old 4kV -- am I close enough to this thing?

The older obsolete 4kV system and 46kV system that you're going to be replacing, do they have value?

MR. BRYNER: Do they have value as in terms of on our books?

MEMBER GOLD: Do they have value in terms of you take them down and you sell the metal or you reuse the wood?

CHMN STAFFORD: Oh, like salvage value.

MEMBER GOLD: Salvage value.

MR. BRYNER: Certainly our substation equipment is primarily metal and that is a practice we do today is we take that scrap, what can be, sell it. I'm doubtful that a lot of our old wood poles would have much value. They basically need to be replaced for a reason.

MEMBER GOLD: My question is when you're replacing the 4 and the 48kV [sic] equipment are you going to get rid of the -- are you going to take down the eyesores?

MR. BRYNER: Oh, correct, yes. So part of the project, part of the beauty of this project really is it addresses so many issues that we have from we need the extra capacity, so the 138kV system, the Vine Substation are going to address that.

It also -- we need to address the aging 46kV system which we address by retiring those substations, retiring those older lines that otherwise would have need of replacement. A similar situation existing on the 4kV distribution system.

MEMBER GOLD: So if I understand this correctly, you have every intention of removing the old eyesores.

MR. BRYNER: Correct. We don't get the full value of the project without that.

MEMBER GOLD: Thank you.

MR. ROBINSON: Member Gold, can I also add, though, in removing the 4kV system, that 4kV system will be replaced with a 14kV system.

So it will be new but it will still be there. The 46kV system will be removed in its entirety.

MEMBER GOLD: And the 14kV system, is that one that's undergrounded or is that going to be on poles?

MR. ROBINSON: It will be undergrounded only along the transmission line path. Elsewhere it will

be aboveground.

MEMBER GOLD: So the ones that you are not replacing will just remain as they are and they are not obsolete.

MR. ROBINSON: They'll be replaced with 14kV standard poles which will be updated to our current standard.

MEMBER GOLD: Thank you.

CHMN STAFFORD: Thank you, Member Gold.

Mr. Dempsey.

MR. DEMPSEY: I actually have a question building off of Member Gold's question.

By MR. DEMPSEY:

Q. So you're abandoning removing these poles, the distribution poles. Can the communication companies say, "Hey, no, just cut the tops off, we're going to keep using them"?

A. (Mr. Robinson) They cannot. We own those poles, as Clark said, and we no longer have to maintain that joint-use agreement once we've taken our facilities off.

Q. So they would have to, if they wanted to continue to use poles and not, you know, trench or whatever underground, they would have to install their own new poles?

A. (Mr. Robinson) That's correct.
Q. Okay. Thank you.
CHMN STAFFORD: Quick follow-up question. But they do -- but those telecom companies have their own franchise with the City as well, don't they?
MR. ROBINSON: They do, but I'm not knowledgeable as to what that looks like.
CHMN STAFFORD: Right. Maybe we can ask Mr. Lusk. They do have -- the details of the franchise agreement I don't think are important for this, it's just the issue that their behavior is governed in a similar manner to yours is by a franchise.
MR. LUSK: So generally yes, Chair. The -- they don't have franchise agreements with the City, they have lines agreement which are a little bit different.
But they are supposed to have additional authority, under our franchise agreement with TEP, they're supposed to have authority from the City to be in the City's right-of-way even if they're engaged in a joint-use agreement with TEP. I can't say for sure that is always the case, but this is what's supposed to happen, yes.
CHMN STAFFORD: So typically they have the lines and not a franchise, then?
MR. LUSK: Correct.

CHMN STAFFORD: Okay. Thank you for the correction.

MR. LUSK: Absolutely.

BY MR. DEMPSEY:

Q. So I'm changing gears here again, building on previous questions.

Can we put up the map just of all the routes? I guess, or we can refer to the ones in front of us.

So is it -- Clark, routes A and Route B are what I'm going to be comparing to each other.

So is it fair to say that the length difference from Vine to Park on Route B is about the same as the length difference from Vine to Grant on Route A?

A. (Mr. Bryner) All right. Sorry, Dan, it's getting late in the day. One more time.

Q. I'm surprised I got it out. So is it fair to say that the length difference from Vine to Park on Route B is about the same as the length difference from Vine to Grant on Route A?

A. (Mr. Bryner) Vine -- oh, from the Vine Substation?

Q. Yeah, yeah, yeah.

A. (Mr. Bryner) Okay. Yes, I think those are roughly comparable.

Q. Okay. So why does, since they're basically the

same outside of that little section, why does Route B cost two million more dollars?

A. (Mr. Bryner) That's a fairly easy question for me to answer. Vine Avenue, if you recall going through that, it doesn't have any overhead utilities on it today. Park Avenue has the 46kV along it. It's also got distribution underbuild and the communications. And so that extra $2 million is for the relocation of the distribution underground and then we'll retire the 46kV.

Q. Okay. And so I believe that you said you're doing that just because of stakeholder preferences; is that right?

A. (Mr. Bryner) Sorry. We're putting the distribution underground?

Q. Yeah, you're -- well, you're not -- you're choosing Route B over Route A because of stakeholder preferences; is that right?

A. (Mr. Bryner) So that's one of the reasons. There are other reasons. You look at the criteria that we use to evaluate routes. One of those was trying to maximize the use of existing infrastructure because folks are used to seeing that there. And so that -- that Route B.

Q. They're used to seeing it on Adams Street?

A. (Mr. Bryner) They're used to seeing it in the

alleyway between Adams and Lee, and so it's a more similar use. It's one side of the property versus the other.

A. (Mr. Robinson) Clark, in addition there's facilities along Park also; right?

A. (Mr. Bryner) Yes, correct.

Q. So I'm not sure how easily you can do this, but can we go to Slide 68? I think it's actually Slide 69 but it's labeled Slide 68.

A. (Mr. Bryner) I've got it on my book.

Q. Okay. So something you said repeatedly was, "Our poles will not be inconsistent with historic or neighborhood preservation zones."

Has the City told you that, or is it an assumption that you're making?

A. (Mr. Bryner) That's an assumption we're making of our reading of those zones.

Q. And this is related but slightly different.

Is the historic factor and again, you may -- you can say you don't know the answer to this, that's fine. Is the historic factor in the line siting statutes about whether a district would lose its historic status or not?

A. (Mr. Bryner) I don't know all what's all intended to be in that.

Q. So I want to switch to density and blowout, as

you call it.

So Clark, I believe you and I have discussed this in the past, it may have been in one of your public presentations. Would you say this is the densest area in your service area population-wise?

A. (Mr. Bryner) I don't know that I -- I don't know that I have the information to say that one way or the other. I would say it's a dense area.

Q. Okay. Would you say -- again, you might not know the answer to this -- would you say that it is the one of the or if -- or the most rapidly densifying area in your service area?

A. (Mr. Bryner) I think the only thing I could say is it's a dense area and yes, it's getting more dense.

Q. Okay. So in the Route C simulation, Larry, you said, "They have to avoid the east Speedway area because of tall buildings on both sides of the street."

So I guess my question for either of you is how does a transmission line affect high-density infill development?

A. (Mr. Robinson) So I believe what you're quoting me on is the section along Speedway that didn't have a route proposed on it and --

Q. Right. Right.

A. (Mr. Robinson) -- Member Richins had asked why

there wasn't a route proposed on that area.

Again, according to National Electric Safety Code requirements, we have to maintain certain separations between structures, buildings, signs, lights, traffic signals and things like that; right?

So if the area is already occupied by some of those facilities that we can't maintain separation from, we do have options; right? We could buy the building and tear down the building or do something like that.

But we try to avoid that in a route selection for a line when we're just presiting. We wouldn't have to commit that we would have to buy a structure and do a demolition on it just to route a line.

Q. Okay. Thank you. And very appreciative. That's an awesome answer.

If you have to put a pole on or above private property -- and you kind of already answered this question -- but I'd appreciate if you answer it again. What becomes the setback requirements from your easement for any vertical development?

A. (Mr. Robinson) So those -- so those setback requirements are defined by the National Electric Safety Code.

So our easements, our property easements would restrict development in that easement that would be in

conflict with the National Electric Safety Code. So we'd need to get a large enough private easement that would technically allow the property owner to develop vertically at the edge of that easement and still not violate the National Electric Safety Code.

Does that answer your question?

Q. Sure, I guess. In some ways, does -- is there just a general 10 feet, 15, 20 feet? What's the common --

A. (Mr. Robinson) That is dependent on the voltage that is being constructed. It's a function or variable of the voltage. The lower the voltage, the lower the National Electric Safety Code clearance required.

Q. And what is it for 138?

A. (Mr. Robinson) I'd have to review. I don't know that off the top of my head.

Q. Do you have a ballpark? Respecting that you don't -- we're not holding you to this.

A. (Mr. Robinson) Ballpark, it's about 10 feet.

CHMN STAFFORD: I guess you'd be able to check on that and let us know tomorrow, couldn't you, what the setback is for 138?

MR. ROBINSON: I could. I could. Yes, I'll take that as a takeaway.

CHMN STAFFORD: Thank you.

BY MR. DEMPSEY:

Q. Okay. Thank you. I just have a couple more generic questions here.

Actually, you know what, I'll stop there. Thank you.

A. (Mr. Robinson) I have an answer to that.

CHMN STAFFORD: That was fast.

MR. ROBINSON: We have our engineering consultant who happens to do a lot of engineering.

So 138 voltage, no wind, without any displacement the NESC code clearance is 9.9 feet. Right? 9.6.

With wind blown out and the blown out condition, the NESC code clearance is 6.6. Right. Mr. Dempsey, we do add a few feet addition to the NESC safety code to account for changes in field conditions that might occur and still be able to maintain our code clearance requirements.

BY MR. DEMPSEY:

Q. And is that -- so, thank you.

Is that from the easement? Is that from the pole? Is it from wire? Where -- what's this -- what are you measuring from?

A. (Mr. Robinson) That clearance requirement is from the conductor itself. So it would be in the first

condition 9.9 feet from where the conductor is plus our safety buffer. 6.6 feet in a blown-out condition, plus our safety buffer. It's usually we add a couple feet safety buffer.

Q. So when you say blown-out condition, I believe Clark, was it yesterday, I can't remember now, you said that blowouts are 10 feet as well, so is it 10 plus six, 16 feet is what you're saying?

A. (Mr. Bryner) I was giving a hypothetical example. So the blowout is the sag in the conductor.

Q. Right.

A. (Mr. Robinson) So in Ms. De Blasi's counter she asked what that distance was and what we were looking for was 15 to 16 feet on the private easement. That's to account for that blowout and the NESC code requirements.

Q. So 15 to 16 is a fair assumption?

A. (Mr. Robinson) That's correct. From property line, and also from the conductor blown out.

MR. DEMPSEY: All right. Thank you. Yeah, that's it for me.

CHMN STAFFORD: That completes your cross?

MR. DEMPSEY: Yes.

CHMN STAFFORD: All right. Ms. Hill, would you like to do redirect now or do you want to talk about the tour?

MS. HILL: I have about what I hope is three minutes of redirect, and then if we could talk about the tour after that.

CHMN STAFFORD: Excellent. That sounds like a perfect plan.

MS. HILL: Okay. Thank you, Mr. Chair.

REDIRECT EXAMINATION

BY MS. HILL:

Q. So Mr. Bryner, this is directed at you.

So I just want to have you recall the discussion that you had with Mr. Lusk regarding the special exception process for paralleling the Gateway Corridor Zone. Do you recall that conversation?

A. (Mr. Bryner) Yes.

Q. Okay. And you recall your prior testimony about that you didn't believe that the Campbell corridor on Route 1 qualified for one of the special exceptions. Do you recall that testimony of yours?

A. (Mr. Bryner) Yes, I do.

Q. Okay. So given your conversation with Mr. Lusk right now in cross, I would like to have you briefly explain to the Committee why TEP does not believe that the parallel Campbell corridor on Routes 1, and is that 3, I'm sorry, that parallels the gateway on Routes 1

and 3 qualify for the special exception process -- for a special exception under the process. Pardon me.

A. (Mr. Bryner) Sure. In this same, I guess my response would also hold true for routes D and Route 6 that we also believe would not qualify for a special exception under that process.

So there's various criteria that are laid out in the special exception in the UDC. In some circumstances you need to meet one of those criteria in order to qualify for a special exception. In other cases you need to meet more than one of those criteria.

In the case of a parallel or being located parallel to the Gateway Corridor, in most cases you have to meet more than one of those criteria.

The -- and I'm going to go off of memory so I hope I get this right -- the exception to that would be when you're crossing over railroads or bridge infrastructure such as is the case where Kino Parkway crosses over the Aviation Highway and the railroad. In those cases there were exceptions where, hey, because of that you can be parallel and that meets the requirement for the special exception.

North of Broadway, between Broadway and Grant Road that would apply to routes 1, 6, and D, it becomes a little more stringent where we'd have to meet multiple of

those criteria. So one of those mentioned that I felt like help us on Broadway Boulevard to get this was existing infrastructure.

If there's existing infrastructure and I believe that it's if you don't increase the height by -- the height and width by more than 10 percent, then you meet one of the criteria.

So on Broadway Boulevard we have some fairly large distribution lines, but fairly large distribution lines we feel like we could -- we could put our transmission infrastructure there and keep it within those thresholds.

The other thing going for us on Broadway Boulevard that does not hold true on Campbell Avenue are the existing land uses. So that's another one of the criteria is if it has -- I don't think it uses compatible, but similar land uses, more commercial/industrial land uses, then that's another one of the criteria where you can qualify for a special exception. It does not include residential land uses.

So as we've talked about for a large portion of this stretch along Campbell Avenue, we do have residential land uses on at least one side of the road and in some cases on both sides of the road. And so, again, through a plain reading by us of those special

exceptions, we didn't see the -- we didn't meet the criterion threshold to -- even to where we'd even feel comfortable in applying for a special exception because we feel like we don't meet these.

Q. Thank you.

MS. HILL: I have no further questions.

CHMN STAFFORD: All right. Ms. Hill, let's talk about TEP-13.

MR. LUSK: Mr. Chair, I apologize. Ms. Hill, please correct me if I am overstepping, but if I could have a clarifying question just as to what Mr. Bryner just testified to.

CHMN STAFFORD: Certainly. Please proceed.

MR. LUSK: Thank you.

RECROSS-EXAMINATION

BY MR. LUSK:

Q. Mr. Bryner, when you suggest that the special exception would not be available on Campbell, I notice there are several routes on Campbell and not all of them go all the way up and down. Is that for the full route of Campbell that you don't believe you qualify, or is that just for some -- some area of that?

A. (Mr. Bryner) Basically I'll say the majority of the stretch between Broadway Boulevard and Grant Road

applicable to routes 1 and Route 6 and Route D. So we do have Route 1 is located on Campbell Avenue outside of the gateway south of there, so that it doesn't apply, but it would just be between Broadway and Grant.

Q. Right. I'm just trying to get a sense of -- so you -- what you just testified to would be applicable to routes 6 and D, those small portions up there; correct?

A. (Mr. Bryner) Correct.

Q. And then Route 2 actually is on parallel both on Broadway and on Campbell?

A. (Mr. Bryner) So Route 2 has a perpendicular crossing of Campbell. It does not parallel Campbell.

Q. I'm sorry. Thank you. But you believe that you could get involved the special exception process on 2?

A. (Mr. Bryner) For the perpendicular crossing of Campbell, yes, we believe so.

Q. Okay. So then the 1, 6 and D you believe that you would not be able to get a special exception process or would not be able to get a special exception for any of those routes? Any portion of those routes?

A. (Mr. Bryner) That would be, yes, our belief.

MR. LUSK: Okay. Thank you.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I know we want to talk

about -- we're very excited about the field trip tomorrow, so I know we want to talk about that. We're already thinking about barbecue for tomorrow.

But prior to cross, Ms. Hill suggested that she had five minutes of summary to compare the different alternatives. I'm just wondering if my colleagues are interested in that five minutes of comparison or -- because I am.

CHMN STAFFORD: I assume you're speaking about slides 200 and 201?

MS. HILL: Yes. Yes, Mr. Chair.

MEMBER LITTLE: I vote in favor.

CHMN STAFFORD: Please, give us your five minutes summary.

MEMBER HILL: Thank you for indulging.

MS. HILL: Well, I know better than to summarize them myself, and so I'm going to ask Mr. Bryner to engage in that brief summary. And then we can always review this again, too, on Friday or next week if the Committee would like or, you know, if you would like to in the future, because I know this is a lot.

CHMN STAFFORD: Frankly, I think we'll probably go over those couple slides several times before this whole process is over. I think at some point once the case -- the applicant's presented its case, the

Intervenor has presented their case, the Committee's going to have to have the discussion about to narrow the segments that are up for consideration, like eliminate some right out of the gate, and I think that whole conversation's going to start with that summary.

MS. HILL: Understood. Thank you. And if there are specific talking points that the Committee would like as we go along for us to prepare to review later, we're happy to do that.

CHMN STAFFORD: I'm going to have a list of stuff here before it comes time for the Committee to deliberate.

MS. HILL: All right. We'll take notes.

MR. BRYNER: Grace, could you bring up -- perfect. Thank you. And I apologize in advance if this brings up any terrible nightmares for any of you of the hours we've spent here recently.

Okay. So looking at Slide 200 over on the left screen, these are our routes between DeMoss Petrie and Vine, so those four alternative routes.

So the least expensive route amongst those is Route A, which just to remind you is the route that goes down Grant and Vine. The most expensive route is Route C, which is the one that goes down Stone and Speedway. While the preferred route is our second most

expensive route.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: Can you talk a little bit about these estimated costs and the range of variability in them, because you don't -- you don't have full design and so what's the range of error or variability? Can you talk a little bit about that?

MR. BRYNER: So the range of error, I'm not sure that I could -- I'll -- if it's okay I'll share our methodology for developing these costs.

MEMBER HILL: Okay.

MR. BRYNER: So we looked at -- let me just go through them. I'm not going to try to quantify this. So we looked at right-of-way expenses, and so that was based on an assumption of trying to be located within road right-of-way to the extent we could and where we felt like we would be located in -- we would need some private easement.

We calculated that based off of a reasonable assumption which Mr. Robinson shared with you, and so -- and that was based off calculating the square footage of that area and the fair market value for that. And so in sum total for each of these routes, we came up with that.

And then we had estimates for engineering of the transmission line, the cost of purchasing the materials for the transmission line, and the costs of constructing the transmission line, and Mr. Robinson may know more details on that if he wants to share those.

MR. ROBINSON: Those were -- those costs are all based on some of the more recent projects that we've completed, including the Irvington to East Loop 138 line that was just put in service four months ago.

MR. BRYNER: And then the third thing that went into those cost estimates was an estimate for undergrounding any of that existing over -- that existing distribution infrastructure, and for that similarly we looked at some recent projects to underground.

There are different levels of distribution. You have feeder class, which has a higher rating. You have primary, secondary. And so based on whatever was going on there, we looked at recent projects and the associated costs, multiplied that out, so --

MEMBER HILL: That's the methodology.

MR. BRYNER: That was the methodology. So I think they're pretty good. But certainly there's variables that could raise that up or down.

MEMBER HILL: Okay. Thank you.

MR. BRYNER: Okay. Let's see. We just

talked about -- what did I talk about, the cost?

MR. ROBINSON: The cost.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I have a question for Mr. Bryner. It's a beautiful chart.

MR. BRYNER: Thank you.

MEMBER GOLD: Are we talking percentages? Numbers? It says residential, .5, 1, .7, .2. 2 what?

MR. BRYNER: So in the bottom of the chart it has a little reference to an asterisk there.

MEMBER GOLD: Yeah, linear length --

MR. BRYNER: Linear length.

MEMBER GOLD: Linear length represented in miles.

MR. BRYNER: And so that's -- that's what we're talking about is 3.2 miles, .5 miles, .5 miles.

MEMBER GOLD: So what does residential .5 miles mean?

MR. BRYNER: So the route would cross through residential land use areas for .5 miles.

CHMN STAFFORD: Of the 2.9 total route length?

MR. BRYNER: Correct. Or I think that was 3.2 route length. So it's -- we could calculate a

percentage but it's not the reason.

CHMN STAFFORD: Route 1, that's my problem.

MR. BRYNER: Oh, yeah, you're on Slide 201. And so the only one that we represented with a percentage there was the percentage of overhead utilities where we're in that --

MEMBER GOLD: Okay.

MR. BRYNER: -- because the other ones, while you could go through one mile of residential that could equate to potential 25 percent of the route for a four-mile-long route, if you had a route that was eight miles long and it went through two miles, it would also look like 25 percent, but you're actually impacting twice as much residential. So showing it by percentage, that seemed --

MEMBER GOLD: So it's in miles.

MR. BRYNER: Poor comparison. It's in miles.

MEMBER GOLD: So if your route length is 3.2 miles, .5 of that is residential.

MR. BRYNER: That is correct.

MEMBER GOLD: Underneath it one mile is residential. And in historic districts .5 or .3 miles. And overhead distribution to be undergrounded, 1.7 miles.

MR. BRYNER: You're reading it correctly.

MEMBER GOLD: Okay. Thank you.

CHMN STAFFORD: Quick question. So the overhead distribution to be undergrounded, that is the 14 -- that's the 4kV system being replaced with a 14?

MR. BRYNER: No. So we don't quantify how much of our 4kV system will be converted over to the 14kV system, so that will be -- it is part of the broad Midtown Reliability Project, but that is not included in these costs. That will be a substantial effort that, again, is going to take place over the next -- well, once we get this in service, ten years from that in order to get all that work done.

CHMN STAFFORD: Then what's the overhead distribution to be undergrounded?

MR. BRYNER: That's essentially taking the existing or whatever is in place right now, and it's -- I'll just say in the way of where we'd put the new transmission infrastructure, that we would put underground and either get it out of the way, making space for the new transmission line or we don't like to corridor in the streets, so that we don't have line on either side of the road.

CHMN STAFFORD: So the existing distribution, that's the .4k, the 4k system that you're -- it's on a pole now that you can put underground

when you put the 138kV poles in.

MR. BRYNER: It could be 4kV, it could be 14kV, it depends on the area. But yes, it's the distribution -- the lower voltage distribution system what the voltage is.

CHMN STAFFORD: Okay. And that's kind of a hodgepodge throughout the system, there's different ones here, different ones there. Hodgepodge is probably a pejorative term. I'm sure there's a rhyme to your reason, but I'm just -- from our perspective we don't know what that is, so when some parts of the route will have this type of distribution, other parts a different type.

MR. BRYNER: The majority of this would be 4kV, but as we're doing that we would make sure we're putting in whatever we need so that we can make a simple voltage conversion at the time that it's ready to go to 14kV so that, you know, either we'll use a dual-voltage transformer or something so that we -- it's an easy switch.

CHMN STAFFORD: Okay. All right. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: In the interest of time and

the fact that you established a few minutes ago that we'll be memorizing this, could we start off maybe tomorrow and have Clark or someone go through this chart and kind of walk us through the way a doctoral dissertation candidate would walk his committee through it? I, for one, appreciate what you just said, but it's kind of bits and pieces here and there. And I'd hate to -- I'd like to have it tonight, but I really don't want it now.

CHMN STAFFORD: I appreciate that, Member Kryder.

MR. BRYNER: I'm happy to do it whenever you want it.

MEMBER KRYDER: Thank you very much, Clark. You're a gentleman and a scholar.

CHMN STAFFORD: Ms. Hill, would you be interested in talking about TEP-13 now?

MS. HILL: I would, Mr. Chair.

CHMN STAFFORD: Thank you.

MS. HILL: And we will make a note that we can start off with this on Friday morning if the Committee wants.

CHMN STAFFORD: Yes, thank you. Hopefully we'll be refreshed Friday morning after the exciting tour we have planned for tomorrow.

MS. HILL: Okay. So a very, very brief description of what TEP-13 is. This is something that maybe some -- oh, sorry. A very brief description of what TEP-13 is. This is something that is not usual for -- customary for us.

So on the actual tour of the routes we realized that it would be very beneficial if the Committee heard some of the testimony regarding the routes as the bus is actually driving rather than trying to recreate everything at the next stop.

So for that reason we developed a script that will be read verbatim by Mr. Clark on one bus and Mr. Lindsey on another bus while the bus is driving. I'm sorry. We still have to stop in the heat, though, but I understand there'll be popsicles at least once.

And because the court reporter won't be available, of course, to capture the discussion while on the bus or while the bus is moving, that script has been made an exhibit, which is TEP-13.

We will be following that exhibit to the letter including where on the route the language will be read. And so therefore we ask you to please save any questions or comments about what you hear while you are on the bus for the stop when the court reporter can take down your questions and record the answers.

And then the requisite protocol for the tour that's required is also set forth in TEP-13.

So with that I'm going to ask Mr. Bryner as a foundational question. Poor guy, he's tired.

BY MS. HILL:

Q. So Mr. Bryner, was TEP [sic] prepared by you or under your direction and control?

A. (Mr. Bryner) Yes.

Q. And are the contents true and correct to the best of your knowledge?

A. (Mr. Bryner) Yes.

MS. HILL: Okay. Thank you. And I understand, Mr. Chair, you will admit at the end?

CHMN STAFFORD: Yes.

MS. HILL: Okay.

CHMN STAFFORD: So tomorrow we'll meet in the lobby at approximately nine o'clock. The buses will be out front. Correct?

MS. HILL: Mr. Bryner, the buses will be in the front; is that correct?

MR. BRYNER: That's what I was trying to confirm if they're going to come back here or to the front. We can have them go to the front if that's where we'd like to meet. I do know we have a few things that we'd like to I guess distribute to help with some of the

heat tomorrow, so whether it's here or there, I want to have a few minutes to do that.

CHMN STAFFORD: Okay. Because how we typically do this, we'll go on the record, establish that we're going on the tour. And then we'll have the exhibit, I recommend all the members to bring a copy of TEP-13 with them, and then that's the script -- I can't hear you.

MEMBER KRYDER: Are we going to be given one?

CHMN STAFFORD: I think --

MEMBER KRYDER: A copy of that script.

MEMBER LITTLE: We have one.

CHMN STAFFORD: We have one. Do you mean you don't have a paper copy? Is that what you'd like?

MEMBER KRYDER: I didn't get to read last night.

MR. ANCHARSKI: So Chairman, Member Kryder, we do have extra copies of that I'll bring to the morning -- everyone should have a copy virtually and also in paper form, but I will have copies. Yep.

CHMN STAFFORD: All right. So we don't have any ex parte communications or open meeting violations, so the point -- so we don't have, we don't deliberate on the merits of the case or talk about the

merits of the case on the bus off the record. We don't have conversations about the merits with the parties off the record outside the presence of the court reporter.

So that's the purpose of the script. So, because the way this is set up, the drive to the first stop, get out and say what's going on, and then drive to the second stop without saying what's happening would be kind of having to wait to ask the questions about it, what did I see five minutes ago, ten minutes ago, would be difficult for the members to handle.

So this way we have, there's the map that shows where we're going, what the stop is, and a script about narration of where it's going to be. So it's already in the record.

And then so you can't have any follow-up questions, they're just going to give the spiel that's here, and then I would advise you to bring the paper copy and take notes as you go if you have questions.

So that way when we get to the stop you can go back and see, ask your specific questions on the record to the witnesses that have been sworn, and in the presence of all the other parties that will be -- I assume will be taking the tour.

Mr. Lusk, Mr. Dempsey, and Ms. De Blasi are you planning on attending the tour, or not?

MS. DE BLASI: I am, Chairman.
MR. DEMPSEY: Yes, I am.
CHMN STAFFORD: Mr. Lusk?
MR. LUSK: Yes, Your Honor -- or Chairman.
CHMN STAFFORD: Are we going to have -- how many buses are there? Is there one, two buses?
MR. BRYNER: We have two buses.
CHMN STAFFORD: Okay. And you'll be able the fit everybody on there?
MR. BRYNER: So they'll each accommodate 27, so I think we were thinking we'd probably put the Committee on one, other parties on another.
CHMN STAFFORD: Okay. And that way -- and then I guess the members of the public are -- they can -- they're free to follow the tour. Are there any -- I guess the thing is I would ask the applicant to speak to the members of the public that are currently in the room and find if they're interested in the tour.
If they are, please provide them with a copy of TEP-13 so they have the itinerary and they know what's going on that they can't see. So, and then, while they're not parties they don't have the opportunity to ask questions or engage with the Committee at the stops, they're certainly free to observe and then potentially the Committee members could ask questions that they might

be interested in hearing the answers to.

So does anyone have any questions about how this tour is going to unfold? This is a kind of new thing with the script for it, but I think that's going to be very helpful for the Committee. Mr. Bryner.

MR. BRYNER: I don't have anything about the process for that, but I do have some clarification on where to meet.

CHMN STAFFORD: Okay. Thank you.

MR. BRYNER: Can I share that now?

CHMN STAFFORD: Yes, please.

MR. BRYNER: Okay. So we'll have the buses come to the back lot here because we will have breakfast in the morning for the Committee in this room. And I think this will be a better place for us to have those initial conversations as opposed to the lobby. And then it will be easy for us to just step out the back door here and get on the bus if that's okay.

CHMN STAFFORD: Okay. Then we'll meet -- we'll come back -- we'll meet -- we'll convene nine a.m.-ish in this room, go on the record, establish that's happening, and then head to the vehicles and begin the tour.

MR. BRYNER: Sounds good.

MS. HILL: If we could also just clarify,

if we are going to take a detour to see the potential mitigation measures on the routes for traffic, you know, pushing it out a little bit, and for the life of me the word has escaped my brain at this point.

Chicanes. Thank you, Mr. Lusk. And I still have not decided how I was going to spell that word. So if you do want to do that, we can -- we will have a brief amendment to the tour that -- but it's not going to make the docket in time tomorrow.

So any members of the public that are following tomorrow, we will have to give them an update to that before, and I think the best place for us to add it is at the very end after we do the last stop and just find the one closest on our way back to the hotel. And so if that's what the Committee wants, we can -- that's how we'll handle it.

CHMN STAFFORD: How interested are we in seeing a chicane? Members?

MR. BRYNER: Alternatively, Chairman Stafford, we could go take a bunch of photos and share those.

CHMN STAFFORD: I -- well, I think I've seen enough chicane to satisfy my need to see chicane. But I don't think that will be necessary to add an additional stop to this, but I appreciate your

willingness to accommodate the Committee, but frankly I don't think it's necessary to go through all that just to look at a chicane.

MR. LUSK: And if I may, Chairman, I did present Ms. Hill and Elias with a possible exhibit that would give you a good sense of what they look like here in the City of Tucson.

CHMN STAFFORD: That would be preferable I think to try to monkey with the tour that they've had to work so diligently to put together with the script and stops and all that stuff to help the Committee understand everything.

So I think, yeah, I think we can live without having an additional stop for the chicane. So that's one less problem for you to deal with.

MS. HILL: Thank you. We appreciate that.

MR. ANCHARSKI: Chairman, just -- oh, Chairman, Mr. Ancharski, real quick. Just the tour is on the project website, those will be available more readily for the public but I certainly can provide copies as needed as you mentioned.

CHMN STAFFORD: I would recommend that someone from the applicant speak with the members of the public in the room and find out what their -- if they're even interested in it. Since they're here and hearing us

talk about it, they're aware of its existence, and whether they choose to participate or not is up to them.

But if they -- if they can get a paper copy if that's what they want, that would be great. It would be helpful, some may not need it, they can just pull it up on their tablet or whatever.

MS. HILL: Given that we're here late, I'm going to share that two of the members of the public are my husband and my mother, and they've already driven these routes with me about 50 times. So I think they will decline.

CHMN STAFFORD: All right. Anything else before we recess for the evening and come back tomorrow at nine a.m. here?

MR. DEMPSEY: Can we wear shorts?

CHMN STAFFORD: You can wear whatever you like, it's extra business, it's casual, not business casual, it's just casual tomorrow because of the heat, so --

MEMBER MERCER: And no flip-flops; right?

CHMN STAFFORD: I'm not going to sweat flip-flops. I'm not going to wear flip-flops, but if someone else can pull it off, then I'm not going to shame them for it.

Anything else, Members?

(No response.)

CHMN STAFFORD: Hearing nothing, we're in recess.

(Proceedings recessed at 5:27 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

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Dated at Phoenix, Arizona, July 14, 2024.



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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-357

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 11, 2024

Filed: July 23, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME IV
(Pages 790 through 857)

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ACC - Docket Control - Received 7/23/2024 1:12 PM
ACC - Docket Control - Docketed 7/23/2024 2:17 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789
VOLUME IV	July 11, 2024	Pages 790 to 857

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719

INDEX TO THE TOUR

STOP	PAGE
1	801
2	813
3	828
4	833
5	845
6	847

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	--
TEP-2	Map of Proposed Project	21	--
TEP-3	Testimony of Clark Bryner	52	--
TEP-4	Testimony of Chris Lindsey	54	--
TEP-5	Testimony of Erik Bakken	57	--
TEP-6	Testimony Summary of Larry Robinson	386	--
TEP-8	Witness Presentation	49	--
TEP-9	TEP Ten-Year Plans	58	--
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	--
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	--
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	--
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	--
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	--
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	--
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	--
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	--

//

INDEX TO EXHIBITS (Continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10	Exhibits Regarding Notice Requirements	58	--
TEP-10A	Notice of Hearing	58	--
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	--
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	--
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	--
TEP-10E	Map of Notice of Hearing Sign Locations	58	--
TEP-10F	Photographs of Sign Placement	58	--
TEP-10G	Example of Sign Contents	58	--
TEP-10H	Notice of Service to Affected Jurisdictions	58	--
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	--
TEP-11	Receipt of Filing Fee	58	--
TEP-13	Tour Itinerary/Script/Protocol	254	--
TEP-21	Letter of Support from University of Arizona	368	--
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	--

//

INDEX TO EXHIBITS (Continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	--
BUMCT-1	Testimony Summary of Mark Barkenbush	37	--
BUMCT-2	Witness Presentation	37	--

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:04 a.m. on July 11, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
DAVID FRENCH, Arizona Department of Water Resources
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
MARGARET "TOBY" LITTLE, PE, General Public
DAVE RICHINS, General Public
JOHN GOLD, General Public

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(TIME NOTED: 9:04 a.m.)

(Beginning of route tour.)

CHMN STAFFORD: Let's go back on the record.

Today we'll be taking the tour. Everyone has their itinerary?

MEMBER GOLD: No.

MR. ANCHARSKI: Good morning, Chairman. Committee Members. I have them on the chair behind you. I can certainly pass them out as you get on the buses.

CHMN STAFFORD: Okay. Great. All right. We have the script that they'll follow, they'll point out as we drive, but otherwise we won't be able to ask many questions. Save your questions for the stops. We'll get the court reporter out. Likewise, Members, don't discuss the merits of it on the bus. You can chitchat about anything else, but don't -- we can't be talking about it till we get back on the record at the stops.

Do any of the parties have any comments they need to make before we get the tour started?

MS. GRABEL: Thank you, Mr. Chairman. We do want to do a safety briefing before we get on the bus. That's something that is pretty common in the utility world.

Also, Mr. Bryner will be making comments on

the bus, but those are only what's in the script that's already in the record. I just wanted to clarify.

CHMN STAFFORD: Exactly. Do you want to give a safety briefing now or do you want to do it when we get on the bus?

MS. GRABEL: Mr. Bryner, do you want to do it now?

MR. BRYNER: So Mr. Robinson is actually going to do that, and yes, we'd like to do it right now. Because we want to make sure everybody's ready, and we have a few things that go along with it.

MR. ROBINSON: Yeah, your safety is very important to us. And the temperature today is forecast to be 107 degrees. So heat safety and heat-related illnesses is what the safety share will be all about.

First off, I want to give you a few tips about how to prevent heat illnesses and safety. One is to start drinking water often and early. We'll have some bathroom stops along the way when necessary, and we would far rather make a stop, let a person use the restroom than to address a safety concern, a health concern.

So drink water about every 10 or 15 minutes. You certainly should be drinking 16 ounces of water every hour if not more, up to double that consumption.

Also supplement your water with electrolytes. We have these packages of electrolyte that can be opened and poured into a bottle of water provided. There's some on the table outside and there's also some that will be in each bus.

So about every second or third water -- bottled water please supplement with some electrolyte in that.

Also, rest in the shade and in the AC of the vehicles as we're going along. And report if you have or you're having any symptoms of heat stress or heat exhaustion, please report them early. Share with someone how you're feeling and I'll go through some of those symptoms here later on.

We've supplied opportunities for everyone to have a cooling towel. There's plenty of water in the vans and if you take some of that water, wet this towel, it's got a great evaporative cooling effect, you can put it over your head or on your shoulders or neck, and it will help you stay cool.

In addition, by the way, this is one dollar so feel free to keep it or feel free to return it, that's up to you, at your discretion.

We also have a water spray fan out on the table if you need or want, you know, I know many of us

are not used to working in the extreme heat conditions out there, and it's easy to fall subject. These are $10 apiece. Again, at your discretion, you can either return it to us or take it home. You're free to decide what to do with that.

We have sunscreen either in the bottle form or this pump application as you can see, if you look closely at my shirt, the pump takes a few times to prime and when it primes, it'll come out all at once. So go easy on the pump until it's ready to prime and please cover yourself with sunscreen. It will reduce the heat load on your body.

Let's talk a little bit about what some of the symptoms you can watch out for for heat stroke.

Heat exhaustion, the symptoms for heat exhaustion are faint or dizziness, right, excessive sweating, cool, pale, clammy skin, rapid or weak pulse, and irritability and confusion, excessive thirst, muscle cramping. The treatment for that is to get some cooling, get out of the sun, get some electrolytes.

Heat stroke is a throbbing headache, no sweating, red, hot, dry skin, rapid or strong pulse, loss of consciousness, nausea or vomiting and convulsions. If you have heat stroke symptoms, we need to call 911 and get you emergency medical treatment.

Also, if you feel like you're getting motion sick in the van, we have some saltine crackers which will generally help with that in each of the buses if you need.

So the treatment for both heat exhaustion and heat stroke is to get -- get out of the sun, get some cooling and evaporative effects on yourself, and if you don't feel any better get medical attention.

So if you'll share with us how you're doing, we'll gladly help you in any way if you're not feeling well.

MEMBER HILL: Thank you.

CHMN STAFFORD: Thank you. Anything further? Do any of the intervenors have any questions?

(No audible response.)

CHMN STAFFORD: All right. Well, with that let's pack it up and get on the bus.

Let's go off the record.

(TIME NOTED: 9:10 a.m.)

(TIME NOTED: 9:40 a.m.)

(Arrival at Stop No. 1)

CHMN STAFFORD: Let's go on the record.

Mr. Bryner. You going to describe some stuff for us or go straight to Committee member

questions.

MR. BRYNER: I'll mention a couple things. Okay. So we are at the DeMoss-Petrie Substation, or site. There's several things going on that we talked about, so I just want to orient you just real quick.

Right here in front of us, this is an 85-megawatt gas generating turbine peaker unit if you will.

Just to the south of that you'll see a BESS, OAK Electric's storage system, battery system, a 10-megawatt system. Just to the north of us you see the canopy. That is our new GIS substation for this, for the DeMoss-Petrie 138kV substation.

The canopy height on that is 38 feet. It's taller than the proposed canopy at Vine. That would be 25 feet. Also a couple other things. On the other side of the road here you'll see a vacant lot. That will be a 230kV GIS substation in the coming couple of years.

Where you see the large galvanized poles just to the north of us, those are 230kV lines. That's part of our Tortolita 230kV line that we've talked about.

And just so give you some idea of heights of some of these structures, those are 148 feet tall.

The substation you see beyond the vacant lot, that's a WAPA yard. So theirs is 115kV today. And

there's I think one line coming in from the west and one line leaving to the north out of that substation.

A couple of other pole heights that I want to point out for reference. Let me check my cheat sheet. Okay. So the pole that you see closest to us, this is a weathering steel pole. It is 85 feet tall. You'll see some poles further towards the freeway. Those are closer to 100 feet tall.

You'll also see -- if you see the wooden pole just to the north of us, that's a distribution pole, and that one is 40 feet tall.

The distribution poles you see to the other side of the road over here that are just on the north side of the vacant lot, you can see one close to the road and then across the south side of these buildings those are steel poles -- sorry, no, those are wood poles -- they're 45 feet tall.

And the last thing I want to point out for an orientation is the poles that you see north of us, the tall poles with the arms on either side, those are painted steel poles and those are 115 feet tall. And those are in their state of good painting.

MR. ROBINSON: Clark, can I add a minor correction here. So those poles, the distribution poles that he's talking about are 45 feet in length and they're

embedded in the ground, right? So they're not quite as tall. That 45 in length includes the embedment depth that they're buried.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: So we have the weathered steel finish here, the galvanized finish, and over there is the painted. There's the three proposals that we have. That's not the Desert Sage, though, it's probably painted something else. And how much maintenance do you have to do in keeping those painted?

MR. BRYNER: So, yes, that's correct, Member Richins. Those are the three different pole color finishes that we talked about. Weathering, painted, galvanized. And the painted steel, I'm not positive on the paint color on that. I would say it probably was a Mohave Sage. It fades into different colors as it progresses. Its sort of end color is very yellow and I'll point that out right outside of the Vine Substation. As far as maintenance goes, about every 20 to 30 years it requires painting.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: Member Gold. The dark color that you painted, why didn't you paint it like a light

teal blue to match the sky? It would be less obtrusive.

MEMBER KRYDER: I didn't hear you.

MEMBER GOLD: Why didn't you paint the pole sky blue, a light blue or white to match the sky.

MR. BRYNER: Terrible question. I'm just kidding.

So the dark pole you're pointing out I believe that's a weathering steel pole. We didn't paint it that brown color. So that's similar to the pole we see closest to us right here.

The poles that are painted are the ones beyond that that are more of a grayish color, and the Mohave Sage, the intention of the Mohave Sage is for it to blend in better with the sky or a desert background, different things like that.

MEMBER GOLD: That makes much more sense. Thank you.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: What is the diameter of this pole right here?

MR. ROBINSON: So that pole, it's about 48 inches in diameter at the base and it's sitting on a 60-inch anchor bolt plate.

CHMN STAFFORD: Now, is that -- what are the heights of the towers of the proposed line?

MR. ROBINSON: So within our application the standard height will be 75 to 85 feet above the ground, which is reflected in this pole height. It's an 85-foot-tall structure.

CHMN STAFFORD: So that -- I'm just going to yell because this mic -- so that's the typical type of structure we'll see for the project; correct? That size?

MR. ROBINSON: Except for this is a dead end, which means it's a little bigger in diameter than our typical pole. But the height is reflective of the typical height. Between 10 feet lower and this height is going to be our average structure height along the path.

Obviously as I have talked before, the crossings over the railroad tracks and -- will be up to 130 feet tall depending on the detail design.

CHMN STAFFORD: Okay. And then we were coming down, what's the road, is that Grant?

MR. BRYNER: Grant.

CHMN STAFFORD: Grant. Now, I noticed a bunch of structures that looked similar to this on the south side of the street. That's the 46kV that you put on the 138kV poles, correct?

MR. ROBINSON: They are engineered to 138 standards, yes.

CHMN STAFFORD: Okay. So you could put --

the project line could use those poles that are already on that -- on Grant Road after the expansion part that's there, because I noticed at first they're the smaller wooden poles, and you got, after a point they look like that. So those are the ones that you're talking about.

MR. ROBINSON: That we would reuse where possible on the south side of that road, yes.

CHMN STAFFORD: Okay.

MR. ROBINSON: That is that segment area.

MEMBER LITTLE: Chairman.

MR. ROBINSON: So Park to 11th.

MR. BRYNER: And I know there was a question about the height of those poles, and those are between 80 and 100 feet in height but, again, that's the total pole length. Once you add some embedment in there they're between 65 and 85 foot in height aboveground.

CHMN STAFFORD: So they're about 10 feet in the ground.

MR. ROBINSON: 15 feet.

CHMN STAFFORD: 15. Okay. Member Little, you had a question?

MEMBER LITTLE: Yes. This question doesn't have to do with the project. I notice that this pole right here has one circuit that goes through and into the WAPA substation. The other circuit dead ends. Why?

MR. BRYNER: So that's because this 230 is a double circuit with WAPA on one circuit, TEP on the other circuit. Our 230kV line is in the other circuit. So it's dead ended right now because we haven't finished the GIS substation in the vacant lot yet.

MEMBER LITTLE: Thank you.

MR. ROBINSON: And I could probably add a little bit more detail. Actually if you go across the freeway from here, the line terminates to begin with. We built this early to accommodate reconfiguration of the 138 line into the GIS substation so that we could restring our lines without conflict in WAPA.

CHMN STAFFORD: All right. Do any of the intervenors have any questions?

MR. BRYNER: I think Member Kryder had one.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Give me some comparative look at this side of the station and the vacant lot. What's going on over there? Is this site going to look like this side, or are they significantly different, et cetera.

MR. BRYNER: To give you an idea of what the east side of Flowing Wells would look like, it would be best to compare you to the GIS substation that's just north of us. So that's a 138kV GIS substation. We'll be

building a 230kV GIS substation similar to that in this lot. What you're seeing most close to us, that's a generating station.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Are we going to drive up so we can see that substation a little more closely?

MR. BRYNER: Yes, we will be. We'll be jumping on the buses and driving right past it. We can drive very slowly if you'd like, or we could even walk up there if you wanted.

MEMBER LITTLE: Thank you.

MEMBER KRYDER: Following up on Member Little's question, this substation straight ahead of us is enclosed. Is it enclosed in order to be refrigerated like this seems to be, or is it just to keep it out of the sun?

MR. ROBINSON: Yes. What you'll see is when we walk up, it's just an overhead canopy, it's not enclosed. The lower portion of the building is open air.

MEMBER KRYDER: Okay.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: In the worst-case scenario lightning strikes this place, is everything grounded?

MR. ROBINSON: Yes, sir, the entire area has a ground grid and all of the structures and the facilities are tied into that ground grid.

MEMBER GOLD: Are there any circuit breakers or anything else that would keep equipment from burning out?

MR. ROBINSON: Yes, our standard designs for our substation for protection of the lines and the equipment within the substations has breaker protection at the departure point of the substation.

MEMBER GOLD: What about the entry to the substation?

MR. ROBINSON: Same. There's entry and exit for the substation, has breaker protection on it.

MEMBER GOLD: Okay. This is getting a little technical. The breakers, they are geared to protect against a lightning strike. Are they geared to protect against solar flare?

MR. ROBINSON: They are not. We have lightning arresters at the transformers and major equipment, primarily the transformer that would protect against a lightning strike on the line.

And solar flare in this area, we have yet to have maintenance or problems from solar flare, EMF, electromagnetic frequency flares from solar. That would

cause operational issues at the transformer level for us.

MEMBER GOLD: So I'm guessing transformers are pretty protected against electronic interference even lightning strikes or solar flares. What about your switches?

MR. ROBINSON: So the switches are voltage rated, but they would be protected by the breakers for over voltage, over current, and by the lightning arresters that are on the lines and on the transformers. They are not in and of themselves technically anything but a voltage break for the system.

MEMBER GOLD: Regarding terrorism, is there anything that a terrorist could do to put this station out of operation electronically?

MR. ROBINSON: We have regulated CIP standards, yeah, that require us to protect the vulnerabilities of our facilities and also protect the way that we protect those vulnerabilities through our CIP standards. So I'm not able to share all of the protections that we have, but we have electronic protections associated with that. CIP, they're called cyber infrastructure protection standards.

MS. GRABEL: I heard several of the members, or a couple of members ask what WAPA is. You might want to clarify.

MR. ROBINSON: WAPA is an acronym that stands for Western Area Power Administration. They are a government entity that is a power company.

CHMN STAFFORD: Any other questions from members? No questions from intervenors?

MR. BRYNER: Before we go off the record can we give you a quick preview of what we'll see?

CHMN STAFFORD: Yes, please.

MR. BRYNER: So as we leave the DeMoss-Petrie Substation, we'll travel north on Flowing Wells. We talked a little bit about some of the poles up there. I'd just say take a quick look at the painted poles, the larger poles as we make a turn to the right.

And also we're going to be traveling back towards the Vine Substation along our preferred route, so Route B is what we're going to be looking at. And so, again, take a look at the poles.

We did see them on our way in, they'll be on the south side, the right side of the bus as we're going along. And then once we make a turn on to Park Avenue we'll be in Jefferson Park, and we'll have a little bit of narrative on the bus in there.

MR. ROBINSON: Clark, can I add one more thing? Just a reminder, I didn't mention this in safety preview, but as we enter and exit the buses I noticed a

few people were walking on the road surface, and that is a very extreme hazard. I would ask that you stay off the paved road surface while you're walking. And help avoid a potential strike.

CHMN STAFFORD: All right. That concludes this stop.

Let's go off the record and get back on the bus.

(TIME NOTED: 9:57 a.m.)

(Conclusion of Stop No. 1.)

(TIME NOTED: 10:21 p.m.)

(Arrival at Stop No. 2.)

CHMN STAFFORD: Let's go back on the record. We're at stop number 2 on the tour.

Mr. Bryner.

MR. BRYNER: Okay. So we're at the location of the Vine -- well, this is where the Vine Substation will be located. Right now it's the now-abandoned U of A maintenance and facilities buildings.

You can see out the garage bay here, this is the hospital parking garage for the Banner hospital. Just north of this building is a recycling center. It's still associated with the U of A.

And just south of the parking area where we parked, as you -- when we go back out to the buses, if you look over there you'll see over the wall to the U of A medical substation, that's the 46kV substation operated by TEP that will be retired as part of this project.

Also, we came in on Vine Avenue, so if you looked to the west or out of the left side of the van you would have seen some of those residents, I believe there was the rusty wall that was pointed out in one of the photos.

One other thing, we're going to be coming into and out of this substation several times over the -- well, this substation, future substation location several times over the course of the day. So I'll try to point out a couple things for you to take note of as we come and go.

But certainly I know we can't talk outside of this, so if you see things out there, please take note of them and we'll have an opportunity to talk about that when we come back again. If needed we can walk out to some places.

One thing I do want you to take note of as we leave the building and go back down on Vine, just before we turn on Adams, which was the street that we came in on that's shared by nearly every route

alternative, out of the left-hand window of the van you're going to see a pole that's a turning structure, so you have 46kV lines coming in from the west and hitting that pole, and then it drops into the substation, it's a painted pole, and that's what happens when they fade and peel. It's just a good example pole of what a maintenance headache the painted poles are, and why TEP really wants to discourage the use of those.

CHMN STAFFORD: Yes, Ms. Hill.

MS. HILL: Mr. Bryner, is the parking structure that's behind us the parking structure that the KOP -- that the photo was taken from for the KOP that Ms. De Blasi talked about yesterday?

MR. BRYNER: No, that was a parking structure that's located on the east side of the hospital. We'll drive past that later in the day.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Can you talk to us about, as we were driving down Park Avenue, I was looking at the 46kV poles at their base. Can you give us an idea of how much bigger the base or the footprint is going to be for the new poles versus those poles.

MR. BRYNER: So I'll ask Mr. Robinson to help me out with this, but to give you an idea of the

height of those poles, so there was a mix of some steel poles and primarily wooden poles, though, along there. And those wooden poles are 60 feet tall. So, again, there's the embedment that we talked about at the last stop, so they're probably about 50 foot or so aboveground.

The steel poles that were closer to Grant, those were around the 78 to 80-foot range, their height is a little bit taller.

MEMBER LITTLE: It seems to me that for most residences they're going to be more concerned about what they see right in front of them as opposed to that.

MR. BRYNER: So the diameter of the wood poles --

MR. ROBINSON: The diameter of wood poles range from 18 inches to 20 inches. These poles will be about 24 to 30 inches in diameter.

MR. BRYNER: So that's our typical tangent straight line pole as opposed to the dead end structure that we were standing next to at DeMoss-Petrie.

MS. HILL: Mr. Chair.

CHMN STAFFORD: Yes.

MS. HILL: Heard a question somewhere out here about whether this was TEP property that we're in.

MR. BRYNER: This is -- so TEP, yeah, we

bought this property two years ago, three, four years. Yes, it's TEP property.

MR. ROBINSON: When we applied for the special use exception from the City, we owned the property at that time.

MEMBER KRYDER: Question. You spoke about the diameter of the poles, 18 -- 14 to 18 inches as I remember, the wooden poles out here on the distribution line.

MR. ROBINSON: 18 to 20.

MEMBER KRYDER: Okay. And much of this is going, these distribution things, if this is the route that's taken will be undergrounded; is that correct?

MR. ROBINSON: Along the path that we took. I think coming down Park was a good example of what we've talked about where most of the distribution goes along the alleyways behind on the back property lines.

And as I had said before, if there's a pole in the alignment of the proposed route, that pole would go away, and in the first pole to the alleyway, the distribution would dip belowground, go across the road, and riser up on the next pole on the opposite side of the street down the alleyway.

MEMBER KRYDER: Okay. It was the riser up piece that I was headed toward. What's the size of those

poles? I'd seen some somewhere along our route that looked like they were maybe in the 10-foot range or something where a homeowner or property owner chose not to underground from your drop or from the riser.

MR. ROBINSON: From the service wire.

MEMBER KRYDER: Yeah. How big -- describe the pole that will go up so that it goes into the mast into the property owner.

MR. ROBINSON: The attachment point on the house; right? So we're talking about service wire, overhead service wire.

MEMBER KRYDER: Yes.

MR. ROBINSON: So if we have to set -- and you've seen several of them along the way, a service wire pole is about the height of that blue steel column pole, about 18 to 20 feet tall.

MEMBER KRYDER: Okay.

MR. ROBINSON: And you've seen them, they're weathering poles. They're maybe 10 inches in diameter.

MEMBER KRYDER: And they're wooden.

MR. ROBINSON: No, most of ours are -- our new standard now today is that would be a steel pole.

MEMBER KRYDER: Okay. And would be one of the three colors that you talked about, stainless,

painted or the COR-TEN.

MR. ROBINSON: On our distribution system, those would be weathering steel.

MEMBER KRYDER: Okay. COR-TEN.

MR. ROBINSON: Yeah.

CHMN STAFFORD: Yes.

MS. GRABEL: I have a question. This goes back to Member Little's question about the view of the residences. Is it possible to design the line to avoid placing a pole right in front of a window of a residence, for example, and spacing them in between homes?

MR. ROBINSON: Yeah, that's part of the detailed design and oftentimes part of the feedback that we will get and respond to from the customer. When we're asking for easements and right-of-way permits.

MS. GRABEL: Thank you.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Any other questions from members? Mr. Lusk, you have a question?

MR. LUSK: Thank you, Mr. Chair. Related to Mr. Robinson's just previous statement about within the alignment, is that -- can you clarify, is that within the right-of-way that you're asking for or is it within the corridor that you're asking for, or is there -- what's the width that you're talking about when you talk

about the alignment?

MR. ROBINSON: The alignment? Can you clarify the context of --

MR. LUSK: Sure. So you said that any distribution pole within the alignment would be undergrounded.

MR. ROBINSON: Yes.

MR. LUSK: Does that mean it has to be directly in line with the other poles or is there sort of a width of that?

MR. ROBINSON: So depending on, and we made a commitment to underground the distribution on both sides of the street, so that would include poles that are within that road right-of-way on both sides of the street on the path that we've chosen.

MR. LUSK: Gotcha. Thank you.

CHMN STAFFORD: Okay. So to follow up on that, when you came down Park, we had -- you're coming this way, on the left-hand side those are the 46kV distribution poles there.

MR. ROBINSON: 46kV with distribution underbuild, yes.

CHMN STAFFORD: Okay. So there's lower, it's like the 4kV --

MR. ROBINSON: Yes.

CHMN STAFFORD: Is that what it was?
MR. ROBINSON: 4kV in this area.
CHMN STAFFORD: That was like the lower.
MR. ROBINSON: Yeah, horizontally arms that are on the poles.
CHMN STAFFORD: Okay. So the 46kV will be replaced by the 138kV; correct?
MR. ROBINSON: That's correct.
CHMN STAFFORD: And the 4kV may or may not be replaced by 14kV and that will be underground running parallel with the 138kV line?
MR. ROBINSON: That's correct. In the road alignment along Park we would have underground 14kV. We would build it to 14kV even if we energized it at 4kV.
CHMN STAFFORD: Okay.
MR. ROBINSON: We'd build it to 14kV standard and have our junction boxes and things like that in an acquired easement along parallel to -- to that path, the road.
CHMN STAFFORD: Okay. So it looked like the line with -- the existing line looked it was on the east side of the road coming down Park.
MR. ROBINSON: Yes.
CHMN STAFFORD: Okay. So that's -- the new line would be in that same -- on the same east side;

correct? Or would you anticipate having to go to the west side of the road as part of that segment from along Park?

MR. ROBINSON: So our current anticipated design is on the east side; right? Like I said before, we have detailed engineering that would incur -- that would have to occur. We do plan according to testimony to stay on either the east side or the west side. But along Park will be on one side of the road consistently.

CHMN STAFFORD: Okay. All right. Member Hill?

MEMBER HILL: I have a question about the undergrounding of the communications and other utility infrastructure that you don't maintain.

MR. ROBINSON: The joint-use attachments.

MEMBER HILL: Yeah, the joint-use attachments, thank you. Who's covering the cost of undergrounding that? Is that a shared cost with the companies that maintain that equipment? How is that parsed?

MR. ROBINSON: I don't know the answer to that.

MR. BRYNER: It depends on the agreement with the utility. For the most part, it would be at their expense. There is -- with at least one of the

utilities there's an agreement where that would be at our expense.

MEMBER HILL: Okay. All right.

MR. ROBINSON: I can add, though, we do have a joint utility agreement where they can if they want, be part of our install for the underground at a shared cost.

MEMBER HILL: At a shared cost. All right. That's helpful.

CHMN STAFFORD: Right, because you're going to underground the distribution line anyway. If they get on the bandwagon fast enough, they can get their stuff in the ground the same time you do yours, then that would be the benefit of doing it at that time.

MR. ROBINSON: That's correct.

MR. BRYNER: And our plan, as soon as we have an approved route so we're going to notify them so that they have the exact amount of time to design what they need to do as we do, so that there should not be any lag.

CHMN STAFFORD: Okay. Any other questions from intervenors?

MR. DEMPSEY: So this pole right here, this duction pole, it looks like --

CHMN STAFFORD: Can you step a little

closer? Can you hear him all right?

MR. DEMPSEY: Those four wires on the bottom, are those all communications, I presume?

MR. ROBINSON: Yeah, those are joint use attachment, some are communications.

MR. DEMPSEY: What's kind of the normal? Is it normal to have four? Is it normal to have three? Is it normal to have one? Because I mean, I assume that, I mean, I guess those could be --

MR. ROBINSON: We have many, many different communications and different service providers that have access to joint use to any of our distribution system. So Quest may own two or three of those cables, but they may only own one and one of them might be Cox. One of them might be Century Link, one might be Comcast. It just depends on who's permitted and asked for application to attach to the pole.

MR. DEMPSEY: Do you have an average or do you know like roughly usually what it is, is it like two per pole, one per pole?

MR. ROBINSON: Our design standard is to design the distribution to accommodate for five attachment points.

CHMN STAFFORD: Any other questions? Intervenors? Members? Going once.

MEMBER RICHINS: Just confirming everything on the site is getting flattened and you're building all your own structure here; right?

MR. ROBINSON: That is the anticipation that all of these existing buildings will be demolished.

MEMBER RICHINS: Okay.

MR. ROBINSON: Prior to building the 138 substation.

MEMBER KRYDER: And when that is built out it will not impact University of Arizona's site which is immediately next door; is that correct?

MR. BRYNER: That's actually our site immediately next door, their site is --

MEMBER KRYDER: Oh, the next one down.

MR. ROBINSON: The next one down. That's correct.

MEMBER KRYDER: Okay.

MR. ROBINSON: So our site, U of A med, will eventually be decommissioned.

MEMBER KRYDER: Okay. That was my question.

CHMN STAFFORD: So their substation will -- you say it's going to be subsumed or supplanted by this substation; right?

MR. ROBINSON: U of A's facilities will be

fed out of this facility and they'll stay in service.

CHMN STAFFORD: Okay. So they will keep their substation, then.

MR. ROBINSON: That's correct.

CHMN STAFFORD: Okay. Any other questions? Intervenors, members?

MR. BRYNER: Can I do a super quick preview before we go?

CHMN STAFFORD: Certainly, take it away, Mr. Bryner.

MR. BRYNER: So one other thing to take note of as we go out of here, we're going to go follow our preferred Route 4 all the way down to Kino, so you get the contiguous preferred route, you see the whole thing.

So we're going to go down Adams, down Park, Speedway-Euclid is going to be one just after we turn, Speedway is going to be a big main road. And then you'll see the large building as part of university there. We'll go down Euclid, so that's something I think you should pay particular attention to.

But also just as we're leaving here, take a look at substation walls for the existing stations we're leaving. So the U of A med station, you're going to see infrastructure coming up and wires dropping in.

And that's kind of a red brick wall with some white outlines. You'll see a darker red brick wall just to the south of that. That's going to be the wall that encompasses the university's GIS substation.

You're not going to see any infrastructure poking up over the wall there, but that wall we're going to mimic or that's our plan is to mimic that wall around this site, the entirety of this site.

CHMN STAFFORD: Member Richins.

THE REPORTER: Come closer.

MEMBER RICHINS: I was coming. I gotcha.

THE REPORTER: I appreciate you.

MEMBER RICHINS: Now I forgot my question. Shoot.

MEMBER HILL: Make sure you enter that into the record.

THE REPORTER: That's not my fault.

(Laughter.)

MR. BRYNER: We'll be back here several times, so it'll come to you.

CHMN STAFFORD: All right. Anything else?

(No audible response.)

CHMN STAFFORD: All right. Let's go off the record and get back on the bus.

(TIME NOTED: 10:37 a.m.)

(Conclusion of Stop No. 2.)

(TIME NOTED: 11:10 a.m.)

(Arrival at Stop No. 3.)

CHMN STAFFORD: Let's go back on the record. We are at stop number 3.

Mr. Bryner.

MR. BRYNER: All right. Okay. So we are -- well, we're close to the Kino Substation. We drove past the Kino Substation on our way in. You can see it off to the northwest, the structures coming in.

The park that we're in right here, this was part of the agreement we had with Pima County to purchase the site for the Kino was to help build this park. And so it's just a natural park right here.

We're within the Pueblo Gardens neighborhood. I think there were a couple folks from Pueblo Gardens who have commented on the project.

And then you also saw the Bridges development being nicely blocked by the mesquites here, but is out there west. That's all I wanted to say.

CHMN STAFFORD: Any questions from members? Intervenors? Question.

MR. LUSK: Roi Lusk for the City of Tucson.

Mr. Bryner, I know the script mentioned the

Gateway Corridor and there's a portion of transmission line. How long is that portion?

MR. BRYNER: So it's about a half a mile along the Benson Highway. So it's sort of a continuation of the Kino Campbell corridor going all the way down to the airport.

MR. LUSK: Thank you.

MS. GRABEL: Mr. Bryner, I have a question. Several of the members have asked questions about the height and dimensions the poles. Will they be similar to the MRP project to the Irvington to Kino poles that we passed on this leg?

MR. BRYNER: Yeah, and I'll let Mr. Robinson answer.

MR. ROBINSON: Yes, they will be except for in the areas where we don't have double circuit configuration. We're going to design it only single circuit capable so the poles will be a little bit smaller in diameter but the same width.

MS. GRABEL: And same width.

MR. ROBINSON: A little bit smaller. Yeah.

MR. BRYNER: That was one of the things that we did to try to bring the overall size of the structures down was do that single circuit design.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: We made a couple of jogs as we were coming down Euclid. One, I guess the street jogged over and then we had a little jog off of Euclid and back on to Euclid. What was the reason for those?

MR. BRYNER: So that first jog was because the street jogged. The other one was so that we didn't try to cross 22nd Street, which is a very busy road. So that we could take a right-hand turn, it was just logistical for our tour.

MEMBER LITTLE: Oh --

MR. BRYNER: The transmission line goes straight.

MEMBER LITTLE: Oh, thank you.

MR. BRYNER: Yes. Sorry.

CHMN STAFFORD: Any other questions?

MS. DE BLASI: Chairman.

CHMN STAFFORD: Ms. De Blasi.

MS. DE BLASI: Michelle De Blasi for Banner. I just want to know since we're not going to have a chance by the time we get up to turn on to the Banner campus on the next stop, you look at G where we turn on to the Banner campus, if the members could just note some of the features that are next to the campus.

Our witness is going to be referring to

some of those in his testimony. So be helpful for you to kind of note what's around the facility on that route, when we make the left turn.

CHMN STAFFORD: At stop 4, are you talking about the G --

MS. DE BLASI: Exactly.

CHMN STAFFORD: Got that, Members?

(Reporter clarification.)

CHMN STAFFORD: The stop 4, the G comment, she said pay attention to that area.

MS. HILL: I have a quick question. Mr. Bryner, as I'm standing here and I'm looking straight ahead I see what appears to be a transmission pole. Is that the Irvington to Kino line?

MR. BRYNER: No, those are actually 46kV lines that go towards our Pueblo Gardens substation. Those go along 36th Street, those are built to a 138kV standard so they look identical. Those would be retired as part of this project.

MS. HILL: Okay. But that pole is the appropriate height, it reflects the same height as the poles would be for this line or no?

MR. BRYNER: I would say roughly.

MS. HILL: Okay. Thank you.

CHMN STAFFORD: Anything further? All

right.

MR. BRYNER: Can I give a quick preview?

MS. DE BLASI: Mr. Bryner.

MR. BRYNER: So we're going to follow Route 2 -- sorry -- Route 1 up to the Vine Substation. It is common with some of the other routes, Routes 2 and Routes 3 for a little bit. We are going to be making several jogs where the transmission line doesn't go, again, those are logistical so that we can get around and primarily so we can get over the railroad tracks and Aviation Highway.

We are also going to take a detour off of the portion of Campbell Avenue that's not within the gateway so that we can go and drive by our warehouse substation. That's one of the older 46kV substations. That's at point D on route tour map 4.

So we'll go see that so you can get an idea of why that infrastructure needs to be replaced, why we feel it needs to be done urgently. Just to give you an idea.

CHMN STAFFORD: All right. Anything else?

(No response.)

CHMN STAFFORD: All right. Let's go off the record and get back on the bus.

(TIME NOTED: 11:15 a.m.)

(Conclusion of Stop No. 3.)

(TIME NOTED: 11:46 p.m.)

(Arrival at Stop No. 4.)

CHMN STAFFORD: Let's go back on the record. We are at stop number 4.

Ms. De Blasi, you wanted to point something out in this area.

MS. DE BLASI: Yes. The features on the corner passing on to the Banner campus, there's a retention area to the left that you might have noticed, the park feature to the right on the road, which is the buffer between Banner and the Jefferson Park neighborhood, that's part of an agreement that Banner maintains for the neighborhood. And just generally the sort of width and constraints.

CHMN STAFFORD: We're back at the future substation.

MR. BRYNER: Future Vine Substation, yes.

CHMN STAFFORD: So we've seen this already. So do you have -- do you want to tell us what we're going to see next?

MEMBER LITTLE: Could I ask a question?

CHMN STAFFORD: Sure. Member Little.

MEMBER LITTLE: I noticed when we were

driving up Campbell that after we were in the Gateway Corridor area section, that, for example, crossing Speedway the 46kV goes underground through the intersection and then there's a riser pole on the other side.

If this route were to be approved and if you were to be able to put it overhead, would you underground through the big intersections or just tall poles?

MR. BRYNER: Our plan would be no underground on any intersections with the exception of the lower voltage distribution. We would put that underground throughout. So all of the -- all of the distribution you saw along the majority of the left-hand side -- right-hand side -- told you I was dyslexic -- the right-hand side as we were coming up, or the east side of the road that would all go underground if Route 1 were selected.

MEMBER RICHINS: Chairman, quick follow-up on that specific -- the lines that go across the street, so they span Campbell from side to side --

CHMN STAFFORD: Okay.

MEMBER RICHINS: -- that's part of your distribution network, and would those go underground or would they continue to cross the street overhead instead

of running parallel they go perpendicular to the other side of the street?

MR. BRYNER: Larry, are you visualizing this?

MR. ROBINSON: Yeah, it's the same response that we talked about on the alleyways. Right? One structure each side of the street. We would go to a riser pole, go down underneath the street and then riser back up.

MEMBER RICHINS: That's what I was wondering, if those would go under.

MR. ROBINSON: That's the plan.

MEMBER RICHINS: I mean, that's a huge visual impact, the cross wires, too, having those go out there. Thank you.

CHMN STAFFORD: Member Hill.

MEMBER HILL: So Mr. Bryner, at one point we were talking about the right-of-way -- the corridor width in this section. And I pointed out that like the corridor width in this section included Vine and Ring Road, so we wanted clarity around this.

As we were coming up Ring Road, I did take a look at the Banner property. I was curious to hear what the agreement is with the neighborhood, so we understand the context for that. But I feel like at some

point you said over the last couple of days that you want too keep the corridor wider in this area to give you flexibility.

The Ring Road is a private road; correct? How is Ring Road and Vine -- how are you evaluating the corridor through here?

MR. BRYNER: And so there's, as you might have noticed we came in on Ring Road from the east so Ring Road wraps around a ring from --

MEMBER HILL: The Banner ring.

MR. BRYNER: It's east-west on the stretch we're talking about, north-south along where we're at right now at the future Vine Substation site.

So where we're talking about that flexibility was on the east-west portion of Ring, and the reason for that was, again, I think I talked about it a little bit yesterday, but we don't have a right to go on Ring Road because it's not a public road, it's private, whereas Lester we do. And so if Banner didn't want us to go there, but for condemning them we wouldn't be able to go there.

MEMBER HILL: Okay. All right. That's helpful.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Follow-up question to that.

Yesterday, you showed pictures of what the proposed transmission line would look like from one of the patient rooms I assume up high in your building.

Can you compare that to what this currently looks like?

MS. DE BLASI: Chairman, if I could just answer, it's probably more appropriate for Mr. Bryner. But I believe the rendition, that was the Applicant's rendition. I believe it was KOP 29.

That was from the parking garage, that's the three-story garage as you enter that's next to the Banner hospital building, which you'll note there's quite a few windows there which are patient rooms and such, and then you've got the children's tower next to it. And our witness will be showing some rendering from the actual patient rooms, but that rendering was from the parking garage.

CHMN STAFFORD: I thought it was the roof of the parking garage.

MR. BRYNER: The upper level.

MS. DE BLASI: Right, looking out toward the Catalinas, and I believe the testimony was that the current lines are 45 feet of 46kV and the planned lines would be 90 to 95; is that correct, Mr. Bryner?

MR. BRYNER: I think Larry testified to

that.

MR. ROBINSON: Yeah, that's correct, 85 to 95.

MEMBER LITTLE: Okay. Thank you.

MR. BRYNER: I can give you, Member Little, just a little context, the steel -- the weathering steel pole we're seeing to the northeast of us -- northwest of us, that one's 78 foot tall. So that's approximately the height of the new structures we'd be putting in. I didn't look up every pole so I can't tell you how tall this wooden one is.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Campbell Avenue when we --

CHMN STAFFORD: Please speak up.

MEMBER GOLD: Campbell Avenue, the road we just drove down, has distribution lines on it; correct?

MR. BRYNER: Correct.

MEMBER GOLD: If we do not choose Route 1 and we choose your preferred route or any other route that doesn't include Campbell Avenue, what happens to those distribution lines? They stay?

MR. BRYNER: Correct.

MEMBER GOLD: Okay. How did they get permission to be on a corridor or whatever that corridor

is called.

CHMN STAFFORD: Zone.

MEMBER GOLD: Zone.

MR. BRYNER: That might be a question for the City.

MR. LUSK: If I may, Roy Lusk, City of Tucson, I can't give you that information because I don't know when those poles were installed.

MEMBER KRYDER: We can't hear you.

CHMN STAFFORD: Yeah, we can't -- speak up, please.

MR. LUSK: Sorry, I don't -- I don't know the answer to that question, because I don't know when they were installed, and whether they were installed under prior rights that TEP may have had. The Gateway Corridor Zone does allow for replacement of existing poles.

MEMBER GOLD: So may I ask another question of you?

MR. LUSK: Sure.

MEMBER GOLD: Do you intend to leave those poles up or do you intend to underground them to make your Gateway Corridor look good.

CHMN STAFFORD: Member Gold, I believe Mr. Lusk is going to have a witness to testify in the

hearing.

MEMBER GOLD: We can't ask you questions?

CHMN STAFFORD: He's the lawyer. He's not the witness. He hasn't been sworn. We need to ask the witness that gets sworn the question.

MEMBER GOLD: Oh, so who should I address that question to?

CHMN STAFFORD: Who will be your witness, Mr. Lusk?

MR. LUSK: That'll be Mark Castro from the planning and development services department.

MEMBER GOLD: So I would request that that question be asked to him at some time. Can you arrange for that?

MR. LUSK: Sure.

MEMBER GOLD: Thank you.

CHMN STAFFORD: Do you have the question, Mr. Lusk?

MR. LUSK: I do.

CHMN STAFFORD: Okay. Great. So he can prepare his witness to answer that question when he testifies under oath at the hearing.

Yes, Mr. Dempsey.

MR. DEMPSEY: So I had a question for Larry, and that is when you underground distribution is

it one conduit, is it multiple conduits, what size is the conduit?

MR. ROBINSON: Yes, we have several different conduit standards in our distribution system. So for feeder distribution which is 600-amp rated, it goes in a six-inch conduit as a standard and we generally like to put a spare conduit in when we're putting in new underground conduit just in case we have a failure or a dig in or something like that. It just helps for restoration of power.

Our 200-amp system, which is three phase, but isn't as -- doesn't carry as much power, the standard is a four-inch conduit. All three phases will go into one four-inch conduit, and, again, we like to put at least one spare in that trench with that, so we can restore power easier in the future if needed.

And then our single-phase and service conduits are both two and a half inches in diameter.

We would probably unlikely put in a spare conduit to a service wire as most of the time if there's failure we can pull out the old service wire and put in a new one.

MR. DEMPSEY: Thanks. So on the six-inch one you also put all three --

MR. ROBINSON: All three phases are in one

conduit.

MR. DEMPSEY: And then so as far as the communications go, they each get their own conduit. How does that work? Generally -- I mean, I realize it's different.

MR. ROBINSON: Yeah, my understanding is that each service provider, joint-use attacher, would put their own conduit in the ground.

MR. DEMPSEY: That's usually two and a half, two inches as well or do you know?

MR. ROBINSON: I think that's highly dependent on the utilities that are in service.

MR. DEMPSEY: Thank you.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Just to follow up, are the conduits for the higher voltage, the distribution that you were talking about, the 600-amp, are they concrete encased? Or just concrete buried -- buried conduit.

MR. ROBINSON: On the distribution system, most conduit is direct bury without concrete.

MEMBER LITTLE: Thank you.

MR. ROBINSON: Yeah, the feeder getaways out of the substations are concrete encased, but that's only right at the substation.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Any other questions from members?

MS. GRABEL: I have a clarifying question. Mr. Bryner, following up a question that Member Hill asked you, I wasn't here but I understand there was some concern over the width of the corridor along our preferred route when we were going through the virtual tour. Did you remember that?

Are we going to actually narrow the corridor requested for the preferred route?

MR. BRYNER: We are going to narrow that down everywhere, and we'll have an exhibit for that prepared tomorrow. But we were hoping to keep the 400-foot-wide along Route 1 if that were selected.

MS. GRABEL: Okay.

MR. BRYNER: Sorry. Between the Vine Substation and Campbell Avenue.

CHMN STAFFORD: Right. That would allow you to do either Ring Road or the public road which is called --

MR. BRYNER: Lester.

CHMN STAFFORD: Lester. Okay. That's the point of that; correct?

MR. BRYNER: That's correct.

CHMN STAFFORD: All right. Do the

intervenors have any questions? Any other questions from members? All right. Mr. Bryner, are you going to tell us what's up next on the agenda?

MR. BRYNER: Our next stop is to follow Route D, the rest of what we were calling the Campbell Avenue route back to DeMoss-Petrie. I would just ask does the Committee want to do that and then do lunch or do lunch and then do that?

CHMN STAFFORD: Members, do you have a preference?

MEMBER KRYDER: Let's do that and then lunch.

CHMN STAFFORD: That sounds good to me. Anyone else, an opinion?

All right. We will continue with the tour and then after we take this next leg we'll do lunch.

MEMBER KRYDER: Thank you for asking.

CHMN STAFFORD: Anything further?

(No audible response.)

CHMN STAFFORD: With that, let's go off the record.

(TIME NOTED: 11:58 a.m.)

(Conclusion of Stop No. 4.)

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(TIME NOTED: 12:16 p.m.)

(Arrival at Stop No. 5.)

CHMN STAFFORD: Back on the record. We are at stop number 5.

Mr. Bryner.

MR. BRYNER: So just for the record this is our last time we're going to be at the DeMoss-Petrie location, so if there are any questions with respect to anything around here or what's going on, please ask them now if it requires some visual reference.

I think Member Little had -- or no, that wasn't on -- never mind.

CHMN STAFFORD: We've been here before, so unless any members have questions or any of the intervenors have questions.

MR. LUSK: Just real quick.

CHMN STAFFORD: Yes.

MR. LUSK: Mr. Chairman, Roi Lusk from the City of Tucson. Mr. Bryner, I'm trying to recall from the visualization from yesterday, but the Grant Road portion is all on the north side? Or does it go back and forth?

MR. BRYNER: So we -- in the 3D tour we did --

MR. LUSK: Yes.

MR. BRYNER: -- we were showing it on the north side. But it could be on the south side, again, with the corridor we're requesting. What we would like to do is possibly reuse the 46kV infrastructure on the south side, because that was recently built or rebuilt as part of the Grant Road expansion, and to a 138kV standard. So that 46kV line will no longer be needed once we finish this project.

And so -- and, in fact, we'll be able to retire that line before finishing this because we have multiple sources into the sub. And so use that for our 138kV line.

MR. LUSK: Okay.

CHMN STAFFORD: But in the end there'll be one line on Grant Road.

MR. ROBINSON: Clark, can I clarify one point? The way -- the way it is currently preliminarily designed from Flowing Wells to 15th Avenue or 15th Road; right, it'll be on the north side and collocate with the existing 46 and then cross to the south side to utilize the existing 46kV lines that Clark was just describing.

MR. LUSK: Thank you.

CHMN STAFFORD: Any other questions? All right. Mr. Bryner, I believe the next stop instead of being number 6 will be lunch.

MR. BRYNER: Will be lunch. But we will do -- follow the tour map between stops 5 and 6, which is map 6 part of the way back along Grant Road to Stone, but we're going to go down Stone to Brother john's for lunch and then we'll go back up Stone to Grant Road and finish up the rest of map 6 which is Route A.

CHMN STAFFORD: Anything further?

(No audible response.)

CHMN STAFFORD: Let's go off the record.

(TIME NOTED: 12:19 p.m.)

(Conclusion of Stop No. 5.)

(TIME NOTED: 2:00 p.m.)

(Arrival at Stop No. 6.)

CHMN STAFFORD: Let's go on the record.

We're now at stop 6, Vine, the proposed Vine Substation. We have a total number of 11 stops but the most value of the tour is actually traveling the route. So in the interest of saving time and staying out of the heat --

MEMBER KRYDER: Map 7.

CHMN STAFFORD: You're at stop 6.

MEMBER KRYDER: Oh, 6.

CHMN STAFFORD: 6 and 7 is the same, it's the proposed Vine Substation which we've been to at least

once before, twice before, so I propose we just continue the rest of the route, but kind of roll through the stops, not actually stop and get out, because I think if the members have questions you can note them on the map and then we could ask them back at the hearing.

MEMBER KRYDER: That's a good plan.

CHMN STAFFORD: It's getting hotter and hotter, and the shade is getting fewer and far between. So I think it would be prudent to just -- the most value is just driving the routes to see what the streets look like and see what we're looking at and see where the lines would be to give us -- we can have a better sense of what is there. So does that --

MEMBER KRYDER: Terrific.

CHMN STAFFORD: Does that sound good to everyone? Intervenors? Applicant? Members?

MR. LUSK: City of Tucson concurs.

CHMN STAFFORD: All right. Well, with that we'll resume the tour, but at each stop instead of stopping, getting off the bus, we'll keep going on. I think the narrative should be that's been provided, should be sufficient to point out what we're looking at.

If you have questions, you can't ask them on the bus. We need to have them done on the record before the court reporter; she's not set up on there. So

if you could just make a note, when we get back to either the hotel -- we're going to go back to the hotel after we complete the tour, go on the record, and it was my intent to just recess for the day and just deal with any issues, get ready for tomorrow morning and come back -- recess for the day and then come back tomorrow at nine and finish up. The applicant's got two panels left.

Mr. Bryner, again, has got the outreach covered, and then there's another panel with I believe Mr. Robinson and the expert -- what's your name again, sir?

MR. JOCHAM: Mr. Jocham.

CHMN STAFFORD: There you go.

MEMBER RICHINS: We've been waiting for him.

MS. DE BLASI: Chairman, I'm sorry.

CHMN STAFFORD: Yes.

MS. DE BLASI: Can I just point out one thing while we're here just because it's just the proximity that we're going to be talking about. So if we go back out the way we just came, you'll note there is a helipad on top of the hospital where there's a helicopter right now.

CHMN STAFFORD: Yeah. You saw it on the way in.

MS. DE BLASI: Yeah, perfect, so if the Committee members would just note the proximity of the helipad to the road, that would be fine.

CHMN STAFFORD: Excellent. All right. Any questions before we get back and complete the tour?

(No audible response.)

CHMN STAFFORD: All right. Thank you very much.

With that, let's go off the record.

(TIME NOTED: 2:03 p.m.)

(Conclusion of Stop No. 6.)

(The tour concluded at 3:23 p.m.)

(The hearing resumed at 3:38 p.m.)

CHMN STAFFORD: Let's go back on the record. We have completed the tour. I think that it was very informative. I'd like to commend the Applicant for putting it together, having the narration that was filed as the buses were moving at the certain observation points to point out what we were looking at. I think that was extremely helpful and I would like to say that you have set the bar very high for future tours.

MS. GRABEL: All right.

MS. HILL: That includes ourselves, unfortunately.

CHMN STAFFORD: I think we've seen enough for today. Tomorrow we'll be back. You still have your second panel on. I believe that you were going to wrap up some comparisons about the different segments of the line, and after that you have Mr. Bryner on, is it panel of one, with the outreach and notice provisions, then follow that would be the fourth panel with your underground expert.

MS. GRABEL: That was the plan. However, we were thinking that because there's a lot of interest in the undergrounding panel, perhaps it makes sense to do the undergrounding panel before Mr. Bryner's public outreach section. That's of course assuming there's no objection from the other parties or the Committee Members.

MR. LUSK: If I could, please, Mr. Chair. Go ahead.

CHMN STAFFORD: I think it's an excellent suggestion. I think everyone, that's kind of the meat of the subject that we really need to get to is the undergrounding issue. I think that you would make more sense to get to that sooner than later.

Mr. Lusk, did you have a thought on that?

MR. LUSK: Yes, Mr. Chairman. Unfortunately, I will be unavailable from nine to about

11 tomorrow. Ms. Stash will be available here, but I was hoping to be able to conduct my cross in person, so we would sort of be more apt to want to have the -- sorry, I'm blanking right now because it's so hot.

MS. GRABEL: Public outreach.

MR. LUSK: The public outreach -- thank you -- panel first if that's possible.

CHMN STAFFORD: I think -- frankly I don't think you'd get to your cross on the undergrounding panel before 11.

MR. LUSK: Understood.

CHMN STAFFORD: Even in the most optimistic scenario. So certainly we could -- you'll be available for cross after that. There's only -- but there's a presentation for his direct, so I don't know, the only thing you'd really be missing out would be any questions from the members that you missed, I think.

MR. LUSK: Right.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm just wondering if Mr. Lusk may feel he would prefer to hear the presentation.

MR. LUSK: That would be my preference. Thank you, Member Little.

MEMBER LITTLE: To help with developing questions.

MR. LUSK: But obviously we're only one party so we understand.

CHMN STAFFORD: Mr. Dempsey.

MR. DEMPSEY: So is that -- are we still going to do the route summary parts? Do we have to do that?

CHMN STAFFORD: Not today. That's what we'll start tomorrow, with the route summary.

MR. DEMPSEY: So that might take an hour.

CHMN STAFFORD: Well, I guess it would depend how much, how many questions the members have. I know they had some questions about that, but I don't think -- I'd be surprised if it took an hour.

MR. DEMPSEY: All right. I was just throwing that out there.

CHMN STAFFORD: Ms. De Blasi, any thoughts?

MS. DE BLASI: Banner doesn't have a preference either way. Whatever works best.

CHMN STAFFORD: All right. So Mr. Lusk, you'd be -- you said you'd be here by 11?

MR. LUSK: That's -- that's my goal. And we're doing some interviewing in our office and we'll conducting those interviews at nine and ten.

CHMN STAFFORD: Okay. Well, we'll be starting with the questions, the route comparisons and then we'll see how long it takes us. I think if we start, if we start the undergrounding panel at around 11, 11:15, Ms. Grabel, do you think that would be able to get through direct through that day and get to cross?

MS. GRABEL: Mr. Chairman, Committee Members, I suppose that depends on how many, how much -- how many questions the committee members have, and I assume you have quite a few questions. I would also note that I don't think the public outreach section is going to take very long.

CHMN STAFFORD: Right.

MS. GRABEL: So I'm not even sure if we do the summaries and the public outreach we're going to get much past ten.

CHMN STAFFORD: Okay.

MS. GRABEL: And the City does have two attorneys here.

CHMN STAFFORD: Right. Okay. I'm just -- now, is there any availability -- is there any issues with availability for your undergrounding witnesses?

MS. GRABEL: Thank you, Mr. Chairman. No. Our expert is available to testify next week as well. We do have somebody who is providing backup to him and that

person is going to change out between Friday and Monday, but we have coverage all week.

CHMN STAFFORD: Okay. But your primary expert will be available Friday and Monday?

MS. GRABEL: Yes.

CHMN STAFFORD: Okay. All right, well, I think -- we'll be back here at nine, we'll start with the segment questions that the members had. We'll probably get through the outreach thing, I mean, all the exhibits have been stipulated for admission, so that shouldn't really shouldn't take very long. And then we'll just start with the final panel. Mr. Lusk, you said you had -- who's your colleague that would be attending instead?

MR. LUSK: That would be Ms. Stash.

CHMN STAFFORD: Okay. Well, she'll be here, right?

MR. LUSK: She will be.

CHMN STAFFORD: Okay. And then I'm sure you'll still be -- she'll -- yeah, I don't think she'll even have a chance to cross-examine before 11.

MR. LUSK: Understood, Mr. Chair. Thanks.

CHMN STAFFORD: Okay. All right. Any questions from members? Any comments to make?

Member Hill.

MEMBER HILL: I just want to say thanks for the tour today. I know it was a big lift, I mean, but really great tour, impressive. Thanks for finding all the right stops, keeping in the shade, taking good care of us. So, thank you.

MS. GRABEL: Mr. Chairman, Member Hill, we have to give a big shout-out to Clark and Adriana and Eli for pulling that together. When we toured the routes initially we didn't have the narrative and Meghan and I were like, we can't do it like this, and kind of tasked them with that and they did it very quickly, and I think they did a very commendable job as well.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Ditto.

CHMN STAFFORD: All right. Well, thank you all. We will recess for the day and be back here tomorrow morning at nine a.m.

We stand in recess.

(Proceedings recessed at 3:45 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

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Dated at Phoenix, Arizona, July 13, 2024.



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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-358

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 12, 2024

Filed: July 23, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME V
(Pages 858 through 1046)

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ACC - Docket Control - Received 7/23/2024 1:13 PM
ACC - Docket Control - Docketed 7/23/2024 2:16 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789
VOLUME IV	July 11, 2024	Pages 790 to 857
VOLUME V	July 12, 2024	Pages 858 to 1044

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719
Index to the Tour	
Stop 1	801
Stop 2	813
Stop 3	828
Stop 4	833
Stop 5	845
Stop 6	847

INDEX TO EXAMINATIONS

WITNESSES	PAGE
Clark Bryner and Larry Robinson (Cont.) - for the Applicant	
Redirect Examination By Ms. Grabel	866
Recross-Examination By Mr. Dempsey	889
Redirect Examination By Ms. Grabel	893
Clark Bryner - for the Applicant	
Direct Examination By Ms. Grabel	895
Cross-Examination By Ms. Stash	941
Cross-Examination By Mr. Dempsey	942
Redirect Examination By Ms. Grabel	945
Jason Jocham and Larry Robinson - for the Applicant	
Direct Examination By Ms. Grabel	947

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	--
TEP-2	Map of Proposed Project	21	--
TEP-3	Testimony of Clark Bryner	52	--
TEP-4	Testimony of Chris Lindsey	54	--
TEP-5	Testimony of Erik Bakken	57	--

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-6	Testimony Summary of Larry Robinson	386	--
TEP-7	Testimony Summary of Jason Jocham	948	--
TEP-8	Witness Presentation	49	--
TEP-9	TEP Ten-Year Plans	58	--
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	--
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	--
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	--
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	--
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	--
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	--
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	--
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	--
TEP-10	Exhibits Regarding Notice Requirements	58	--
TEP-10A	Notice of Hearing	58	--
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	--

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	--
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	--
TEP-10E	Map of Notice of Hearing Sign Locations	58	--
TEP-10F	Photographs of Sign Placement	58	--
TEP-10G	Example of Sign Contents	58	--
TEP-10H	Notice of Service to Affected Jurisdictions	58	--
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	--
TEP-11	Receipt of Filing Fee	58	--
TEP-13	Tour Itinerary/Script/Protocol	254	--
TEP-14	Summary of Public Outreach	929	--
TEP-16	Undergrounding Presentation	950	--
TEP-17	Undergrounding Cost Analysis Study	948	--
TEP-20	Additional Project Comments	929	--
TEP-21	Letter of Support from University of Arizona	368	--
TEP-22	Letter of Support from Tucson Metro Chamber	930	--

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INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-23	Letter of Support from Southern Arizona Leadership Council	931	--
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	--
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	--
TEP-26	Gateway Corridor Zone Overlay Map	872	--
TEP-27	National Grid Report re Undergrounding high voltage electricity transmission lines	1035	--
TEP-28	City of Tucson Chicanes Examples	936	--
TEP-30	Supplemental Undergrounding Cost Analysis	1012	--
BUMCT-1	Testimony Summary of Mark Barkenbush	37	--
BUMCT-2	Witness Presentation	37	--
UAZ-21	TEP-City of Tucson Franchise Agreement	1011	--

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:07 a.m. on July 12, 2024.

BEFORE: ADAM STAFFORD, Chairman
GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
DAVID FRENCH, Arizona Department of Water Resources
(via videoconference)
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns
(via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public
DAVE RICHINS, General Public
JOHN GOLD, General Public

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CHMN STAFFORD: All right. Let's go back on the record.

Ms. Grabel, I believe we're picking back up with the route comparison summaries.

MS. GRABEL: Yes. That's true, Mr. Chairman.

And before we begin, we did promise the Committee to have today the narrowing of the corridors along the preferred route. I have that in my inbox. I haven't had a chance to study it. So if you'd give us the weekend, we'll give it to you on Monday.

CHMN STAFFORD: That's fine.

MS. GRABEL: Okay. Thank you.

CLARK BRYNER AND LARRY ROBINSON (cont.), called as witnesses as a panel on behalf of Applicant, having been affirmed or sworn and/or previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

REDIRECT EXAMINATION

BY MS. GRABEL:

Q. All right. Mr. Bryner, please take it away with the route summaries. I think this is starting on page 200 of TEP-8.

A. (Mr. Bryner) Yes. All right. Good morning, Chairman, Members of the Committee. Good to see you again.

So just a quick recap of the overview of the routes we went over both together in the hearing as well as out in the field yesterday.

So between DeMoss Petrie and Vine we had the four different route alternatives A, B, C, and D. Let me just orient you to the way the table is set up.

So you have on the left-hand side you have each of the routes. Across the top you have a number of different categories. Each of these categories are basically the categories that distinguish the major factors that -- between -- or some of the major factors that distinguish each of those routes one from another.

So you have total cost. Again, that total cost is inclusive of everything, the engineering, construction, materials, right-of-way acquisition, environmental, as well as if we needed to underground any overhead -- existing overhead lines or communications.

The route length, I think that's pretty self-explanatory.

Residential, what that means is the amount of distance that particular route travels through an area of predominantly residential land use.

The low-income residential, that again is the linear length, but that particular route runs through areas of low income within a predominantly residential land use area.

Historic districts, the linear length of that particular route runs through areas that are designated as historic districts on the National Register of Historic Places.

And then existing overhead utilities, what that is is a percentage of the route that goes where there are existing overhead utilities today.

Overhead distribution to be undergrounded, that's the circuit miles that that route would -- if that route were selected, that would be placed underground.

And the overhead communication to be underground/relocated, that's the miles of communication wires that would be moved underground or relocated if that route were selected.

Would you like me to go through and highlight a comparison of one route to another, or are you okay with that explanation interpreting the table yourselves?

CHMN STAFFORD: I think the members might have some questions.

MR. BRYNER: Okay.

CHMN STAFFORD: Member Hill, did you have

questions on this portion of the route?

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: I just have one question.

Just confirming that route -- oh, excuse me, Grant -- because there's a lot of color on that just confirming that Grant is not a Gateway Corridor Zone?

MR. BRYNER: That's correct. Grant is not a Gateway Corridor Zone.

MEMBER RICHINS: Okay.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm assuming that the number of miles of overhead communication wires to be undergrounded is way more than the whole route length because there's, like, multiple communication cables on each line or each --

MR. BRYNER: Yes, that's correct. As you saw yesterday, sometimes you had two, three, five.

CHMN STAFFORD: Any other questions, Members?

Are we ready to move to the --

MR. BRYNER: We can go to Slide 201 and --

CHMN STAFFORD: Yeah, the numerical sections now.

MR. BRYNER: So, yeah, so Slide 201 of TEP-8, these are the six different route segments between the Kino Substation and the Vine Substation.

Again, the same explanation of how to interpret this route is true here.

One thing that Mr. Robinson just pointed out to me is just to clarify, if I misstated on the cost, that does not include costs to place the communication wires underground. That's just -- that would be the costs associated with TEP moving our infrastructure underground.

CHMN STAFFORD: Well, wouldn't the owners of those lines pay for the cost of that?

MR. BRYNER: Correct.

CHMN STAFFORD: I think I recall yesterday some might because it depends on the terms of their license or agreement with you guys.

MR. BRYNER: That's correct. But that's more of an exception.

CHMN STAFFORD: Okay. Member Drago.

MEMBER DRAGO: Yeah, good morning, Mr. Bryner.

You'd mentioned the other utilities that would go underground. Is there any reluctance for them to build aboveground poles and say I'm not going

underground?

MR. BRYNER: I don't have any experience with that. Maybe Mr. Robinson does.

MR. ROBINSON: I don't actually. Our joint use agreements are managed by a different area. So I can't answer that question.

MEMBER DRAGO: Okay. No problem. Thank you.

BY MS. GRABEL:

Q. Mr. Bryner, is there anything more in this portion of presentation?

A. (Mr. Bryner) Maybe I can do just one quick reminder looking at the map that we have up on the right-hand screen. Just a quick reminder of what we're seeing right here. These are in the -- these little gray worms, those are the Gateway Corridors.

So that was pertinent to Oracle, Campbell Road -- or, sorry, Campbell Avenue and Kino Parkway and Broadway Boulevard. And the other things that you're seeing right here in the left tilting crosshatch, that's the University Area Plan.

I know there was a question about seeing the completeness of that, so it's Broadway, Country Club, Grant Road, and Stone Avenue. And then also set with inside that you see the crosshatched area, that's the Sam

Hughes Neighborhood Plan. And so those are the specific plans and ordinances that have language specific to the location of utilities.

Q. And, Mr. Bryner, is this Exhibit TEP-26 that you're referring to right now?

A. (Mr. Bryner) Yes, it is.

Q. And was this map prepared by you or under your direction and control?

A. (Mr. Bryner) Yes, it was.

Q. And I think it might be helpful for the Committee Members if the Gateway Corridor requires TEP to construct belowground, which routes would require a finding by this Committee to allow the aboveground construction?

A. (Mr. Bryner) So as we've stated before, we believe that the special exception process provided through the UDC would allow us to build overhead for the perpendicular crossings.

But we would need a finding from the Committee to allow overhead construction for Routes D and 6 on this northern portion of Campbell Avenue and for Route 1 from Campbell Avenue from essentially Ring Road south to just a little bit south of Broadway. And we would need it on Route 2 for the -- about a quarter mile where we would parallel Broadway Boulevard.

Q. Thank you. And if the University Area Plan is found to require TEP to go belowground, which routes would require a finding by this Committee in order to construct them aboveground?

A. (Mr. Bryner) We would need a finding from the Committee for every one of our route alternative segments.

Q. Okay. Thank you very much.

MR. DEMPSEY: I have a question -- go ahead -- if I'm allowed.

CHMN STAFFORD: One second. So say that again. It's the University Area Plan?

MS. GRABEL: Correct.

CHMN STAFFORD: All right.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I have a question. Your preferred Route B-4 total cost 22.3 million, I just added the two numbers together, the most direct route that requires the least amount of undergrounding is D-1, which is 20.3 million. But that goes almost entirely on a -- the something corridor on Campbell Avenue?

MR. BRYNER: Correct.

MEMBER GOLD: Yesterday I saw power lines on Campbell Avenue; is that correct?

MR. BRYNER: Yes, that's correct.

MEMBER GOLD: Then I have to wait for the City to come in where I can ask them why?

MR. BRYNER: I think that asking the City that question would be more appropriate.

MEMBER GOLD: Thank you.

CHMN STAFFORD: Thank you, Member Gold.

So this is the end of this panel, right, Ms. Grabel?

MS. GRABEL: Yes, it is.

CHMN STAFFORD: Okay. So --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Oh, one second. So then I believe they haven't been crossed yet, right?

MS. GRABEL: That's correct.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Apologies for interrupting you. I was just going to mention that I have a few questions from the second half of the tour yesterday as we were driving around.

CHMN STAFFORD: Okay. Go ahead.

And then after you get done, unless the members have other questions, we'll allow the parties to cross-examine the witnesses.

MR. DEMPSEY: Well, that's what my question

is related to as well, the route, the stuff from yesterday.

CHMN STAFFORD: Okay. Thank you.

Member Little.

MEMBER LITTLE: First of all, I noticed that there are on the routes that have the 46kV overhead, there are some that have transformers on the poles, and then from those transformers the lines go down some direct service, some just someplace else I assume.

I realize that it may be on a case-by-case basis, but in general, where would the pad-mounted transformers be located when those poles are removed?

And then from those pad mounted transformers, I want to confirm that TEP would run underground to a customer's property line?

Maybe just clarify all of that, please, for me.

MR. ROBINSON: Yes. Thanks, Member Little.

So normally what we would do for our underground system our pad-mounted equipment is regularly set within an easement on private property. So the underground would be in road right-of-way and then swing in to a piece of pad-mounted equipment that's set on private property easement just off from the road right-of-way.

MEMBER LITTLE: Okay.

MR. ROBINSON: And so to answer the question about the secondary wire, right, as we talked a little about before depending on the designers' need where the services are going from and to, we'll put that underground service either to a riser pole, and you saw some small, short poles out there with secondary on them, and come up the riser pole to feed the customer, or we'll run that underground service directly to the customer's panel that are along the roadways that had transformers on those poles, right. We would have a transformer pad mounted on the ground near or at that location.

MEMBER LITTLE: Okay. That's what I thought. I just wanted to confirm that.

So the fact that at present there are some services to customers that come directly from the poles that are existing that will be removed, you will not have a need to put another tall pole in place of the one you're removing in order to provide that service entrance?

MR. ROBINSON: That's correct. The service entrance is I want to say a 20-foot pole aboveground and very small in diameter.

MEMBER LITTLE: And for the most part it seemed to me as we were driving around that those poles

if people don't want it underground to their homes go down alleyways, right-of-ways, and backyards, not on the main road that we have concern with at this point.

MR. ROBINSON: Yes. Most of the utility infrastructure runs on the back lot line along an alleyway in these areas.

MEMBER LITTLE: Great. Okay.

I guess my only other question because one of them was answered is for Route 3, down where we drove past the wash -- I can't remember the name of that wash.

MR. BRYNER: Arroyo Chico?

MEMBER LITTLE: Yeah.

Are we proposing or are you proposing that the new line would go in the wash?

MR. BRYNER: Do you want to take it?

MR. ROBINSON: Yes. So that's an area where we need to do floodplain analysis, but the current route would be within the wash parameters designed to withstand floodplain loads.

MEMBER LITTLE: Thank you.

I think that's all I that had, Mr. Chairman. Thank you.

CHMN STAFFORD: Thank you.

MEMBER HILL: Mr. Chair, I had a question about yesterday's tour too.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: In some of the residential areas that we traversed and we looked at sites, because some of these neighborhoods are a little bit older there's also some fairly mature trees. I hesitate to call them stray trees because I don't think they were designed that way, but some of them are along the street.

Can you talk a little bit about -- and I just want to say, you know, with climate change, with cities and towns kind of heating up in future scenarios, those big trees are kind of important to folks for cooling and other things.

Can you talk a little bit about how TEP will approach neighborhood trees and vegetation in these corridors and how you'll manage for that?

Because you're working so hard to make sure that these new lines aren't towering over neighborhoods, but then it might be hard to maintain trees and vegetation underneath there, so can you talk a little bit about your approach to that?

MR. BRYNER: Sure. I'll share really quick, but then I want to have Mr. Robinson speak to that because he's got a lot more experience on that.

But I assume you're speaking -- well, what comes to my mind is along Adams Street there's some large

pine trees, and we talked even in the fly through you could see the wires actually go through the pine trees. So there are clearly places where we would have to remove vegetation. But I'll let Mr. Robinson talk about our practices with respect to that.

MR. ROBINSON: Yeah, that's correct. Overhead power lines, both distribution and transmission line voltages, are not compatible with tree growth, right. And so it is one of the -- actually, one of the major maintenance items and expenses is managing vegetation.

There are some significant trees, those Aleppo pines come to mind along Adams Street, that will either need to be cut back significantly or relocated -- not relocated but removed and replanted.

That's what we'll often do if we have to take out some major trees is work with the customer and give them two or three or four trees for every tree that we remove, planted where they would like them, but that aren't in conflict with our facilities.

MEMBER HILL: Okay. That's helpful. Thank you.

MEMBER FRENCH: Mr. Chairman.

CHMN STAFFORD: Yes, Member French.

MEMBER FRENCH: Yeah. I have one question

with the route tour. For reference, the narration I'm going to speak about is included on the map 10 tour narration.

Mr. Bryner, you spoke about the collocation of 46kV lines and the proposed route along Route 3 on Highland Avenue temporarily collocated. So will this temporary collocation impact the overall height of the structures, and are there any other examples of this temporary collocation?

MR. BRYNER: So, Member French, the -- I'm trying to think of how to answer this. So the temporary collocation would result in a double circuit structure. So you'd have the 46kV on one side of the structure, the 138kV on the other side of the structure. And so an example of that would be it would be very similar to what we saw on 36th Street near the Kino Substation.

Now, we didn't have the insulators for the second circuit, but it would be similar to that. And when we were able to retire the 46kV circuit, once we had transferred all of our electrical connections over and we were able to retire those 46kV substations, then we would be able to remove that wire, and it would look, again, similar to the 138kV structures on the south side of 36th Street that we saw going into the Kino Substation.

Does that answer your question or not?

MEMBER FRENCH: Yes, I believe it does. Thank you.

MR. BRYNER: Mr. Robinson was just telling me that we would have other places where we would do that like along Euclid, but there's various places where we would not be able to retire the 46kV before installing the 138, so we would have some temporary collocations with the 46kV. But the ultimate configuration would be the single circuit.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: It's not on this partial chart, but on the whole chart, the large chart on our placemats, you have a category called constructability.

MR. BRYNER: That is correct.

MEMBER GOLD: Am I to assume that the lower the number on constructability the easier it is and the quicker it is to construct?

MR. BRYNER: That's correct. And that holds true for all of those categories. The No. 1 means that's our best route. No. 6 means it's our worst route for that category. And the others are somewhere in between.

MEMBER GOLD: And the estimated total cost, the same thing, the lower the cost the better?

MR. BRYNER: Correct.

MEMBER GOLD: Thank you.

CHMN STAFFORD: Any other questions from members?

MS. GRABEL: Mr. Chairman, I have one quick question for Mr. Bryner.

CHMN STAFFORD: Please proceed.

MS. GRABEL: Thank you.

BY MS. GRABEL:

Q. Mr. Bryner, just to give Member Little a little bit of visual demonstration for what it would look to build the transmission line over the Arroyo Chico potential floodplain that you were talking about, could those key observation points be found in TEP-1 Exhibit G-3 KOP No. 8?

A. (Mr. Bryner) Just a second.

Q. It's on pages 28 through 31.

A. (Mr. Bryner) I guess you're right, but I wanted --

Q. Okay.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: For Mr. Bryner, this is -- as we were driving west on Speedway at the intersection with Euclid we caught a stoplight, and I looked out the

window, and there was the city stoplight post or whatever structure I guess is the proper name, and I noticed on it a whole lot of what appeared to be remnant double-faced tape.

And I recall having driven the same route quite a number of times that during the term oftentimes there's posters and buy this and vote this and such on these. And that prompted me to think about graffiti on your structures.

And so that's a long lead-in, but I'd like to hear how TEP manages graffiti. And we've been introduced to three different colors of posts -- of structures of the COR-TEN, the stainless or aluminum, and the painted ones.

Could you just kick that around for me a bit.

MR. BRYNER: Sure. So, Member Kryder, to address your question, yes, we have the three different pole finishes. All three pole finishes are subject to graffiti. Our current practice with respect to graffiti remediation is we will identify it either through our inspections that there's a problem or we'll have members of the public report that we have graffiti.

And then we have a team that will go out. Typically what they'll do is they'll go out and paint

over that graffiti regardless of the pole finish. There are a number of instances where you'll go around town and you might see paint over these that has -- does not match the poles at all. That's not typically TEP that's done that. That's citizens that have taken it into their own hands to go and remediate that graffiti. So we try to use paint colors that match the poles better. It's not always perfect but better to try to blend in with whatever that finish is.

And your question has been brought up by many members of the public that our poles are graffiti magnets, and they would like to, you know, know what we can do to address that issue.

We've looked into, so, antigraffiti finishes on some of these poles with our pole manufacturers. For weathering steel, there's not a good solution on that. And we've tried various antigraffiti finishes on some of our other poles with mixed success.

So I'll say we don't have a great solution. We're looking into something that would work long-term for us from a maintenance standpoint. But right now what we do is we go and paint over it.

MEMBER KRYDER: Thank you very much.

Is one finish easier to maintain than the other?

I thought I heard you say that COR-TEN was absolutely difficult. Did I hear that right?

MR. BRYNER: Are we talking about graffiti when graffiti occurs?

MEMBER KRYDER: Yes. A graffiti or posting of signs, double-faced tape, fill in the blank. Some sort of signage that is not yours but it gets posted on your poles.

MR. BRYNER: I think from an overall standpoint they're fairly similar. What we do to remediate graffiti is the same regardless of the finish.

When I mentioned the COR-TEN or the weathering steel, that was with respect to putting an antigraffiti finish on the pole because of the way the pole is finished and -- or the patina -- and I'm terrible with this, but it doesn't lend itself to adding an antirepellant, if you will, on that finish.

MEMBER KRYDER: Yes. By design COR-TEN is not to be painted.

But kind of along the same line, when we came out of I think the Vine tentative substation, I noticed a pole, and I've forgotten the exact street, but it was kind of when we came out and came around the corner, one that was all painted yellow or appeared to be yellow is now that is a resident that got cranky about

this and painted over it, or is that something that the pole weathers to that color, or is that a pole that was painted? Just give me any information that you happen to know about that.

MR. BRYNER: So that pole -- I know exactly the pole you're speaking of. That wasn't a good citizen going out there and trying to paint it. That was a pole that was painted in the Mojave sage color, and over time it has weathered, changed from one color to another, and that's sort of where it lands is that yellowishy color. And then you saw that pole is peeling badly and then starting to rust. That's sort of the life cycle of the painted pole.

MEMBER KRYDER: What's the approximate cost back of the envelope to repaint a pole?

And how often do you in -- this particular example how often would you have to repaint it?

Is that once ten years, once 20 years, or how is that?

MR. BRYNER: I'll let Mr. Robinson take it.

MR. ROBINSON: So, Member Kryder, we normally paint -- we normally paint -- depending on the number of poles we bring in to get painted all at once, there's a little bit of economy of scale depending on the number of poles we get painted.

But it's normally somewhere between 15 to $25,000 per pole depending on the size of the pole and the number of poles that we're getting painted.

And roughly that repaint lasts about 20 to 25 years on a service.

14 years ago you might have noticed when we left north out of DMP and then cut across to get back to Grant as we were going around, those painted poles heading north out of the DMP substation were repainted 15 years ago. You can see they're just now starting to show through and the steel and the little bit of rust underneath. So in the next five to 10 years we'll try to get them scheduled to be painted again.

MEMBER KRYDER: When you say you have a number of them to be painted, does that mean you actually take the pole down, take it into a shop somewhere, and it's repainted there, or -- and you have to set an interim pole?

MR. ROBINSON: No. We have a specialty contractor that we take the lines out of service, and they strip the old paint off the pole, they put primer coat and rust treat any spots that need to be treated on the pole and then put a new coat of paint on top.

MEMBER KRYDER: Okay. So we're looking at a grand a pole a year basically in the scenario you

painted.

MR. ROBINSON: Yeah, that's --

MEMBER KRYDER: Pun intended. Wow. That's a lot of money.

MR. ROBINSON: It is.

MEMBER KRYDER: Cost, original cost, of the three different types that have been under discussion here, are they approximately the same, or is there a serious cost differential between one and the other?

MR. ROBINSON: So there is a differential. The weathering steel pole is the most economical material type to buy originally. I believe painted pole is the second most economical. You'd pay a premium of about 12 to $1,400 on a painted pole. And then a galvanized pole is another 3- to $5,000 on that service preparation.

MEMBER KRYDER: Thank you very much. That's very informative. I value that a lot.

CHMN STAFFORD: Thank you.

Any further questions, Ms. Grabel, or is this panel available for cross-examination?

MS. GRABEL: This panel is available for cross.

MR. BRYNER: If I could just real quick. I just -- I think we didn't -- I didn't fully get to mention the KOP No. 8 to answer Member Little's question.

That is correct, that shows the visual simulation through the Arroyo Chico Wash and us placing those poles down within the flood basin.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Ms. De Blasi.

MS. DE BLASI: Chair, Banner does not have questions for this panel.

CHMN STAFFORD: Ms. Stash, does the City of Tucson have questions for this panel?

MS. STASH: The City of Tucson has no questions. Thank you.

CHMN STAFFORD: All right. Mr. Dempsey.

MR. DEMPSEY: I just have a couple.

RECROSS-EXAMINATION

BY MR. DEMPSEY:

Q. I guess we'll start from yesterday.

So you mentioned that to underground the distribution you need two six-inch conduits, right? And then potentially more if the communications providers want to add their stuff.

What's the depth and the width of that trench?

A. (Mr. Robinson) So in clarification, it depends on the feeder or in answer yesterday I said one six-inch with a spare is what we normally put in.

Q. Right.

A. (Mr. Robinson) So it's two. But that would be for feeder.

The trench width is usually dug about two feet wide because you have -- because that's kind of the minimum width of the trench because you have to get down and place the conduit and do any trench work on the bottom of the trench to prepare for backfilling.

In addition to that, the depth -- the minimum depth is 42 inches in depth. That's our minimum burial depth.

Q. What are the maximums?

A. (Mr. Robinson) There are some settings depending on topographical features and things like that that can get well over 10 to 12 feet deep depending on what other underground conflicts or other topographical features you're trying to go around.

Q. And how about maximum width?

A. (Mr. Robinson) For distribution, this is average. I wouldn't be able to tell you the maximum we have on our system, but maximum normally would be like a three-foot-wide trench so we could put four conduits in a duct bank. That's generally speaking the maximum width.

Q. So if I hear you correctly, minimum is two feet wide, maximum is four-ish?

A. (Mr. Robinson) At maximum, yeah.
Q. Thanks.
So I actually then have a question about this for you, Clark, I guess.
So the preferred route is 4-B; right? Am I remembering that correctly, 4-B?
A. (Mr. Bryner) That's correct, we call it B-4, but same thing.
Q. B-4. So you have up here -- this is Slide 201. You have up here that Route 4 only adds 0.5 miles of historic. That's just districts? Because to me that seems very small relative to the historic preservation zones and all the -- what is that?
A. (Mr. Bryner) So the historic districts are just the districts that are listed on the National Register of Historic Places, whereas the historic preservation zone is a local ordinance.
Q. And you don't have that listed anywhere on these tables?
A. (Mr. Bryner) Not on these tables.
Q. Well, it's fair to say it's a lot more than a half a mile or more than a half a mile?
A. (Mr. Bryner) I would have to look.
Q. Okay. That's it. Thank you.
CHMN STAFFORD: Any additional questions

from members?

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I have notes that I took, and now I need to find it, of course, that during when we were reviewing all the routes in depth here in the room, there was a number given for the number of miles of overhead lines that had been installed by TEP after the adoption of the City of Tucson zoning regulations that have to do with overhead, and I have it written down, but I have to find it.

Where are those installations and how was permission obtained?

A. (Mr. Bryner) So, Member Little, I have a map that shows all those installations. It's not an exhibit today. We could make it an exhibit if that was of interest. I could try to point those out based off of my map, but to answer -- I can answer the where.

To answer the how permission was obtained, think would be pretty involved, and maybe that would be a good discussion with the City.

MEMBER LITTLE: Okay. I'm just wondering if there were exceptions granted or --

MR. BRYNER: Okay. No.

MEMBER LITTLE: Okay. I would like more

information about that. Thank you.

MR. ROBINSON: Member Little, can I just add a little bit? From our perspective, we applied for a permit to put the facilities on, and we were granted a permit to build those facilities.

MEMBER LITTLE: Okay. Thank you.

CHMN STAFFORD: All right. Ms. Grabel, are you ready for your next panel?

MS. GRABEL: I actually have two quick redirects for Mr. Robinson. And then I'm ready for my next panel.

CHMN STAFFORD: Please proceed.

MS. GRABEL: Thank you.

REDIRECT EXAMINATION

BY MS. GRABEL:

Q. Mr. Dempsey was asking you about the minimum/maximum average width of undergrounding distribution utilities; do you recall that?

A. (Mr. Robinson) Yes.

Q. Have you done any analysis of the anticipated width and depth of the trench needed to underground the distribution facilities that are at issue with the MRP Project?

A. (Mr. Robinson) For the distribution?

Q. Correct.

A. (Mr. Robinson) We'll just supply our standard application for what that is. I have not.

Q. You have not.

Do you anticipate it's going to be more around the average than a four-foot trench?

A. (Mr. Robinson) Very much so average. The wider trenches are where we have multiple circuits in the same trench. There are occasions where we'll have more than one circuit in one trench.

Q. Would you agree that that's atypical to have more than one circuit in a trench?

A. (Mr. Robinson) Yes.

MS. GRABEL: Thank you. No further questions.

CHMN STAFFORD: Then are you ready to call your next panel?

MS. GRABEL: Sure are am. Sure are, sure am.

So, Mr. Robinson, I think you're excused from this panel. Mr. Bryner, you're forever on that panel. And this is a panel of one to talk about public outreach.

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CLARK BRYNER,

called as a witness on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. GRABEL:

Q. Please proceed.

A. Okay. I think the slides are where I want them. So on the screen on the left, Slide 203 of TEP Exhibit 8. This is the siting process that TEP followed with obviously the outcome of this siting process being the routes that we've looked at -- looked at in extensive detail as part of this proceeding and the identification of route B-4 as our preferred alternative.

So our process includes five different phases, and it was integrated and driven by data that was based on public and stakeholder input.

So the stars on the process indicate where we in particular where we sought that stakeholder and public input. And during phase one of the process, we actually -- we actually held two -- two public outreach efforts during that phase.

And I'm going to walk you through briefly this

process.

So, first of all, so now we're going on to Slide 204 we started off by identifying a study area. So it was based on the end points of the project, which we've discussed already is the DeMoss Petrie Substation, the Vine Substation, and the Kino Substation.

And then we looked at a high level at any opportunities in between those.

As a result we landed on the study area that was bounded on the north by Fort Lowell Road on the east, by Country Club Road on the south, by 16th Street on the west, by 4th Avenue and roughly I-10.

So the study area, it really just placed the limits on where we would consider route alternatives and where we would focus our research and studies. But most importantly, it helped us target who we would reach out to to share information about the project and seek input from.

So based on the study area, we developed a notification area. And so that's shown on the same slide with the sort of blue dashed line. So that was one mile to either side of the study area. And that included an area that had -- over 100,000 homes and businesses were included within this notification area.

So that point we began our outreach process with

the public and stakeholders, and we did so in a variety of ways that are illustrated on the screen. But we had two primary intentions with this. One we wanted to make sure that we educated folks about the project, why we were doing it, how we were doing it, why it was so important, and we also wanted to seek input on community values that would influence our siting study.

So on the screen you'll see these two infographics that have lots of numbers and information about what we did, how we did it, the results of that.

And if you were to add up the various public, neighborhood, stakeholder meeting that we held, you'll see that it adds up to 52. And even after we created these graphics, we've continued to reach out and have meetings with other neighborhoods and members of the public.

So I'm going to talk about a few of the things that you saw on the infographics, but the first thing I want to point out and talk about is our project survey.

So we conducted this between August 31 and October 15 of last year. And we decided to do a survey because despite our best efforts we don't tend to get that much feedback that's helpful in siting a transmission line that is consistent with community values.

So even on a controversial project like this one, we just don't get a lot of specific feedback that gives us that guidance that's needed.

So we wanted to give folks a simple way that they could provide comments in less than a minute that would allow them to participate in a meaningful way in guiding the outcome of the project. And we were also hopeful that by doing this that we would hear from a sample of the population throughout that notification area.

And we believe that the survey was a huge success. We received almost 3,000 responses, and most importantly, we received information that was needed to develop the evaluation criteria that we would use in phase three and four of our analysis.

So the main question that we asked was regarding the criteria and what was most important for us to consider in identifying a transmission line route. So that question is on the screen, which was which criteria are most important in considering the route of the proposed transmission line for the Midtown Reliability Project, and they had the option to select two.

So from this, we learned -- and I know the writing is pretty tiny there, but the most important factor was the impact on low-income or disadvantaged

communities, which we've spoke about already, and the second most important factor was the cost of the line.

Moving over to slide -- or the right screen here, Slide 208. So this map shows where we received the responses from. You'll notice that while we certainly received more responses from the east and north sides of the notification area, we did receive some level of response from throughout the project notification and study areas.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: This is -- it's extremely impressive to me that you've got that many responses and that they're spread out so much, but that's still only 5 percent of the number of surveys that you sent out.

Is that typical that you get that few -- that low a percentage of responses to a survey?

MR. BRYNER: So I can't say if it's typical or not because this is the first time we've done a survey that we put out to everyone like this.

And I guess I failed to mention too that we e-mailed it directly to 55,000 e-mail addresses for those customers within the area that we had an e-mail for. The rest in our newsletter that we put out we put a link to the survey so that -- well, I guess a link, we put an

address to the survey in a QR code so the folks could participate that way.

I felt like it was a good response, but, yeah, to your point, it's still a fairly low percentage of everybody.

MEMBER LITTLE: I would agree with both your responses, that it is a good response, but when you look at it on a percentage basis, it's a sad statement of how many people care to respond.

MR. BRYNER: I think one other thing that I just want to point out on the map here. You look at this -- so to explain the colors on here, the yellow represents where we received a high rate of response, and then the bluish areas on the map are lower rates of response.

But if you were to overlap that with where the residents are at within this area, you'll see that the bluer areas are primarily industrial and commercial areas, and then the red and yellow areas are within the areas where you have the neighborhoods.

And, again, up in the north and east sections, that's where you have the more dense residential areas. So I think it is fairly representative of the study area.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: This shows density of responses but it doesn't reflect pro or con.

Are the majority of those con?

MR. BRYNER: My next slide -- or my next slide may answer that a little bit.

But we didn't ask do you favor the project or are you against it. We were asking about criteria to evaluate what should we consider as we're looking for transmission line routes.

MEMBER GOLD: I'll wait for your next slide.

MR. BRYNER: Okay.

MEMBER RICHINS: Mr. Chairman, I just -- statistically that is actually a very good return rate to get 5 percent. That's -- when you do most surveys you're in the 2 to 2-and-a-half percent range and response rate, especially e-mail. So this is cool to see how much outreach. And also the disbursement of it I think is really helpful in helping evaluate routing. Nice job.

MR. BRYNER: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: To reinforce what he just said, in the newspaper industry if you have an

advertisement saying -- I know I'm going back 20 years, but I'm pretty sure it's constant today, if you put in an ad say giving away free money, you would expect only a 2 percent return. And then after you actually have the prospect and they tell all their friends, then it skyrockets. You did an excellent job.

MR. BRYNER: Thank you.

Okay. So we also gave folks an opportunity to provide an open-ended response to the survey. We asked is there anything else that we should consider.

And to that people took the liberty to provide us feedback on a lot of things, both in other criteria that we considered as well as just how they felt in general about the project. And so on Slide 209 you can see the word cloud with the larger words on there representing some of the words that were repeated the most. So it doesn't take an eye chart to tell which was the most prominent feedback, and that pertained to putting the lines underground.

But as we've spoken already -- sorry, looks like --

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: When you asked for those comments and feedback, did you tell them the cost and

time it would take to underground, or are they just saying if it could happen -- thinking in their minds if it could happen instantaneously, we would like it underground.

Did you tell them what undergrounding entails?

MR. BRYNER: So at the point we conducted this survey, this was at the beginning of our second siting study. So we'd gone through this once before and the application that was prepared and then pulled.

We'd gone through -- this came on the heels of our Proposition 412, which was to modify our -- well, renew our franchise agreement with the City of Tucson to raise the funds to place it underground. So there had been I'll say a significant amount of communication with the public on undergrounding, what it entailed, what it cost, but we hadn't directly spoken in this siting effort, this renewed siting effort, about that.

MEMBER GOLD: Thank you.

MR. BRYNER: Yeah.

BY MS. GRABEL:

Q. And, Mr. Bryner, just to clarify, the underground criteria was not a factor listed in the survey sent out?

A. That's correct. And that was actually one of --

one of the questions that we received most often was, Why didn't you ask us about underground? And the reason for that was fairly simply, and this was something that also when we met with the public after this survey that we communicated very clearly to them, and that was that, Hey, Proposition 412 failed.

We've talked in here about all of the different things that we did as a company and in collaboration with the City to try to find a solution to pay for that. All of those came up fruitless, so there was no way to pay for the underground differential cost.

And on top of that, the Corporation Commission came out with their policy statement with respect to underground and its prudency or lack thereof if it wasn't for reliability or safety purposes, and so we communicated very clearly to the public that underground is not an option for this line.

Q. Thank you. Please continue.

A. So nonetheless, though, we did receive some helpful feedback to this question you'll see listed on the left-hand side of this screen on additional criteria from the public that should be considered and that, in fact, was considered in our siting study.

So another thing that you may have noticed as we've talked about these things or these lines over the

past few days is there are a lot of neighborhoods. Within the study area, within the notification area there are 62 neighborhoods.

And we felt it would be good to solicit their active involvement. So we decided to form a neighborhood advisory group. We consulted with the City of Tucson to get ideas on how we might form the group, and with that input and based on past experience, we contacted all of the active neighborhood associations, and we asked them to identify one representative from their neighborhood to participate and represent the views of the neighborhood.

And I know you've heard from several of those representatives. I know Mr. Dempsey was on that group. We've had -- I know we've got Mr. Cummins on the back who was on that group and several others that came to the public comment session on Monday evening.

Let's see. So on the screen Slide 211 right now, this shows 21 neighborhoods chose to participate in the advisory group, and they're represented with the areas that are shaded in blue on the map. So while it was roughly, you know, one-third of the neighborhoods that are formed within the study area, geographically it did represent a fairly large cross section of the study area as a whole. And with some of those larger gaps they're actually in primarily industrial areas.

So the neighborhood advisory group met four times beginning in October of last year, and our last meeting was in February of this year. And at those meetings we -- I'll provide my opinion -- we had some fairly good conversations about the community, about the values of the community, concerns of the community, how we might better communicate and educate the general public on the project and share our messages more effectively. And we workshopped different ideas on opportunities and constraints. We workshopped through our suitability assessment, the evaluation criteria.

And so, again, this group -- I know there were some comments given at the public comment session on Monday about how in the end, you know, we didn't have routes that everybody could agree on, and that was fine.

The purpose of the group wasn't to get consensus on a route, though that would have been ideal. It was to get advice on the community values to shape it and identify, Hey, we're trying to thread a needle here. What's going to be most compatible with the community's values?

And I got to say this group was awesome. They gave a lot of their time, provided a lot of really good feedback, and I know in the end, again, we -- they recognize that not everybody got exactly what they were

after, but it was a better project because of them.

We did also -- we created a group chat, a group forum on this group's IO. That was at the request of the neighborhood advisory group so that when we weren't meeting we could continue to share and exchange ideas.

So while the neighborhood advisory group was representative, meaning there was one member per neighborhood could come and represent the neighborhood as a whole, we still wanted to reach out and gain firsthand knowledge of -- from individual residents of these neighborhoods. So we extended an invitation to all neighborhoods, all of those 62 neighborhoods on multiple occasions to allow TEP to come and attend one of their regularly scheduled neighborhood meetings, or if they wanted to schedule a special meeting for us, so that we could hear their concerns and answer their questions.

So to date, 13 neighborhoods have invited us to attend, and these neighborhoods are illustrated in the map on the right, again, shaded in those blue areas. And we recently met with the leadership of the West University Neighborhood, and it sounds like they're wanting us to come and attend one of their meetings in the coming months. They only meet once a quarter, so next meeting they were going to invite us.

But in total we did meet with 199 different

residents as a result of these neighborhood listening sessions.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: On that previous slide, this is for Clark, are the numbers in parentheses then the numbers of participants?

MR. BRYNER: Yeah, that's correct. Sorry I didn't point that out.

MEMBER KRYDER: Okay. Thank you.

MR. BRYNER: Okay. So, again, so we had the neighborhood advisory group. We had the neighborhood listening sessions, and those were great, but those were sort of by invitation only to attend those.

So we wanted to make sure we had a catchall that anybody in the community could come to and learn about the project, voice their concerns and share their input.

So we did hold four public open houses, and, like I said, everybody was invited to come. And we held those in a hybrid format. Not -- not hybrid as in an online and in person, but hybrid as in we had an open house and we had a presentation.

And the meetings were -- you probably recognize this room. This is where the meetings were at.

So they were very well attended from, you know, over a hundred for a couple of them to just under a hundred for a couple of them. Which is good turnout, really good turnout.

So we did a lot of things to get the word out to people about some of these events that we were hosting and try to give them the opportunity to learn about the project. So I'm just going to go over a few of those.

So, first of all, we did -- we sent out four newsletters throughout the course of this project, plus we sent out a postcard prior to this hearing, so, I guess, five mailings in total.

But within those newsletters we included project updates, maps, links to our project web page where -- I guess I'll talk about that in a minute. I don't want to spoil that one, but these newsletters went out to over 100,000 customers and businesses everyone within our project notification area. And we did so -- they were both in English and in Spanish.

So we also placed advertisements in the newspaper where we invited all of the project open houses as well as to visit the project web page to learn more.

For the first two open houses these were only published in the Arizona Daily Star, but based on

feedback we received from all of you at a previous hearing, the last two open houses were also advertised in the AZ Bilingual so that we could try to make sure we included some of the Spanish-speaking community.

And, of course, we advertised through social media. So we placed targeted advertisements in both English and Spanish. And for the last two open houses we did engage the services of a third party, and as a result we made some changes in our campaign, which did increase the engagement with the advertisements, and you can see that, the results of those changes in the CTR, the click through rate, from the lower numbers to you can see some adjustments we made. And then we really got them up to closer to 2 percent by our last open house meeting. So I think that was well worth it.

And, in addition, to further get the word out, we placed bilingual flyers at 14 different public locations, including the University of Arizona, the City of Tucson council offices and libraries. We did this two weeks prior to our February and March public open house meetings.

And lastly, we placed bilingual signs at all major intersections. You might have seen some of these for -- those were the official hearing notification signs, but we did the same thing for our open houses in,

again, just the February and March open houses based on feedback we received from all of you on the effectiveness of who sees what and pays attention.

And we did advertise on those that refreshments would be provided just as an added incentive.

So at each open house we had a sign-in sheet, and we included an option to be included to a project e-mail list. So those who opted in were added to this list. And we also put anyone who commented on the project via e-mail or via our online comment form and provided their e-mail address on this e-mail distribution list. And then we would send out e-mails to them throughout the project.

So you can see that list grew from the beginning from our first one was 56 recipients up to 478 recipients for our last communication that we sent out regarding this hearing.

And then, of course, we had our project web page. We have a web page in both English. And we have a separate web page in Spanish where everything is translated. And we've continually updated this page. We still update it. We threw some things on there just this week.

And on the web page you can see everything

about the project from needs and benefits. You can grab any of the project newsletters, any of our outreach information. We have a project video that folks can go and watch, an interactive map that you can go and zoom in and see where the project is at in relationship to whatever is important to you. And through the project web page there was also all the ways that you could comment on the project.

So I know we've talked about this a little bit. But I just want to mention here briefly we did have that change with the 46kV lines that we had identified as opportunities, thought we could utilize those and then late in the project found that wasn't going to be a viable option. So those were on between Lester -- well, just north of Lester Street, just north of Adams Street, and just north of 7th Street.

And so as a result of that, we did put in our newsletter once we learned about that our newsletter that went out to 100,000 folks, we identified that clearly in there, that change.

But in the event that people threw away their mail, we wanted to make sure that folks that were going to be directly affected by this knew about it. So on those streets we went and we placed door hangers on every home or business in that area so that they had

every opportunity to be made aware of this sort of eleventh hour change.

Okay. So apart from everything we did to engage with the public, we also wanted to seek input from stakeholders and local agencies who had jurisdiction within the area. And for that, we held four meetings that we call agency briefings where we informed these groups about the project and we provided project updates, but we also sought their feedback so we could understand their concerns, and they could provide us with input on any challenges that we may face as part of the project.

And these meetings were fairly well attended. We had representatives from many departments within both Pima County and the City of Tucson as well as representatives from Banner Health, the University of Arizona, Davis-Monthan Air Force Base, DM50, which DM50 is basically a group that supports the Air Force base, Metropolitan Pima Alliance, Southern Arizona Home Builders, Southwest Gas, Tucson Airport Authority, and the Tucson Metro Chamber.

In addition to those who participated we did invite many others, but they just chose not to participate.

And we continually updated elected officials through the course of the project, and several

did request project briefings from us. So as a result we had the briefings shown on the screen with federal, state, local, and tribal elected officials or their Staff.

And several other stakeholders and groups also requested specific meetings with us. And several of these we did meet with on a number of occasions to provide updates and to hear their concerns or work through any challenges.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm just curious why was the Public Service Company of New Mexico interested?

MR. BRYNER: Did I have them listed?

MEMBER LITTLE: Well, Public Service New Mexico. I guess I read that as Public Service Company.

MR. BRYNER: No. Okay. Good question.

So it wasn't them interested in us, it was us interested in them. So one -- I think I mentioned this in my testimony, but we received a comment early on about, Hey, your line is going through historic districts, historic areas. Can you look at what other people are doing throughout the country in some of these areas to make their lines fit in?

And so that's -- we reached out to them, so

that's what that was.

MEMBER LITTLE: Thank you.

MR. BRYNER: You had me for a second. I was like I don't know why we included them.

So I know I pointed this out on a few of the slides, but we did have Spanish translation of all of our materials, everything we did. We tried to go bilingual. Our open houses we had five to six team members that were bilingual. We also had a Spanish interpreter with headphones available for our presentations and question and answer sessions at the open houses.

And as a result of that, we received one call to our Spanish phone line. We had one Spanish-speaking attendee at an open house, and we received no requests for Spanish interpretation at the open houses.

And in everything we did, open houses, neighborhood meetings, phone calls, one-on-one conversations, we were always soliciting input from the public. We asked them to submit their comments by paper, by mail, online, by e-mail, calling our phone line, leaving a message.

And as a result of that in addition to the nearly 3,000 responses we received to our project survey,

we received 423 comments or questions. And we responded to every one of these or acknowledged them if there was no response that was needed.

And as you can see from the bar chart on the right-hand screen, the most common comments were with regard to the location of the line or in support of undergrounding the line or about the historic nature of the area and the appearance of the lines.

The last thing I want to point out on the public outreach, which wasn't really our outreach, you know, we did everything we could think of and possibly do to make sure folks were aware of the project, knew what we were doing. But there was quite a bit of news coverage on the project. So that was just another way that people could be become aware of the project or learn about and be pointed to our project web page.

Okay. So now that you've seen what we did to interact with the public and stakeholders I'd just like to go briefly through the rest of the planning and siting process and show you how we took the information that we received through that outreach and public engagement process to influence the development of the routes and ultimately type of routes that were included in our application.

So as I mentioned before, we had three

different public outreach efforts, but there were really three different areas where that influenced the siting study.

So the one was on identifying opportunities and constraints, and the other two were in analysis that we conducted in phase three and phase four. I'll go over those.

So we'll start off first with Irvington opportunities. So when we began thinking about where we could put new transmission facilities, we looked for areas that, you know, appear to be good candidates. This is nothing new or different. This is what we do for all of our projects. And so we looked at linear features such as major roads which can generally accommodate the setback requirements and the space that we need for a major transmission line.

Railroads, which it's kind of subtle in there, but the railroad. You all saw it on the field tour adjacent to Aviation Highway there.

And we looked at existing infrastructure, so such as where we had our existing 46kV sub transmission lines or even places where have higher voltage lines, or if there are transmission pipelines, things like that, again, where there's linear disturbance.

And, boy, I didn't see a change there. There we go.

And then we also looked at where are the industrial land uses at. Again, a lot of folks tend to think of a transmission line as being more industrial, so it's a more similar land use.

And we looked at areas of vacant land or where there were natural linear features such as major drainages or, you know, a river, or things like that.

And these -- whoops, what was that one? Oh. This was a very tiny change. Boom.

And then we took all those and we shared them with the public and with our neighborhood advisory group, and as a result of that we did identify one additional opportunity, and that was actually on Ring Road, which was an opportunity that had been looked at in the previous siting study that didn't come over to this.

And so after that all of those became opportunities for siting the line, which didn't mean that they were the only areas that we could put a transmission line, but it was a starting point for us to begin our analysis.

So simultaneous to that effort, we were also identifying constraints. So that could be natural, manmade, or regulatory barriers that would just make it

more challenging to construct and maintain a transmission line. So that was -- included areas of high density development such as you would have seen around the University of Arizona campus or the City of Tucson's designated Gateway Corridors, which we've talked about extensively.

And then we met with the neighborhood advisory group and as well as just the public at large and identified further opportunities -- or further constraints, which included additional areas of high-density development, some environmentally sensitive areas, and roadways with more constrained rights-of-way.

And so all of those became constraints for siting the line.

CHMN STAFFORD: Mr. Bryner.

MR. BRYNER: Yeah.

CHMN STAFFORD: If you go back to the previous slide, the red oval beneath the word "Vine," what area is that?

Can you refresh my recollection?

MR. BRYNER: That is basically the Banner UMC campus as well as some of the medical facilities associated with the university.

CHMN STAFFORD: And the large oval below that, that's the actual U of A campus, then?

MR. BRYNER: Correct.

CHMN STAFFORD: Okay.

MR. BRYNER: So then we looked at all of the opportunities that we'd identified, and we reviewed them with TEP's engineering group. And just from an engineering standpoint, asked them to identify can a transmission line reasonably be constructed in this area? And if it could, it became a preliminary segment, which was then the starting point for the rest of our analysis.

If it couldn't be reasonably accommodated, it was eliminated. And so the black lines on this map represent what moved forward as our preliminary segments.

So as I mentioned, with all of our outreach one of the primary outputs we were seeking there was we wanted to develop evaluation criteria that reflected the community -- sorry, Member Hill.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: Can we just go back to the previous map?

MR. BRYNER: Yeah.

MEMBER HILL: So at this point in your planning process, you didn't take undergrounding as a constraint for your planning process? I just want to confirm -- or I want to understand how you thought about

undergrounding when you were put your constraints together.

MR. BRYNER: So let me step back one more slide. So undergrounding was never a technology that we were considering as part of a -- as a solution for this project because it was determined to not be viable. But we were considering as the constraint areas where the City had requirements for undergrounding.

MEMBER HILL: Okay. Thank you.

MR. BRYNER: Okay. So the major output, again, of the -- of our efforts to reach out or one of the major our -- or tongue twisted.

One of the major outputs of meeting with the public and our stakeholders was to develop this list of evaluation criteria that we could use throughout our siting process that reflected the values of the community, not just our values or what was required by state statute, but reflected the values of the community that we could use to objectively analyze these different preliminary segments to identify our transmission line routes.

And so this is a list of all that evaluation criteria that was used. And it's reflected on your placemat as well.

So we took that evaluation criteria and it

formed the basis for our suitability assessment, which was phase three of our siting study. So this was a first-level screening of the preliminary segments that were identified. And it didn't utilize all of that criteria at this stage.

So the suitability assessment was conducted using GIS software or geographic information systems where we look at data spatially, and it first involved creating GIS criteria models for biological resources, total environment, which included a lot of various resource data, existing and future residential land uses, historic properties and neighborhoods, noise and communication, native lands, and low-income or disadvantaged communities.

The second step was we created several composite suitability models by combining each of those criteria models and giving each a different weight based on priority.

So this resulted in five different models. We had a balanced suitability model where all of those criteria models were looked at as if they all had the same bearing. We had an environmentally preferred model where those environmental factors were given preferential weights or higher weights.

We had a cultural and historic preferred

model, a residential land use preferred model, and a public preferred model.

So the public preferred model was based on weights of each of the criteria models based on the results of that survey that we did last year. And so the impact on low-income communities was the most important criteria in that model.

We then began our suitability assessment, and we used each of these models. We ran a GIS tool to calculate the highest suitability path. So we overlaid the preliminary segments on top of these models and let the computer do its thing to identify which path had the least impact on any of these criteria.

And so we did that free rein. And then we constrained the model using the constraints that we had and said, All right, you can't go down any of these paths that cross any of those constraints. Now where's the best path? And as a result of that, we identified a number of segments that represented the most suitable paths based on those different priorities.

Lastly, we did visually compare those segments, and we used our best professional judgment to decide if there were routes that represented north, south, east, west paths that were similar to the paths that the computer picked. And if they were similar in

nature to their impacts on those various resources, then we also kept those and moved those to the next step in our analysis.

Then we went and field verified all of these to ensure that they truly were good routes that could move forward and did represent the criteria models that they were intended to, and the output of that became what we call our refined segments.

And those are represented on the slide on 240 with the orange lines, with the dashed black line representing preliminary segments that were eliminated from consideration. So as a result of the suitability assessment, we went from 460 segments we were looking at to just a little over 100 segments.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: One question, Clark. Half an hour ago or so, we saw a slide where you put door hangers on some 50 or 75 or 100 houses because the feasibility of going up an alley proved not to work from an engineering and a practical point of view.

Where within all of this -- by the way, the system that you have looks very well designed and covers all the bases. But where within this could you plow in things like that, oops, we can't go down the alley?

MR. BRYNER: So I would say that that would have been the very first-level screening that we did after identifying the opportunities where we did -- it was a high-level engineering analysis just to decide, hey, can we probably build here? And I think that was probably an oversight that we could have/should have caught at that point.

MEMBER KRYDER: No. I wasn't trying to criticize it. I was just excited about where you could find a flaw in what you'd done and then go back and remediate the flaw.

No plan -- plans by their very definition are always false. We know that because the reason we're doing the planning is we don't know what the outcome is, but we've got an idea of what we'd like it to be.

Am I correct in that?

MR. BRYNER: That's correct, Member Kryder.

And I think we do have a few fail-safes. One of those would also be field verification.

MEMBER KRYDER: Okay. Great. I commend you and your team for putting all of this together. And especially as you're presenting it here it's very graphically obvious. Even though I was sleepy and so on as a result of yesterday's trips, I think I followed it through. Thank you very much. Good job.

MR. BRYNER: Thank you. I thought you were going to as a result of me droning on for the last hour and a half.

MEMBER RICHINS: That too.

CHMN STAFFORD: So it's not just me that Mr. Bryner's dulcet tones are making drowsy.

MEMBER RICHINS: Chairman, I think this is totally unfair. This has been some of the most spectacular outreach I've ever seen at a line siting hearing.

CHMN STAFFORD: It is true and --

MEMBER RICHINS: So kudos to you, Clark.

MR. BRYNER: Thank you. It was a lot of work.

MEMBER RICHINS: Yeah, it was.

MR. BRYNER: All right. So then we move to phase four of our planning and siting process, which was our compatibility analysis.

So at this level we did very detailed analysis. And this is where, again, as part of this we did find that it wasn't going to work to go down the alleyways.

So I think that's something we can -- I know you weren't meaning to be critical, but I think that we should be a little more careful on some of those

earlier phases to ensure we catch some of those things earlier on.

But this -- the planning process did find -- did find it, just not as early as we would have liked.

MEMBER KRYDER: I just wanted to thank you again. Having gone through a couple of these myself in a variety of situations, I truly value what you've done here, Clark. Good job.

MR. BRYNER: Thank you. So as part of the compatibility analysis, this -- at this stage we did take into consideration all of those evaluation criteria that were identified through our public outreach process, and we used experts on each of those criteria to evaluate the compatibility of -- they weren't routes at this point, they were just our refined segments, evaluate the compatibility of those refined segments to each of the evaluation criteria.

And so we had wildlife biologists, archaeologists, transmission line engineers, planners coming in and looking at this and evaluating that.

Some of it was very easy, basically a desktop exercise. Some of it was much more extensive. And as a result of that analysis, we eliminated additional refined segments, and that resulted in really

what became the alternative route segments that were in our application.

And so you can see in the slide on the right, Slide 242, all of the -- and the dark lines are what were the alternative route segments. At this point we didn't have alternative routes identified or we didn't have a preferred route identified.

We did bisect these into the alternative route segments that you have now, the four between DeMoss Petrie and Vine and the six between Vine and Kino. But we wanted to take this and get one more level of feedback from the public before we identified what would become our preferred route.

And so we reached out to the neighborhood advisory group and the public one last time. And so public input was one of the many factors that we considered. It did play a fairly substantial role in the selection of our preferred route.

And so the results of that look like the map that's on the screen, look like the map that's on your placemat where we identified Route B and Route 4 as our preferred routes. Oh, wow, that's it.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Just a comment. Amazing.

MR. BRYNER: Thank you.

BY MS. GRABEL:

Q. So. Mr. Bryner, before I turn you over for cross-examination, I would like to enter a couple of exhibits because I think this is probably a good time to do that.

And that is first if you'll look at TEP-14, that's a summary of TEP's strategic outreach plan for the Midtown Reliability; is that correct?

A. Yes, it is.

Q. Was TEP-14 prepared by you or under your direction and control?

A. Yes.

Q. Are the contents of TEP-14 true and correct to the best of your knowledge?

A. Yes.

Q. And then we have late-filed exhibits that should -- the committee members should have in front of them. One is Exhibit TEP-20, which is entitled additional project comments.

Do you have that?

A. Yes.

Q. And what does this exhibit contain?

A. And these are comments that we've received to our -- either through our project e-mail address or

through the online comment form or other means since we filed our application.

Q. Thank you.

And were these comments compiled by you?

A. Yes.

Q. Thank you. And Exhibit TEP-21 which is an exhibit titled, "Letter of Support From University of Arizona." Is that correct?

A. Yes.

Q. Have you seen this document before?

A. Yes.

Q. Can you describe generally what the University of Arizona says about this project?

A. In general, it's a letter of support for the project. They don't provide any specific preference for one route or another.

Q. Thank you.

And if you'll turn to TEP-22, which is entitled, "Letter of Support From Tucson Metro Chamber."

A. Okay.

Q. Have you seen this document before?

A. Yes.

Q. Can you generally describe what the Tucson Metro Chamber says regarding this project?

A. So also a letter of support for the project and

really specifically with respect to the purpose and need for the project and the impact of having a reliable, robust transmission system does on the economic prosperity of the area.

Q. Thank you very much.

And if you'll look at Exhibit TEP-23, which is entitled, "Letter of Support From Southern Arizona Leadership Council."

A. Okay.

Q. Have you seen this document before?

A. Yes.

Q. Can you describe generally what the Southern Arizona Leadership Counsel says about the Midtown Reliability Project?

A. Again, a very similar letter providing support for the project and the need of the project.

Q. Okay. Great. Thank you.

MS. GRABEL: I have no further questions for Mr. Bryner. He's open for cross-examination.

CHMN STAFFORD: All right. We are just at or past our 90-minute mark. So I think now is a good time to take a recess to give our court reporter a break and allow her to stretch her legs. Let's take a 15-minute break. We stand in recess.

(Recess from 10:36 a.m. to 11:04 a.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. Grabel.

MS. GRABEL: Yes, Mr. Chairman.

CHMN STAFFORD: So is this panel -- is the panel of one complete? I see a number of slides left in the presentation. I'm wondering if that's going to be covered by him or you're bringing back the prior panel?

MS. GRABEL: No. Actually, this is going to be covered by Mr. Bryner. He did remind me he has some conclusory remarks.

BY MS. GRABEL:

Q. The next slides -- if you'll advance one, Clark, he's going to talk to that. So let's do that now, and then we'll address the subsequent ones.

A. Yeah, thank you. So I just wanted to make sure before we conclude that I had an opportunity just to put this on record, because, as we met with members of the public throughout the past months, there were a number of commitments that TEP made as far as design considerations, so I want to make sure that they're made official and not just words we spoke in a meeting.

So I've got them listed out on the left-hand side of Slide 245. But we've talked about many of these in some way, shape, or form already. But as part of this

project, TEP has committed to reducing the overall number of substations in this area by seven. As we mentioned, we plan to retire eight 46kV substations, and we'll add the one new substation.

We'll also be able to remove and retire all the 46kV lines that serve those substations today. So the little maps on Slide 245 show the current condition with the blue teardrops that you've seen and the blue lines that you've seen before and then our future condition with all of that being removed and retired.

Further, if the preferred route is the route that's selected, we'll place an additional 4.6 miles of existing overhead distribution lines underground, and as a result of that, 16.8 miles of communication lines would also be moved, either underground or relocated.

So while the preferred route would add eight and a half miles of lines to the area, between the 46kV line retirements moving those lower voltage lines and communication wires underground, there will be a net reduction of overhead utilities of just under 32 miles. So there will be fewer poles, fewer wires in this area.

We've also talked about as a standard TEP would typically build double circuit transmission structures, but in this case unless we have the current need because we're double circuiting one of our routes or we've got to

collocate a 46kV line with it, we will build a single circuit construction as a means of bringing the overall size of those poles down.

One of the other things that we told the public that we would look into and try to find was an antigraffiti finish. We don't have a solution for that yet. We're not done looking. We'll continue to see what we can do. We recognize that's a concern with the public. So we'll continue to look into that. Whether we'll have a solution for this project, I don't know.

And let's see, also in the survey we put out to residents, I didn't share this in my slides, but we also asked them a question do you prefer taller poles and fewer of them or shorter poles more of them? And in response to that we heard back that the folks preferred taller poles and fewer of them.

So as we've talked about, we are looking into the use of an advanced conductor, which if we're able to use that, that would result in us being able to possibly use shorter poles and fewer of them, kind of best of both worlds. So we will look into that as part of this project.

And then with respect to pole finish, we also asked a question on pole finish and the preference in that same survey. The results of that were that the

public preferred our weathering steel poles, which are our standard poles.

Now that's preferential. As we've met with different neighborhoods some neighborhoods have been adamant that, Hey, we love the weathering steel. Others, we love galvanized, we love painted.

So what we have committed to is that whatever route -- if this is approved, whatever route is approved, if it goes through a residential area, that TEP will work with that neighborhood to determine what is the right finish for them. Hopefully it's not painted.

And lastly, we received comments on what TEP could do to enhance the right-of-way. So we talked about the chicanes. There were also other ideas on, you know, could you close down a lane of traffic, put in your line, put in a multiuse path, different things like that.

So obviously these rights-of-ways are not ours. They're the City of Tucson's. But we are committed to working with the City of Tucson on whatever route is selected to see if there's opportunities that we can partner with them to add some enhancements, be it in the form of, you know, some of the things we've mentioned. Possibly art, some vegetation plantings, different things like that, so that we can try to reduce some of the impact.

I think that's the things that I wanted to make sure I shared.

Q. Well, Mr. Bryner, that was actually a good segue in to TEP-28 where I know the Committee was interested in seeing examples of chicanes. And I believe they have them in front of them already -- well, I guess Eli is about to hand them out -- examples from the City of Tucson website about what chicanes are and what they do.

I don't know if you want to briefly explain that to the Committee Members with reference to Exhibit TEP-28.

A. Well, I feel like some of the Committee Members are more well-versed on this than me, but thanks to Mr. Cummins he taught me the meaning of the word chicane, that it was an artificial narrowing.

So we know that it's a pop out, which I learned from Member Hill, that, you know, kind of narrows the lane of traffic a little bit and can -- I know within the City of Tucson they often use it for water harvesting, plantings, as well as traffic calming measures.

So as far as the transmission line is concerned, it would be an opportunity for all of that. But it would also be an opportunity to place our structures a little bit further away from some of the homes and businesses.

Q. Okay. Thank you very much.

MEMBER HILL: Mr. Chair, can I just make a comment about the chicanes?

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: The first illustration that the City provides I really want to compliment them on because it isn't just pop out, but they've actually created traffic calming and maintained a bike lane in one of the examples that you see, so I'm really thinking about complete streets and all modes of transportation, so I want to just compliment them on that particular design. That is more innovative than a lot I've seen.

MS. GRABEL: Thank you.

BY MS. GRABEL:

Q. Mr. Bryner, do you have anything further you would like to discuss on this panel?

A. I do not.

Q. Okay. If you'll advance to the next slide. Oh, you didn't want to say anything here?

A. Oh, maybe I do.

It's hard to remember what you want to say on 246 slides.

So I guess just in conclusion, I do want to just remind the Committee of the need for the project. I think we -- on day one we tried to really emphasis why we need this project, why we need this project now, why this

solution is the best solution to meet not only the needs of a growing population using more electricity than it was back in the '50s when it was designed, but also to address that aging equipment that needs to be either replaced or retired, so our proposal is to retire that equipment.

It will also meet the regulatory requirements that we need throughout this area due to other infrastructure improvements that we're making that require an additional transmission path in order to meet the growing needs of the region as a whole.

And it will result in a ton of benefits. As we've looked at the different routes that we have, we do feel that our preferred Route B-4 best balances the impacts to environmental and land use factors that the Committee considers by statute, and it also best balances the concerns and values of the community, albeit there's no perfect solution that eliminates any impacts, but we feel this finds a balance between those.

It will result in that net reduction that we discussed to the overall overhead infrastructure throughout this portion of the City, which will more than mitigate some of the visual impacts of the transmission line and further goals and policies of the City of Tucson's specific plans and ordinances that we've

discussed.

And beyond all that, this project is critical to ensuring that Tucson can continue to thrive into the future.

Q. Thank you, Mr. Bryner.

MS. GRABEL: Does the Committee have any final questions for Mr. Bryner?

CHMN STAFFORD: I have a quick question.

Which panel is going to address the remainder of Slide 247 through 262?

MS. GRABEL: I was just going to add, so we've stipulated to the admission of the compliance, the applicant's compliance with the legal requirements. 247 through 262 just kind of walk through that in mind-numbing detail.

And so unless the Committee would like to hear testimony or has questions regarding our compliance with the statutes and procedural order and regs, I recommend just skipping those 16 or so slides, 15 slides.

CHMN STAFFORD: All right. The only thing that hasn't been stipulated to was the Ten-Year Plans.

MS. GRABEL: Isn't that contained in 9, TEP-9?

CHMN STAFFORD: Oh, it is 9. That's right. I had 10 through 11, so it's 9 through 11.

MS. GRABEL: Correct.

CHMN STAFFORD: Okay. Good.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would just like to commend the applicant on the abiding by the intent as well as the rules of the Ten-Year Plan and the biennial assessment process.

They have kept the Commission Staff apprised of what their plan was from the very get-go, and it has been included in not only local system impact studies, but also regional as well as entire west regional studies, and that's what I like to see.

Thank you.

MS. GRABEL: Thank you.

MR. BRYNER: Thank you.

CHMN STAFFORD: All right. Well, is he ready for cross-examination, then?

MS. GRABEL: Yes, Mr. Chairman.

CHMN STAFFORD: All right. Ms. De Blasi.

MS. DE BLASI: Banner does not have any cross for this panel, Chairman.

CHMN STAFFORD: Ms. Stash.

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CROSS-EXAMINATION

BY MS. STASH:

Q. Hi. This is Ms. Stash for the City of Tucson.

My main question is on the slide from -- that you showed, 245, just the one that we just talked about?

When you were talking to the -- is this the -- were these the slides that you would show when you were at your community meetings, or is this a result of your community meetings?

A. So we did share a slide at least very similar to this in our last public open house that we had with the community.

Q. And so my question is what kind of -- you said that one of the -- of I understood correctly, one of the things that you -- the design elements that you were taking was that you were going to be removing where the blue lines are?

A. That's correct.

Q. Did you give the public any time line or do you have any time line today of what -- when you would suspect that those blue -- if you get your preferred route when you suspect that the blue lines would be taken down?

A. So what we've shared with the public is there's obviously a lot of work that's going to go into

reconfiguring these circuits and everything.

What we've shared with the public is it's going to take us 10 years from the time we get the transmission line and the Vine Substation to make all these improvements. Now, most of these are going to be on the distribution side, which is the below 46kV.

Q. So ten years after the completion of this project?

A. Correct.

So we've been sharing up to -- because we asked May 2027 for an in-service in 2037.

MS. STASH: Okay. Thank you. No further questions.

CHMN STAFFORD: Mr. Dempsey.

MR. DEMPSEY: Yeah, just a second.

CROSS-EXAMINATION

BY MR. DEMPSEY:

Q. I also want to compliment you guys. You've been very professional. You've been easy to talk to and work with. We just have a slight disagreement on a few spots. Other than that, you guys are great.

Can we go back to slide I think it's 246, the whatever the last slide was?

So if you undergrounded a few miles of the

transmission lines where required by law, where we believe you're required to by law, would these benefits also accrue?

A. So we would have the same benefits whether the transmission line was overhead or underground.

Q. Thank you.

Can we go to Slide 237, please?

I think it's one more. It's the constraints slide. Okay. Oh, yeah, 236, sorry.

So some of these questions are obvious answers, but I have to ask them for the record.

On this slide, you on the constraint side you put a big oval over the University of Arizona. And my understanding is you're saying the reason you put an oval over the University of Arizona is because it is high density?

A. That's correct.

Q. And that's the only reason?

A. That's correct.

Q. Thank you.

So high-density development produces constraints?

A. It produces constraints as we saw even on some of the road that we went down --

Q. Right.

A. -- where there was high-density development adjacent to it, it just makes it more challenging. It doesn't mean impossible, more challenging to find a transmission line path.

Q. Thank you.

Okay. So you just mentioned that you're going to explore using advanced conductors.

Do they cost more than nonadvanced conductors?

A. Yes.

Q. Do you know how much more?

A. I've heard numbers, but I'm -- I don't -- I don't have a number in my head, no.

Q. What numbers have you heard?

A. I can't even remember right now. Four times more expensive.

Q. Four times? Okay. Thank you.

This just came into my mind. I was trying to write it out before -- before I got asked to ask questions.

So are you familiar with the Kino Irvington project?

Were you involved in that?

A. I was not involved in that.

Q. Okay. So I guess I can't ask you questions then.

MR. DEMPSEY: Were you involved in that, Larry?

MS. GRABEL: Mr. Robinson is not on this panel, Mr. Dempsey.

MR. DEMPSEY: Sorry.

MS. GRABEL: That's okay.

MR. DEMPSEY: That's all I have. Thanks.

CHMN STAFFORD: Any redirect?

MS. GRABEL: Just one thing.

REDIRECT EXAMINATION

BY MS. GRABEL:

Q. Mr. Bryner, I believe in response to the City of Tucson you said that the distribution lines may not be undergrounded for as long as ten years.

Did you say that?

A. Yes.

Q. So I wasn't here on that day, but my understanding is that Mr. Robinson explained that they would actually be undergrounded prior to then, and it's actually the end of this project that would be completed in ten years; is that correct?

A. So that is correct.

I think in answering Ms. Stash's question, I think she was referring to the -- not just the

undergrounding of the lines that would be undergrounded into, I guess, get out of the way of the transmission line but with respect to when we'd be able to retire the 46kV facilities and remove those.

Q. Okay. So it's to the extent any of your testimony was inconsistent with what Mr. Robinson gave a couple of days ago you would defer to Mr. Robinson?

A. Yes.

Q. Okay. Thank you.

MS. GRABEL: No further questions.

CHMN STAFFORD: Any questions from members?

You can call your next panel, Ms. Grabel.

MS. GRABEL: Thank you very much.

We now call our undergrounding panel, which is panel number four.

And so Mr. Bryner will finally be excused. Yeah, he deserves a round of applause.

Mr. Jason Jocham from Sargent & Lundy will join Mr. Robinson on the undergrounding panel.

Mr. Chairman, I think Mr. -- are you ready? I think Mr. Jocham needs to be sworn in.

CHMN STAFFORD: Yes.

Do you prefer an oath or affirmation?

MR. JOCHAM: Oath.

CHMN STAFFORD: Do you affirm the testimony

you will give in this matter will be the truth, the whole truth, and nothing but the truth so help you god?

MR. JOCHAM: I do.

JASON JOCHAM AND LARRY ROBINSON,

called as witnesses as a panel on behalf of Applicant, having been affirmed or sworn and/or previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

BY MS. GRABEL:

Q. Mr. Jocham, please state your name and business address for the record.

A. (Mr. Jocham) Jason Jocham, 2 North Central, Phoenix, Arizona 85004. Sorry.

Q. You just moved into that building, didn't you?

By whom are you employed and in what capacity?

A. (Mr. Jocham) Sargent & Lundy. I'm a vice president and project director.

Q. And what is your role in this matter?

A. (Mr. Jocham) In this matter, I oversaw and reviewed the undergrounding report and cost estimate.

Q. That was prepared by your firm?

A. (Mr. Jocham) Correct.

Q. Please turn to Exhibit TEP-7, the witness summary of Jason Jocham.

A. (Mr. Jocham) Okay.

Q. Have you seen TEP-7 before?

A. (Mr. Jocham) I have.

Q. Was TEP-7 prepared by your or under your direction and control?

A. (Mr. Jocham) It was.

Q. Do you have any corrections you would like to make to TEP-7?

A. (Mr. Jocham) I do not.

Q. You were retained to provide expert testimony regarding the cost and operational differences between constructing a transmission line aboveground versus belowground; correct?

A. (Mr. Jocham) Correct.

Q. If you'll please turn to TEP-17.

A. (Mr. Jocham) Okay.

Q. Is this the report that contains your expert analysis regarding the cost of constructing and operating an underground transmission line?

A. (Mr. Jocham) It is.

Q. Was this report prepared by you or under your direction and control?

A. (Mr. Jocham) It was.

Q. Are the contents of this report true and correct to the best of your knowledge?

A. (Mr. Jocham) They are.

Q. Do you have any corrections you would like to make to TEP-17?

A. (Mr. Jocham) Not to TEP-17.

Q. Okay. What analysis did you undertake to reach the conclusions contained in this report?

A. (Mr. Jocham) Sure. Yeah. So in this particular report, we did preliminary engineering which included the use of CYMCAP, which is an industry-recognized program to determine the ampacity of underground cables.

We utilize information locally from Irvington Station and publicly available data around Tucson to help produce that report and those cost estimates. We did go out and receive vendor quoting for a lot of the major materials to support the cost estimate itself.

Q. Thank you.

You used the word "ampacity" just a few moment ago. Can you please define for the Committee what ampacity means?

A. (Mr. Jocham) Absolutely.

Yeah. So ampacity is current that can flow through the cable.

So when we talk about ampacity today, we're going to be talking about the maximum current that can flow through the cable continuously without exceeding its design temperature.

Q. Thank you.

CHMN STAFFORD: Are you saying ampacity or capacity?

MR. JOCHAM: Ampacity. A-m-p --

CHMN STAFFORD: Ampacity. Okay. Yeah, right.

MR. JOCHAM: Yeah.

BY MS. GRABEL:

Q. Okay. Thank you. If you'll please now turn to TEP-16, which is the presentation regarding the engineering and cost of constructing a transmission project belowground.

A. (Mr. Jocham) okay.

Q. Was the presentation prepared by you or under your direction and control?

A. (Mr. Jocham) It was.

Q. Are the contents of this presentation true and correct to the best of your knowledge?

A. (Mr. Jocham) They are.

Q. And do you have any corrections you would like to make to TEP-16?

A. (Mr. Jocham) I do have one correction on a slide with a mislabeled word --

Q. Okay. Do you want --

A. (Mr. Jocham) That we'll touch on when we get there. I'll make sure it's clear for the record.

Q. Thank you.

MS. GRABEL: And, I'm sorry, Jennifer, for talking over Mr. Jocham.

BY MS. GRABEL:

Q. So, Mr. Jocham, because you're retained as an expert I think it makes sense to describe to this Committee the qualifications that make you an expert on the construction of underground transmission line facilities.

A. (Mr. Jocham) Yeah. Sure. So I'll go through my background. Like I had mentioned, I'm a vice president and project director at Sargent & Lundy. S & L is a 133-year-old engineering company. We're currently ranked fourth in the power engineering field according to the engineer news record, which is a national engineering paper basically or website.

My personal experience, I have over 14 years of transmission line design experience, including overhead transmission up to 500kV and then experience in underground up to 345kV. I do have actually experience

above 500kV but not built. So this is what is present in the United States today.

My educational background, I have a civil engineering degree from Arizona State University, and I'm a licensed civil engineer in the State of Arizona.

Q. Thank you very much.

Will you please now summarize for the Committee the conclusions that you reached as described in your report regarding the cost and operational issues associated with building transmission lines belowground.

A. (Mr. Jocham) Yeah, absolutely. So initially let's talk about the differences between underground and overhead conductors.

So with underground, we are going to talk about it as a cable and not a conductor because it is a conductor wrapped in insulation, and therefore it becomes a cable. We'll talk a little bit about the -- let me talk a little bit about the cable itself.

So the cable as you can see -- whoops -- you see a copper conductor in the middle. It is then wrapped around with a semiconductive tape. You can kind of see that black right there.

From that or around that you have a shield that's placed around the cable -- or the conductor itself, excuse me.

And then the white you see here is insulation, which in this particular project is XLPE.

And then on the outside of that you have another black insulation shield, and this is to help protect the insulation against moisture intrusion, which we'll talk about is important with the life expectancy of underground cable.

Around that, you'll have a semiconductive tape. And what you can't see in the picture here very well is normally there are concentric wires wrapped around that. We'll talk a little bit about that that's used in special bonding processes to help ampacity in underground transmission, which underground distribution does have concentric neutrals as well, but they're utilized differently. And do we'll talk about the differences between the two.

Beyond that, you'll have another semiconductive tape shield around the outside of the concentric neutral. And then you'll have an additional shield for water intrusion and then the jacket on top of that.

So a lot of layers with underground conductor, a pretty complicated manufacturing process.

Whereas, your overhead conductor you can see here, there's really two layers. You see a dark and a lighter gray color. The dark color in the middle is your

steel core, which is used to support your overhead conductor. The outside is aluminum, which is used to transfer your energy or power from one point to another.

With the insulation itself, we're going to be limited to a 90-degree C operation temperature, and that's to limit the stress on the insulation, and potential damage of the insulation operating at higher temperatures will affect the insulation integrity itself, and it will start to degrade.

And so as I mentioned a few seconds ago.

Q. Mr. Jocham, can you hold on one second. So if you look at the pictures here, the underground cable versus the overhead conductor, on this slide they look like they're about the same size.

Are they the same size?

A. (Mr. Jocham) Yeah, no. They're very different in size. So for this particular project we did, like I mentioned, go out and quote a cable for this project based off of some preliminary engineering that was performed. That cable size is just shy of five inches in diameter.

Now, the overhead cable that would be utilized for this project SRP -- or, excuse me, TEP's standard ACSS conductor is about 1.16 inches in diameter. So you can see there's a pretty large discrepancy between the

two or a large difference between the two.

And we have some examples here that we can pass around. But your typical overhead conductor as you can see here is pretty thin and narrow in diameter. And this is actually a 138kV XLPE cable. This cable itself is 2500 kcmil, so it's the actual conductor in the middle is much smaller than what would be required for this project, but the insulation thickness gives a representation of kind of what you could expect for a project of this size.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Is the conduction -- the conductor portion of the underground cable and the conducting portion of the overhead cable the same diameter?

MR. JOCHAM: They are not.

MEMBER GOLD: Is that because one is copper and one is aluminum?

MR. JOCHAM: Actually the copper helps. It helps with the ampacity. If I can use an analogy to kind of describe the differences between cooling effects and how overhead works versus underground, I think it may answer your question.

So the analogy that I like to use when

talking about overhead versus underground is let's say you're ready to go to sleep at night and you're laying in bed under covers and you get really hot, what do you do? You take the covers off and you let the fan blow on you, and that cools you down. Your body is producing heat; right?

And so you can consider that very similar to an overhead conductor where out in the open air it and the wind blowing on it will dissipate the heat away from the conductor itself perfect. Whereas in underground you can assume that you're in your thermal pajamas and in a sleeping bag, and you can't get out, and so that heat is trapped, and it's much harder for it to dissipate.

And so subsequently, you use larger conductors to help reduce the amount of heat produced by the conductor itself.

And so heat is produced on a conductor when you have high levels of resistance, and the more ampacity that you try to push through a line, the more current you try to push through the line, the higher the temperature becomes because you are basically the electrons of the electricity are running into the atoms of the material that the electricity is running on.

And so when you have smaller surface area and you're trying to push a bunch of electricity through,

you get more collisions, collisions produce heat, basically, and line loss. The larger the conductor size, the less collisions, the less line loss, the less heat.

MEMBER GOLD: Okay. That's very good information. It's not what I asked, though.

MR. JOCHAM: Okay. Sorry.

MEMBER GOLD: The underground line appears to be copper colored.

MR. JOCHAM: It is copper.

MEMBER GOLD: And the overhead line is aluminum with steel core.

MR. JOCHAM: Correct.

MEMBER GOLD: For the same voltage, does the copper require less diameter than the steel and aluminum?

MR. JOCHAM: So the underground conductor will require more area because of the insulation around it because it cannot dissipate the heat.

Copper is actually less resistive than aluminum, and that's why we're using copper. It helps benefit. If we were to put aluminum in the underground for this particular situation, we would well exceed the 6,000 kcmil or actually two 6,000 kcmils cables per base.

MEMBER GOLD: Understood. So now you're answering the question I have.

MR. JOCHAM: Sorry.

MEMBER GOLD: So you're using copper underground.

MR. JOCHAM: Correct.

MEMBER GOLD: Aluminum and steel overground.

You can use a thinner -- a lesser amount of copper, but you have to use far more insulation so the thickness of the cable underground by definition of the insulation required your sleeping bag --

MR. JOCHAM: Yes.

MEMBER GOLD: -- analogy requires a much thicker cable.

MR. JOCHAM: Correct.

MEMBER GOLD: Lifespan. Copper survive -- has a better lifespan than aluminum.

MR. JOCHAM: So the lifespan of an underground conductor isn't really driven by the conductor itself. It's driven by the insulation.

And so another analogy for insulation is it depends on how you drive it. If you run it really hard, the insulation is going to break down due to the heat. And electricity wants to find inclusions or defects in the insulation. And once it finds those, it's going to break those down over time, and it's going to break down

the insulation over and over. It's called partial discharge. And the more you have partial discharge the more damage you're producing to that insulation that could potentially fail the cable.

Now, if you run it at a lower temperature, you have less risk of -- or less -- yeah, less risk of finding those inclusions or defects, and the cable could potentially last longer. So you could think about it like an engine. If you run your engine really nice and you never run it over 3,000 RPM, it's going to last a really long time, you change the oil, you take care of it. But if you use it like a drag car, your engine's not going to last very long.

MEMBER GOLD: Okay. So underground cable underground is usually, what, 68 degrees, whereas overhead can be 212, you know, however hot the sun can shine on the cables and your electricity running through can make them.

What I really want to know is lifespan.

MR. JOCHAM: Yeah. So typical lifespan recommended from EPRI, which is the Electric Power Research Institute, which is a well-known institute in the utility industry, it's a nonprofit institute for the advancement of power, they identify a 40-year lifespan on underground cable.

MEMBER GOLD: And what about overhead cable?

MR. JOCHAM: Overhead cable, that's a good question. I'll have to get back to you what EPRI says on the overhead. But typical expectancy on lifespan in an environment in Tucson could be well over 50 years into the 75, potentially 100-year range. I guess maybe --

BY MS. GRABEL:

Q. Mr. Robinson, do you know from TEP's perspective what the lifespan of your typical transmission overhead lines are?

A. (Mr. Robinson) Yeah. Our typical overhead lines last for 75 years per design. We've had some last longer than that, but most of our lines are over 50 years old right now without any conductor issues.

Q. And, Mr. Jocham, before we get to other questions, maybe the members would like to see kind of a show-and-tell with the underground cable versus the overhead distribution line just to see the differences.

A. (Mr. Jocham) Sure. Yeah, we'll pass those around. And then we also have distribution underground cable to pass around as well as an example of what that looks like.

Q. And remember I believe you testified that that example of an underground cable is smaller than what

would be at issue in this case?

A. (Mr. Jocham) Correct.

Q. By about how much?

A. (Mr. Jocham) It looks like to be about an inch smaller in diameter than what would be required for this project.

Q. Okay. Thank you.

MEMBER GOLD: So to review what you said so I understand it correctly, the lifespan of underground cable, about 20 years?

MR. JOCHAM: About 40.

MEMBER GOLD: About 40 years.

The lifespan of overhead cable can be close to 100?

MR. JOCHAM: 75.

MR. ROBINSON: Our design plan is 75 years.

MEMBER GOLD: Okay. So roughly double?

MR. JOCHAM: I think that's a fair statement.

MR. ROBINSON: Close. Yes. Yes.

MEMBER GOLD: Thank you.

MR. ROBINSON: Can I just do a quick explanation of what we have here, right?

MS. GRABEL: Sure.

MR. ROBINSON: So this is an example of our

feeder cable, which is our 600-amp cable that I've talked about in our distribution system. And this is an example of our 200-amp cable, or single-phase cable, on this side.

And then we have, as Mr. Jocham has said, a 138 cable and our overhead. I'll pass them around.

CHMN STAFFORD: Thank you.

BY MS. GRABEL:

Q. Okay. Mr. Jocham, I believe you were about to talk about how many cables you would actually need to meet the ampacity for this project.

A. (Mr. Jocham) Yeah. So, like I had mentioned, we did use a program called CYMCAP to perform an analysis to determine what the actual size of the conductors needed to be to meet the preferred ampacity requirements of this project, which were 2,256 amps.

And so from that we looked at several scenarios, which are all represented in the report TEP-17, which identify a standard duct bank embedded or buried approximately four feet underground, and then multiple scenarios such as jack and bores or trenchless installations where the cable would be deeper and then deeper duct bank installations assuming that we had to avoid existing utilities that were present within the route.

And so from that, it was determined to meet the preferred ampacity we would need two 6,000-kcmil cables per phase to meet that ampacity requirement.

So to put that in perspective, three-phase AC system you're going to have three overhead wires with -- to meet the exact same or similar ampacity requirements underground we would need six of those cables.

Q. So, Mr. Jocham, let me break this down.

First of all, why do you need two 6,000 kcmil? Is that how you pronounce it?

A. (Mr. Jocham) Yeah, kcmil.

Q. Cables?

A. (Mr. Jocham) Yeah. Let me describe what kcmil means.

So kcmil is a -- it's a circular mil, so kc -- or k is the 1,000 circular mils. It's a unit of measurement of the gauge of the wire itself. So a measurement of the gauge of the conductor.

One mil is one one-thousandth of an inch. And so a circular mil is 6,000 kcmil or 6,000 thousand circular mils is approximately 4.7 inches -- or square inches of area of conductor. Whereas a 954 cable, the overhead cable, is about .749 square inches of area.

BY MS. GRABEL:

Q. Okay. So the members are right now looking at

the cable, which is about this size. And you said you need two of those to meet the required ampacity for each project; correct?

A. (Mr. Jocham) Correct.

Q. For each phase? I believe you said that too.

A. (Mr. Jocham) For each phase.

Q. So what is the phase?

A. (Mr. Jocham) So AC systems are three-phase systems. So A, B, and C are 120, 240, and 360 or zero is how AC systems run. We would need basically two instead of one. Two of those underground conductors instead of one of the single overhead.

Q. Okay. And because the Midtown Reliability Project has three phases; correct?

A. (Mr. Jocham) Correct.

Q. So we'll see three different conductors on the overhead line?

A. (Mr. Jocham) Correct.

Q. We would have -- if we were going to have that same three phases, we'd need six of the cables for the underground line; is that correct?

A. (Mr. Jocham) Correct. At minimum.

Q. At minimum?

A. (Mr. Jocham) Yeah.

Q. So explain the "at minimum."

A. (Mr. Jocham) Yeah. So down at the bottom bullet there you'll see optional spare -- or spare, and this is the protection. It's not spare circuit. It's spare phase for reliability.

And so for the record, the statement says, "Optional spare circuit for reliability." We want it to say optional fair -- "Optional spare phase for reliability."

For reliability purposes, utilities will at times install a spare position or a spare phase. And so to install two more conductors, the terminations for those, you could basically give yourself the reliability similar to an overhead line where you didn't have to repair the faulted or damaged phase.

You could go to the spare position by transferring some overhead wire into a different position on the riser structure giving a much shorter return time if there was a problem with the underground section of the line.

Q. So, Mr. Jocham, I'm not sure you answered this question. Why do you need two 6,000 whatever they are kcmils instead of one 12,000? Why can't you just have a larger kcmil cable?

A. (Mr. Jocham) So there are manufacturing limitations. The manufacturers to date will only

manufacture up to 6,000 kcmils. So 6,000 is the largest conductor we can acquire from reputable vendors in the industry.

BY MS. GRABEL:

Q. To today's technology requires you to use a lot more cables than you otherwise might?

A. (Mr. Jocham) Yes.

Q. Okay. And just so I understand it, so you need the optional spare to meet the same reliability benefits you'd have for an overhead line; is that correct?

A. (Mr. Jocham) Similar, yes. I mean, there would still -- there's some availability in there, but, yes, for the most part to be able to transfer and immediately reenergize or reenergize in a similar time frame to what you would do with an overhead repair, yes.

Q. So how many of those larger cables would you have to install in the trench in order to get those reliability benefits?

A. (Mr. Jocham) So two more or a total of eight of them.

Q. It's a big trench?

A. (Mr. Jocham) It's a big trench.

Q. Okay. Please continue.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: One quick question.

In addition to the reliability that Meghan just spoke about are the underground cables encased then individually? Or so we've got eight of these bad boys underground running through a trench of some sort, are they encased then in --

MR. JOCHAM: Yes.

MEMBER KRYDER: Okay. Were you going to talk about the encasement as well?

MR. JOCHAM: I can talk about it now.

MEMBER KRYDER: Okay.

MR. JOCHAM: Yeah. So they're encased in -- each conductor is encased in an individual PVC pipe. So this particular situation with the larger diameter of this conductor, we're going to need an eight-inch diameter schedule 40 PVC pipe and you'll have at minimum.

So if you install the spare, you'll have eight of those. We would still very similar to the distribution install an open position just for, again, further reliability so you would have 10 eight-inch schedule 40 conduits in a duct bank encased in concrete. In addition to that there are other conduits that we would install.

One difference with underground

transmission versus underground distribution, typically underground transmission installs a distributed temperature sensing system. And that is, again, another fail-safe and protection measure to increase the reliability and the longevity of underground. It monitors the temperature of the cable to ensure that it doesn't exceed that 90 C limit. And so all of that is encased in concrete.

BY MS. GRABEL:

Q. Mr. Jocham, I believe you have photographs of that on future slides; correct?

A. (Mr. Jocham) I do have photos of it on future slides.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Is there any historic data on the percentage of time that the spare phase is actually used? Needed?

MR. JOCHAM: I particularly don't have any data on that. And as a consulting engineer in the industry, operationally utilities normally don't share that information with us. They kind of keep it in-house. So I probably would have a hard time finding that information.

MEMBER LITTLE: That's fair. Thank you.

BY MS. GRABEL:

Q. But, Mr. Jocham, do you have an anecdote that, you know, discusses an outage where the spare was used?

A. (Mr. Jocham) I have never -- we've installed multiple installed spares on the projects that we've done, but I've never heard of it actually having to be transitioned over in my career.

Ethan may. So I can discuss with my colleague and see if he has experienced that and -- after break and be able to speak on it.

MEMBER LITTLE: As a follow-up, Mr. Robinson, does TEP currently have any 138kV underground?

MR. ROBINSON: No, we do not.

MEMBER LITTLE: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: So if I understand what you just said, you said now you're taking these eight-inch PVC pipes with all this stuff inside and you're encasing it in concrete?

MR. JOCHAM: Correct.

MEMBER GOLD: You're burying it more than five feet underground?

MR. JOCHAM: Yes.

MEMBER GOLD: If you have to fix these things, that's -- I mean, you're talking demolishing a street?

MR. JOCHAM: Correct.

MEMBER GOLD: Thank you.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: One more for me at least related question. We're talking now about the 135, the transmission cables.

Is the undergrounding of the distribution cable similar in terms of just the same thing only put on a reduction diet, or is it a whole different game?

MR. JOCHAM: I would say it's a different game. I'm not as familiar with the distribution underground, so Mr. Robinson can speak on that.

But generally all the equipment, as you kind of said, would go on a diet.

But the trenches are significantly smaller. Normally you don't always encase distribution in concrete either. It's just the conduit that's placed into the ground.

MS. GRABEL: Mr. Jocham, let's let Mr. Robinson answer that question. Go ahead.

MR. ROBINSON: Yes. The distribution is

much, much easier to install because of the direct embedment, the narrower trenches, the smaller cable.

We also -- all of the materials for that are not special order items. There are many different manufacturers, and they're off the shelf from a supply chain perspective. And we have almost all of our construction line force can maintain and install underground distribution cables where we don't have any of those resources, tools, or expertise to install 138.

MEMBER KRYDER: Okay. And if I understand a little bit of that, also we've moved from three-phase. When we go into distribution, we're no longer in three-phase; correct?

MR. ROBINSON: That is not correct. We actually have a lot of three-phase distribution underground.

MEMBER KRYDER: Okay. So you would go back to eight cables just as you did overhead or --

MR. ROBINSON: Actually we wouldn't. So yesterday in the tour Mr. Dempsey asked about some of our standards.

In our feeder cable, our standard is a six-inch diameter conduit. And we would have three of those cables pulled into one conduit.

MEMBER KRYDER: Okay.

MR. ROBINSON: On the 200-amp system, which is the smaller cable that we sent around, we would have three cables pulled into a four-inch conduit.

MEMBER KRYDER: Okay. Thank you very much. That helps me with a comparison between the overhead, the transmission lines, and the distribution lines.

And a lot of what I heard the community talking about were concerns about both distribution and transmission, and there seemed always to be kind of an easy interchange between them.

But what you've just told me was that the transmission line is significantly bigger and more difficult than the distribution portion of it.

Is that fair to say?

MR. ROBINSON: So what I'm going to testify to is that we have not ever put 138kV transmission underground, so that difficulty is perceived and estimated. But Mr. Jocham has and that's what his testimony been about.

Distribution is -- distribution underground is a type of facility that we have. On a regular basis I think Mr. Bryner said almost 60 percent of our distribution system's underground. We do it and maintain it on a regular basis.

MEMBER KRYDER: Thank you. Thank you very

much.

CHMN STAFFORD: Member Mercer.

MEMBER MERCER: Yes. Thank you, Mr. Chairman.

So and we're talking about reliability and modernizing the existing grid that you have.

So it seems to me like if we have a blackout or a system failure, it would take a lot longer to fix it if it's underground. Is that -- am I right or wrong or --

MR. JOCHAM: If we did not have the spare installed, then, yes, the answer to that is yes.

MEMBER MERCER: Okay. Thank you.

BY MS. GRABEL:

Q. Even if we did have the spare installed, would you need to, you know, fix the element that went out belowground?

A. (Mr. Jocham) Yes, you would.

So with the installed spare you'd be able to transfer over and reenergize.

But during the repair periods of the failure, whether that was a termination, a splice, or the conductor itself, you would probably have to take outages during the repair process because we won't allow or typically utilities won't allow personnel in vaults with

a transmission line energized for safety purposes.

Q. And in terms of fixing a transmission line that's been undergrounded and that has been, you know, gone out of service, does TEP have the expertise in-house to make those reliability repairs?

A. (Mr. Robinson) No, we don't. We would have to contract that work out.

Q. And, in fact, do the people that install underground transmission facilities require you to use their services for maintaining the line?

A. (Mr. Jocham) I can take that.

So they definitely require initial installation. You can reach out to them for maintenance and repair, but there are other entities out there that can do repairs after the fact. But they are specialty contractors. They have to be scheduled, and it still does take time.

Q. How many special contractors are there that do that kind of work?

A. (Mr. Jocham) There are a handful. I could get an exact quantity, but it isn't significant like overhead transmission where you would have 30-plus contractors across the nation that are capable of doing that type of work. So we'll discuss with my --

Q. Are there any in Arizona that you know of?

A. (Mr. Jocham) That are -- no, not in Arizona to

work on the cable itself.

Q. And so part of bringing that line back in service would require flying somebody in to restore that line; correct?

A. (Mr. Jocham) Correct.

Q. And that adds time?

A. (Mr. Jocham) It does.

Q. Okay. Thank you. Please continue.

A. (Mr. Robinson) Ms. Grabel?

Q. Go ahead.

A. (Mr. Robinson) Can I just add from a cable manufacturing perspective? In order to maintain the warranty from the cable they do have to have certified installers to maintain the warranty of that cable.

Q. Okay. Thank you very much.

CHMN STAFFORD: Member Hill, you had a question?

MEMBER HILL: Yeah. I had a question about an outage.

So with an underground transmission line, when there's an outage it switches to the spare first, and then -- is that correct?

MR. JOCHAM: You would have to manually switch it. It doesn't automatically, but yes.

MEMBER HILL: The utility would switch to

the spare first. And then the utility would have time to assess the portion of the transmission line that caused the outage.

I want to speak to disruptions in the community around that and the neighborhood and things like that.

My understanding, having been around public works as a city council person, is that a lot of these types of facilities have vault areas where we know that we're going -- and you pick those vault areas to reduce disturbance in the neighborhood, so it's not digging up the middle of the street, but it's a vault in a place where we're reducing disturbance to traffic or other things so that we can access that conduit and identify -- because we've got temperature and sensors along the system, identify the section of conduit that's a problem and then where the problem lies.

And then you can essentially kind of pull out the cable and replace the cable and the conduit. And then you can reenergize the system and take the spare out of commission at that point.

I'm not saying that it all happens super fast, and it's a good point that Meghan has identified is the number of contractors available to do this, but I don't want the public to feel like an outage in an

underground system is any more disruptive, you know, from the neighborhood standpoint than an overhead line because you're going to have trucks coming in, and you're -- I don't know.

I'm trying to compare the two overhead under -- I feel like the utility does a really good job of reducing those disturbances in the neighborhood with the design that they select; is that correct?

MR. JOCHAM: Yeah. I would agree with that.

MEMBER HILL: OKAY.

MR. JOCHAM: You would mainly work around the vault locations after installation. The only potential risk there is if let's say you did have a fault on the cable itself and through discharge it fused the jacket to the conduit, then you have a bigger problem.

MEMBER HILL: Okay.

MR. JOCHAM: And so that isn't -- say that there wouldn't be a situation where you're digging up the duct bank and cutting in.

MEMBER HILL: Yeah.

MR. JOCHAM: But most of the time, yeah, your failures would be -- you'd be able to repair them in --

MEMBER HILL: Pull one cable out --

MR. JOCHAM: Yeah.

MEMBER HILL: -- and put the new cable in.

MR. JOCHAM: And we also part of that discussion and represented in the report is spare conduits that are installed that are open. So if let's say you did fuse a cable to the conduit, you could pull a new conductor and just leave that there as a dead cable.

MEMBER HILL: Okay. All right. Thank you.

MR. JOCHAM: So there are ways to help minimize impact, yes.

MEMBER HILL: Okay. Thanks.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: How far apart are the vaults generally?

MR. JOCHAM: Yeah. That'll depend on the cable size itself, but we assumed for this project about 1600 feet.

MEMBER LITTLE: So a quarter mile?

MR. JOCHAM: Give or take.

BY MS. GRABEL:

Q. Mr. Jocham, it might help if we continue with the presentation so you can see the various photographs so that -- it was useful to me, so I think it will useful to all of you.

A. (Mr. Jocham) Yeah, absolutely.

Q. So one other point I'd like to make. So we talked a lot about the underground conductor only being able to operate at 90 C or 100 -- sorry.

MEMBER HILL: 194 degrees Fahrenheit --

MR. JOCHAM: That's right. Yep.

MEMBER HILL: -- for us American educated -- American education system.

MR. JOCHAM: That's right. 194 degrees Fahrenheit.

The overhead conductor, the ACSS conductor normal operation of that conductor is 392 degrees Fahrenheit. So you can push a lot more power through the line, a lot more amps through the line.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I've got a conflicted question. This is probably directed to Mr. Robinson.

MEMBER KRYDER: Into your mic.

MEMBER GOLD: Directed to Mr. Robinson. I have friends in the Foothills who inherited a million-dollar house, and there was a cable blocking their view of the mountain. They had the opportunity to spend $25,000, and I may be going back 20 years, to have that section of cable put underground.

Did TEP do that or do you job that out?

MR. ROBINSON: If it was a distribution line, TEP would have done that. We often will sub out the trenching and the setting of the conduit. But the electrical cable and the terminations and all that are always done by our resources.

MEMBER GOLD: So the cable that they used would be a standard overhead cable, or would it be the underground cable?

MR. ROBINSON: It would have been one of the cable samples that we sent around. It probably would have been the 200-amp smaller cable for a regular distribution.

MEMBER GOLD: Was that the underground cable or the everyday cable?

MR. ROBINSON: Yeah, the underground. It would have been -- if it -- all underground cable has to be in that profile.

MS. GRABEL: Mr. Robinson, let's clarify. You're talking about underground distribution; correct?

MR. ROBINSON: That's correct.

MS. GRABEL: So we don't need special contractors for underground distribution, do we?

MR. ROBINSON: That's correct.

MS. GRABEL: Okay.

MR. ROBINSON: So to relocate an overhead cable to an underground cable by a residential, it would have been a distribution system request. And it would have been this smaller cable or this cable. Probably the smaller cable in a neighborhood.

MEMBER GOLD: And that's something TEP can do?

MR. ROBINSON: On a regular basis, yes.

MEMBER GOLD: Thank you.

MS. GRABEL: Thank you.

MR. JOCHAM: Okay. So we'll talk a little bit now about some of the construction differences. And I'll walk you through sort of a concept or a theoretical construction of both types of projects.

So in generality, underground is a linear construction. In this case it will be within the road. There's a significant amount of civil work required for this type of installation, which means a large amount of soil excavation, a large amount of concrete to backfill. And then the positive, though, is minimal structure, and which return -- in return is a minimized visual impact after installation is complete.

I will preface that to say during construction it's probably much more -- the underground is more intrusive. Whereas your overhead construction

you're really only constructing at the structure locations. There's less civil work, less excavation, less concrete, but at the end of the day the permanent installation has more structures, and it provides a visual impact.

And so let's walk through what an underground construction process may look like.

So for this project, we assumed approximately a five-foot-wide trench. That trench could range anywhere from five feet deep to 10 feet dependent on interferences along the road route.

You can visualize an underground installation kind of like an assembly line. So you're going to have -- on the front you're going to have a large excavator. In this particular situation due to the road you're going to have that excavator straddle the excavation or trench. Therefore, that excavator has got to be pretty big for a five-foot trench. You're looking at track widths of about 11 feet wide.

BY MS. GRABEL:

Q. Mr. Jocham, do you have a picture of those?

A. (Mr. Jocham) Yes.

Q. It would be helpful.

A. (Mr. Jocham) Here's a good example of an excavator straddling a trench.

CHMN STAFFORD: What slide is that?

MR. JOCHAM: I did not number my slides, so I apologize.

MEMBER LITTLE: It's the next one.

MR. JOCHAM: It's two after where we currently are.

BY MS. GRABEL:

Q. So, Mr. Jocham, you were on the route tour yesterday; correct?

A. (Mr. Jocham) I was.

Q. I mean, how much would a piece of equipment like that take up of a road -- a residential road such Adams or Vine?

A. (Mr. Jocham) Yeah. So on Adams or Vine it's pretty limited asphalt space, pretty limited road right-of-way up let's say 33 feet or so, 35 feet. You're looking at the excavator itself taking up half of that.

Adjacent to that excavator would come a large dump truck. That large dump truck is going to be nine feet wide and be a couple of feet away from the excavator to allow it to dump the spoils.

So on a street like Adams, you could potentially close the entire section of the road from intersection to intersection while you're doing this installation just purely by the type of equipment that you would need to

bring in.

Q. Thank you.

MEMBER HILL: Mr. Chair, just a --

CHMN STAFFORD: Member Hill.

MEMBER HILL: Just a clarification. I thought the undergrounding only applied to the Gateway Corridors. Like, Adams and Vine isn't the Gateway Corridor.

MS. GRABEL: It's the University Area Plan requires undergrounding all of the roads, and that residential area also will require undergrounding.

MEMBER HILL: Okay. Thank you. Thank you.

MR. JOCHAM: So let's talk about a street like Campbell, which has a raised median. You're looking at an 11-foot excavator that's going to take up at least a lane. You're looking at a dump truck adjacent to that that's going to take up at least a half or another lane and potentially bleed into that third lane.

There is a good chance that you're shutting down the whole side and redirecting traffic to flow in both directions on one side of the road, and probably one lane in each direction having some pretty significant impacts to traffic and to the public.

So after you've excavated, you're going to put in that same excavator that you see here. We'll put

in trench boxes to keep the workers safe. And the intent of trench boxes in this scenario is to limit the amount of excavation.

OSHA has confined space requirements. Those confined space requirements, the only way to minimize those without trench boxes is to pull the excavation back even further and give an escape route for those workers. And so trench boxes are used to keep the side walls protected and the workers safe.

One those trench boxes are installed, you will be able to -- at that point the workers will be able to go down into the excavation and install the conduits and spacers.

At that point, you would come back with cement trucks, and you would pour concrete over top of the conduits.

So to give you an idea of just the amount of heavy construction traffic that you would see in, like, let's say 100-foot stretch because as you can see here, typical installation, you can excavate about 100 feet a day is a good day in transmission line undergrounding.

You're going to see approximately one dump truck -- large dump truck, 20-cubic-yard dump truck, with a 20-foot-long bed every 15 feet of excavation. So you

could during a day see five to six trucks in a day of just dump trucks.

Concrete, those are 10-yard trucks. Do they really carry 10 yards? No. They carry more typically about eight.

So you're expected to see a cement agreement truck about every 20 -- 15 to 20 feet of the trench as well. So, again, another approximately five or so cement trucks.

In addition to that, you have flatbed trucks bringing in trench boxes. You have crew trucks. And all of this in an extremely -- what you're trying to work in is an extremely narrowed right-of-way so that you're reducing the impact to traffic. And so it's a bit of a -- it's a bit of a ballet along a linear stretch.

During -- after the concrete's poured, you're going to place a concrete plate over top of the excavation, which would allow you to move off, keep the public safe, and allow that concrete the cure.

After that dump trucks come back in with select fill. You're going to place select fill on top of the concrete duct bank, and then you would asphalt over that select fill.

Not to, I guess, put words in the City of Tucson's mouth, but based off of -- or you could have

requirements where instead of replacing or asphalting just the trench, some cities I have seen require you to asphalt the entire section of road.

So in our cost estimate, we did only assume that we're replacing the asphalt along or where the trench lies and not the entire road width. That would obviously increase the overall cost of the project. So not entirely sure what the City of Tucson would require, but we have seen cities in the past require us to repave the entire street as part of the project.

So that's a typical undergrounding.

BY MS. GRABEL:

Q. Mr. Jocham, before you continue, can you talk a little bit about the noise impact to the neighboring areas from undergrounding construction?

A. (Mr. Jocham) Yeah. So obviously with heavy equipment and heavy construction you're going to have a large -- a lot of large noises. The excavation of the asphalt itself is very loud.

Beyond that, you'll have multiple heavy pieces of equipment with running diesel engines that rumble and shake, and you have crews yelling. And these projects really don't move very quick linearly.

And so they're going to be there for days at a time. And dependent on time of year and when you would

actually be doing the work, if construction workers were working on a day like yesterday, they're going to do their tail boards at sunrise, and they're going to try to start work immediately. And so as soon as the sun comes up at six a.m. they're full speed ahead because they need to get as much work done before it gets too hot and they need to go home.

So there is going to be a large noise disturbance for an extended period of time, where typical overhead construction you may have noise disturbance for a day or so as they install the structure.

Q. And how long does it take to construct an underground transmission facility?

A. (Mr. Jocham) So an underground transmission facility kind of as identified here, typical installation is about 100 feet a day. So it's a lot longer in duration. I think we did an estimate of about four months to go a mile for underground duct bank installation. That included some cable -- it includes the cable pulling concept, the testing and commissioning and energization of the line itself.

Whereas overhead, you're looking at you can install one to two poles per day, and that's every five to 600 feet, so you could typically go about a quarter mile in a day.

Q. And is that four months calendar days?

A. (Mr. Jocham) Those are four months in calendar days, yes.

Q. Thank you.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Did I capture then four months a mile underground to four days aboveground? Is that the back of the envelope?

MR. JOCHAM: So four months per mile for underground. Full installation overhead would be one to the two months, but that includes the curing time of the foundations, which crews won't be present during that in the overhead section. So it's still called the construction window, but you're not going to have any disturbance.

BY MS. GRABEL:

Q. Mr. Jocham, before you move on, Tucson's a historically rich area.

Would you agree with that?

A. (Mr. Jocham) Yes.

Q. During excavation are there any other factors that might lead to a delay beyond that four months per mile?

A. (Mr. Jocham) Yeah, absolutely.

So you could experience cultural issues, historic findings, and that could potentially delay the project while you mitigate those findings.

I think one of the public comments was a gentleman from the City of Tucson that worked in the water department for many years, and he said you're going to find a lot in these streets.

We in the cost estimate utilize GIS data that is available from the City of Tucson to identify water lines and sewer lines. But third-party installations we had no idea. And whatever beyond that that's abandoned we also don't know.

And so, yes, that could slow the project. And if something of significance is discovered culturally or historically, it could stop the project in its tracks.

Q. So this project has an in-service date of 2027. If we are required to construct the line belowground, do you think given the time estimates you have there could be a risk that that in-service date could not be met?

A. (Mr. Jocham) I do.

Q. Thank you. Please continue.

A. (Mr. Jocham) Yeah. So, as we discussed, the underground for this is a five-foot-wide trench, five-plus feet deep, but what we haven't talked about yet are the vaults that we have to install as part of this

project.

So those vaults typically need to fit personnel, and so they're really large, 35 feet long by 10 feet wide by potentially 12 feet deep.

Those are buried in the roadway. And so they're made of concrete, and they're quite large. And so they lake large equipment to install. I do have a photo of that right here. You can -- whoops. Right here you can see a large crane installing just a section of the underground vault.

And so all of this is just to show the amount of disturbance that underground can really produce during the construction process.

Overhead your construction impacts are really limited to the structure locations, which are -- 30-by-50-foot pads are a good estimation of what disturbance you would see. And your excavations for the foundations are between four and six feet in diameter at structures, and those every, again, five to 600 feet in locations.

And as Meghan asked down at the bottom there, it's difficult for underground lines to avoid cultural, historical, or environmental obstructions. You either mitigate them or you try to reroute around them, which can prove to be very difficult. Whereas an overhead

line, they're spot locations, and so you can adjust the structures, you know, 10, 15, maybe even 50 feet to avoid those potential risks and obstructions and keep the project rolling.

Q. Thank you.

A. (Mr. Jocham) So as we had talked about, typical underground construction is about 100 feet a day. We see the amount of disruption it can cause, but what we haven't kind of talked about is it could shut down or severely restrict access to businesses, to homes for periods of days.

I think in the prior for SRP the HIP project and the agreement with the City of Chandler, they allowed 48 hours of full closure to businesses and/or residents along the route of the HIP project. And so that has significant impacts to the residents. If this did have to go down Adams or Vine, they wouldn't be able to access their homes with their vehicles.

Additional road closures would occur after the duct bank is installed and the initial traffic control is removed because you're going to have cable pulling operations. Sorry. Before that you're going to proof the conduits with a round, wooden piece of equipment that you pull through the cables to make sure that there are no -- there's no debris in the conduits and the conduits

are round so when you pull the cable through that you are ensuring that you're not going to damage the cable, the very expensive cable that we're installing.

You're going to pull the cable. You're going to have splicing. So at those vault locations you're going to have lane and road closures for the workers to go down into the vaults, perform those splices. The initial splice effort is not a quick process. It's -- at this cable size it's a very time-consuming process.

You're going to test the system after it's installed. And then at that point you'll commission it and energize it.

With overhead, you'll obviously have impacts around the areas where you're installing the structures. And then in addition to that when you're pulling wire you're going to have minor restrictions and temporary traffic restrictions while you pull the overhead wire into place. But those are typically shorter durations. Maybe a day or two.

And as we talked about with overhead, a one- to two-month per mile overall installation process.

And so now with photos. So you can see some steel plating here covering the trenches after the workers were done in that section. So you'll cover up the trenches for worker protection, but those are heavy

steel plates, and you need excavators to move them. So that excavator is really going to remain on-site during the time the trench is open.

You can see here, again, the vault here as we talked about, but one thing that we haven't really talked about yet is the size of the cables and size of the reels. We talked about the cable size itself as an individual cross section.

But this project here is a project in the southwest that S & L has done. This is a 6,000-kcmil cable, and it comes on a nine-foot-wide reel, and that reel is -- let me make sure that I get this right. That reel is 15 feet tall, and it weighs 76,000 pounds.

So to give you an idea of what that is, that's 23 Honda Accords just in that reel. Not the truck. Just the reel itself is 23 Honda Accords. Or if you like animals, it's six African elephants.

All right. To give you a concept of what an overhead reel looks, which I do have a photo of in a later slide, those overhead reels are about five feet wide and about seven and a half feet tall and only weigh about 12,000 pounds or one elephant.

Distribution underground that TEP uses, that reel is about five foot, nine inches wide and about nine feet tall and weighs about 15,000 pounds, so it's about

the same size as the overhead reel to give you a concept of the gross size difference between underground transmission and underground distribution.

You can see in the bottom right-hand corner the concrete cement trucks delivering cement to the site and pouring into the trench. Hard to see but in the shadow here, but you can see this excavator is placing those steel plates on right after the concrete is poured to protect the concrete during the curing process.

And then speaking of that large cable, this is the trailer that is required to hold that cable while it is placed underground. That trailer is an oversized trailer. It's approximately 14 feet wide. So, again, shutting down more than one lane of traffic as you install the cable itself.

And then this is just a small trailer guiding the cable into the vault.

MEMBER HILL: Mr. Chair, I have a question.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: The cable spool for lack of a better term, what's the length on one of those? I'm trying to just imagine.

MR. JOCHAM: Yeah. So it'll vary based off cable size, but we assumed that a typical reel for this project would be about 1800 feet.

MEMBER HILL: Okay.

MR. JOCHAM: And so we conservatively put vaults at 1600 feet based off of that.

MEMBER HILL: Okay. Helpful. Thanks.

MR. ROBINSON: As a comparison to our overhead transmission wire reels, they have 10,000 feet on them.

MEMBER HILL: Okay.

BY MS. GRABEL:

Q. Mr. Jocham, before you continue, I'm trying to imagine all of this equipment on a road such as Vine, especially I don't know if you remember on the tour there was that circular area.

How would a road such as Vine accommodate all of this equipment?

A. (Mr. Jocham) It would -- plain and simple it would be difficult. This is large equipment. And with the cable sizes that you have here, you're going to have heavy equipment. There's a chance -- especially with the roundabout that we passed through on Vine where the buses scraped the tree as we kind of went through that roundabout, it was a pretty tight fit for even a bus, there's a good chance from an engineering perspective and a construction perspective you'd blow through that roundabout and destroy it and have to rebuild it

afterwards.

So it would have impact to the community. And it would -- it's not -- again, with a linear project where you have linear disturbance it sometimes is unavoidable.

Q. Thank you.

A. (Mr. Jocham) So just some additional photos here. As you can see, this is kind of what a cable splice -- the beginning of a cable splice looks like in a vault. They're getting ready to combine those two cable sections together.

Below here, you can see this is that copper foil, your concentric neutral, and then this is actual -- the splice underneath this black is where the splice actually occurs. On top of this, they'll put extra insulation, wrap it up really tight to make sure there's no water intrusion.

Splices on the underground -- underground transmission side are held up aerially on supports on the side of the vault to protect them against standing water or anything like that.

Typical vaults have sump pumps in them to push the water out again to help keep the vault as dry as possible and minimize the potential impact of the cable getting water.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: You spoke earlier about the concrete being brought in after this process.

Is the entire trench filed with concrete or some sort of sand mix and then concrete?

Give me a little insight on that, please.

MR. JOCHAM: Yeah, absolutely.

So the conduits are placed typically on the bottom of the excavation. They're placed in -- they have spacers to make sure that the conduits are spaced appropriately.

From that, that's encased in concrete. Typically we'll stop the concrete a couple inches above the conduits. On top of that we're going to place another foot of concrete. That foot of concrete is red dye concrete. That's help to notify the public as they're excavating there's something very dangerous underneath this.

From that above that foot will be select fill, which will be a determination of engineering during detailed design. The important part of that fill is to make sure that it has the correct thermal characteristics to help dissipate the heat, so it's typically some sort of sand mix.

And on top of that would go the road.

MEMBER KRYDER: Very helpful. Thank you.

MR. JOCHAM: And then on the right here you can see this is just the testing truck. So this will come in after the cable's installed. They'll perform testing on the underground system prior to its energization.

This is just some photos of overhead. Obviously you guys, I think, are much more familiar with that, but excavation of your foundation or direct embedments. The placing of structures, you can see this crane is a 60-ton, all-terrain crane, RT crane.

And then after the structure's installed, you see the wire-pulling operation here. And so you can see that reel size and typical trailer that can be driven on the road. I gave those dimensions earlier, but that's what a typical reel setup looks like for overhead construction.

And so to discuss the cost impacts, we looked at three routes, and I'll -- as part of the cost estimate and study that is provided.

Our first route was 14th Street where basically the start of Kino Parkway or Campbell at that location 14th street and Kino Parkway, and it ran along Campbell all the way to Lester. That section of line is

approximately 1.8 miles.

MEMBER RICHINS: Chairman, just a point of clarification.

Your three routes have nothing to do with the three routes -- the three routes you tested have nothing to do with the three routes as proposed in the placemat; correct?

MR. JOCHAM: Absolutely correct.

MEMBER RICHINS: Okay. And so it would be good if we could understand the length of these tested routes.

MR. JOCHAM: Absolutely.

MEMBER RICHINS: Thank you.

MR. JOCHAM: And I do have one that I've run numbers really quick on on the preferred route just so we can understand.

MEMBER RICHINS: Yeah. It's going to be very difficult to correlate these numbers --

MR. JOCHAM: Yes.

MEMBER RICHINS: -- to anything that makes anything -- that makes any sense to anything we've heard so far.

So, I mean, I'm even reluctant to go through these because it's going to muddy the water more. If I'm going to get a cost estimate, I need to know the

route and how it correlates to what we've been studying for a week.

MR. JOCHAM: Sure.

MEMBER RICHINS: So I don't see how these cost estimates are helpful and could even serve to muddy the waters a bit. So --

MR. JOCHAM: So I can touch on the preferred Route 4. The numbers won't be on the screen here, but I can state them to you.

So preferred Route 4, which is basically starting at Euclid and Broadway and going all the way to the Vine station, that cost estimate quickly done was about 16.4 million a mile, and that is base cost. And I'll touch on that in a second what that means.

And then with the adders was 19.6 million.

And so what I mean by "adders" is the installed spare that we talked about for reliability purposes, but it also includes jack and bores or trenchless installations across major intersections, and this is to help minimize the impact to the public.

One thing about Route 4 that there is one jack and bore that's included in the base estimate of Route 4, and the reason behind that is it crosses the streetcar path.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: It would help me if we could look at Exhibit 26 because it's got the overlay maps.

MEMBER KRYDER: Into your microphone, please, Natalie. Please.

MEMBER HILL: So it would be helpful if we could look at Exhibit TEP-26 because it has the Gateway Corridors and the zone overlays, so when we talk about these numbers, we can actually see the route and see the overlay of those zones.

Meghan -- or, Ms. Grabel, are you okay with us looking at that map when we talk about these numbers?

MS. GRABEL: Yes, Mr. Chairman Stafford and Member Hill, I'm very fine with that.

I also do think, however, it would help to go through -- I understand what you're saying, Member Richins, but they are portions of various of the routes, and I think it will help the Committee to understand why there's a range of factors.

I think that's testimony that won't muddy the waters. I think it will clarify the waters. And maybe the reason we're having difficulty here is because we don't -- he hasn't yet gone through the various factors. He can talk about other things after that, but I would like that testimony to get put into evidence.

CHMN STAFFORD: All right. So the sections he's talking about on the right screen, can you -- I think we need to kind of tie them into where we're talking about --

MS. GRABEL: Certainly.

CHMN STAFFORD: -- for here.

On the other hand, it is after 12:30, and it's getting -- I think I'm starting to get a little hangry, so --

MEMBER RICHINS: Maybe I am too.

CHMN STAFFORD: Yeah. I think maybe we should break for lunch. And then during that time, they can -- the applicant can get the -- kind of narrow their presentation a little bit to kind of focus on what we're talking about looking at, and then we'll come back after lunch and then get into this.

MS. HILL: Mr. Chairman. I'm sorry, Mr. Chair.

CHMN STAFFORD: Oh, yes.

MS. HILL: It's Megan Hill. I'm sorry. In-house for TEP.

I'm sorry to cut in, but I believe we can put together those numbers with Mr. Jocham before the end -- before we conclude today certainly.

What I would like to know, though, is so

that we don't cause any frustration if Member Richins and anyone else that has a specific area that they feel is more important than the ones that are shown up there, if you can explain that to us before we go off the record, I think that would be really helpful so we use the correct parameters.

MEMBER HILL: May I ask Member Richins a question?

CHMN STAFFORD: Sure.

MEMBER HILL: Do you want the preferred route numbers? Is that what you're looking -- I mean, that's what I was looking for is just to understand the preferred route because I think that's the thing that we're taking most consideration of.

But others might want to understand the cost implications for other routes. I don't know.

CHMN STAFFORD: So I think the most relevant would be Section 1, isn't it, because that's the one that clearly the City has asserted undergrounding applies. It's not one of the ones where it may or may not based on how you interpret the University Plan. That's one clearly that's envisioned by what the Gateway ordinance -- Gateway's --

MS. GRABEL: Corridor Zone.

CHMN STAFFORD: Corridor zone, yes.

MEMBER HILL: Good point, Mr. Chair.

CHMN STAFFORD: So I think that -- and that -- because that -- certainly it makes sense to look at that because that's the most direct route. And so that one, if it has to be undergrounded, it's going to be expensive, and it's probably off the table.

If it doesn't have to be undergrounded, what's the cost difference between aboveground, underground? I think that would be one example of something that would be highly relevant of what the cost distinctions would be.

MEMBER RICHINS: Chairman. And to see you halfway, Megan, there are -- I think these are instructive. If we're looking to deviate off a -- say we were to say that going through certain neighborhoods that had to get undergrounded, these are going to be helpful for that.

So let's drop these on a map relevant to that. Is that shown on that? So we can kind of see those segments. I think that would be really helpful to show us what does a short run look like, because this is a good of example of what a short run looks like.

MS. GRABEL: We can do that. I believe Route 1 14th to Lester is Route 1 as identified on this map, but we'll work with that over lunch and come back to

you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Consistent with what we've been talking about, I would also like to see what a section through a neighborhood such as along Vine between Grant and Vine, the substation Vine, what that -- you know, it's more constrained. I realize that there are other issues in that. And if I could have sort of a sense of what undergrounding that section, the difference in cost is.

MS. HILL: So and to do that, I think, one of the -- there are some additional -- which, you will, of course, understand, Member Little, some additional pieces to that. I think we can absolutely do that.

We can maybe give bigger, rounder numbers today of routes and then might be able to segment more on Monday potentially if we can't get the segments quite exactly where you want.

But we'll work with Mr. Jocham. And I think we can definitely get you some numbers for the preferred route and any of those routes that go through neighborhoods which would include Route 3, which is the -- I believe also in -- that runs on the eastern boundary of the Sam Hughes Neighborhood. And so but we

can certainly focus first on the preferred.

MEMBER LITTLE: Thank you.

MR. JOCHAM: So if I may, we do have some of that information, which I think we can share today. It's part of Exhibit 17 or TEP-17.

We do show a map from Vine Substation to Grant along Vine. And we'll be able to look at that on a map. It's at the back of the study.

And then Route 1, as you see it here, 14th to Lester is the -- is Route 1 along Campbell Road -- or Campbell Avenue, excuse me. And so we can go through that as well.

And then any other ones we can update pretty quickly. Our spreadsheet is pretty -- has a lot of equations in it, so we have minimal inputs.

MR. ROBINSON: Can I ask just a clarifying question?

The Route 1 is only along the Gateway Corridor? That estimate is only along the Gateway Corridor?

MR. JOCHAM: Correct. Of Campbell.

CHMN STAFFORD: All right. Well, with that let's take our lunch break for approximately an hour. We stand in recess.

(Recess from 12:38 p.m. to 1:54 p.m.)

CHMN STAFFORD: Okay. Let's go back on the record.

MS. GRABEL: Thank you. Are you ready for me?

CHMN STAFFORD: Yes.

MS. GRABEL: All right. Thank you, Mr. Chairman. Before we continue with the underground slide, I just really quickly wanted to ask Mr. Robinson, in the last panel one of the Committee Members and I'm sorry I can't remember who, asked you a question about what if the joint users of the poles do not want to go underground, can't they just erect their own poles and still stay aboveground.

Have you been able to determine an answer to that question?

A. (Mr. Robinson) Yes, I have. Typically the joint-use applicants can apply to the City or the other jurisdictional governing jurisdictions for overhead permits in those areas if they wanted to. But the challenge of going through that, they'd just join us, and our experience has been in the past, they just join us in the undergrounding of the project and go in our joint-use trench.

MS. GRABEL: Okay. Thank you. All right.

MEMBER RICHINS: Chairman, I want to ask a

question related to that.

CHMN STAFFORD: Yes.

MEMBER RICHINS: So my understanding right then for TEP overhead is by right and for the other utilities it's by permit? The collocated utilities are by permit. But TEP has overhead utilities by right?

MR. LUSK: So this is Roi Lusk for the City of Tucson. Member, this is -- I think that question is decided in somewhat in some fashion by the franchise. And then there are -- the TEP is still subject to certain right-of-way regulations, even though they are a franchised utility. And then you're correct, the communications providers are governed by a lines agreement and a permit.

MEMBER RICHINS: Okay. So if I'm understanding it right, then, the relationship of the disposition of some utilities is regulated by your franchise agreement of some of your --

MR. LUSK: Southwest Gas.

MEMBER RICHINS: So that's the governing document for your guys' relationship.

MR. LUSK: To the extent it doesn't conflict with our regulations, yes.

MEMBER RICHINS: Could you give me an example of a regulation it might conflict with?

MR. LUSK: Well, it doesn't necessarily conflict. It's just the franchise isn't necessarily as specific as the regulation. So, for example, in this case where we're talking about, for example, the Gateway Corridor Zone, what the franchise says is that TEP agrees to comply with local regulation.

MEMBER RICHINS: Do you anticipate that -- so when is -- when do you need to renew your franchise agreement to govern this relationship?

MR. LUSK: I believe it ends in April of '26.

MEMBER RICHINS: And so you'll need to be to the voters when to approve that franchise agreement?

MR. LUSK: Preferably early in '25.

MEMBER RICHINS: Do you have an election that is scheduled at that time?

MR. LUSK: We don't have an election schedule for franchise at this time, no.

MEMBER RICHINS: Okay.

MS. HILL: May I -- Mr. Chair, Member Richins, may I try to clarify something. I'm not sure that -- maybe we are, but I'm not sure that we're talking about apples to apples. May I ask --

CHMN STAFFORD: Yes. Go ahead, Ms. Hill.

MS. HILL: Okay. So the TEP's franchise

agreement with the City governs our relationship with the City. Any of the joint -- what we have joint attachers, and there is a little -- some discussion -- and a franchise agreement is I believe is one of Underground Arizona -- UGAZ's exhibits. I think it's Exhibit 21.

So, but each of the -- and Mr. Lusk, correct me -- but, so anything that we do in the right-of-way, if we're going to construct something we have to pull a right-of-way permit from the City. City knows everything that we do in the right-of-way despite -- even though we have the franchise agreement we can't just drive around and drop poles places.

The same is true for whatever independent relationship our joint attachers may have with the City, communications companies may have with the City, as he said, Southwest Gas, although they're largely underground, that those are different relationships with the City. It is not just the TEP franchise agreement that covers all of this. That would be inappropriate, frankly. We're different entities.

MEMBER RICHINS: Yeah. And I absolutely agree. Thank you for clarifying that. I just wanted to establish that the franchise agreement is the governing document for your relationship subject to local regulations.

MS. HILL: And state law.

MEMBER RICHINS: And state law. Correct.

MS. HILL: Like this one.

MEMBER RICHINS: Nice try.

CHMN STAFFORD: All right. Ms. Grabel?

MS. GRABEL: Okay. Let's proceed.

BY MS. GRABEL:

Q. Mr. Jocham, did you have the opportunity at lunch to slightly revise the slides that we had looked at on TEP-16, I believe, to address the Committee Members' question?

A. (Mr. Jocham) TEP-17, but yes.

Q. TEP-17. Thank you. And Mr. Ancharski is making hard copies for the Committee now. But I think I'd like to ask you to show -- so this new exhibit that we're going to have is going to be TEP-30.

This clarifies the routes that were on the earlier slide. We didn't have to do a lot of number crunching because the routes were still mostly the same. But why don't you walk through and talk about each of the routes you analyzed first and then talk about the cost differential on them.

So let's start with Route 1, and if someone could use the map on the left which is the same map on out your placemats, I believe it's TEP-2, and talk

through which routes we're talking about and where.

A. (Mr. Jocham) Yep. So a lot of the routes that we did in the cost estimate did have portions that were part of the routes that were studied. And so the updated slide on the right will clarify some of that information.

So what we studied as a part of this was Route 1 basically starting at Kino as it enters -- as it becomes part of the Gateway Corridor all way up to Lester. And at that point when it exits the Gateway Corridor, we assumed, or at least from the cost estimate that you see in Route 1 on the right, it terminates.

So approximately 1.8 miles along -- along Campbell Avenue.

And then Route A assumes along Vine Road, which is equivalent to -- yeah, excuse me, Route A, so along Vine Road from Vine Substation to Grant, and then the next one -- table you see here at the bottom --

MEMBER HILL: Mr. Jocham.

MR. JOCHAM: Yes.

MEMBER HILL: Sorry to interrupt. What's the distance of that? Because I'm just writing down the distances.

MR. JOCHAM: Yep, it's in the slide, .46 miles.

MEMBER HILL: I apologize. Thank you.

MR. JOCHAM: Yeah, it was added, so.

And then lastly is Route D, which also shares Route 6 from Lester to Grant.

And so with -- with those you can see the costs.

BY MS. GRABEL:

Q. Well, actually, Mr. Jocham, before we do that, let's go to the next slide just to show the other two routes that we analyzed.

A. (Mr. Jocham) These ones are the new ones that we analyzed over lunch. But we looked at -- these are the preferred routes at least within the University Area Plan. So from Broadway and Euclid Avenue to Vine, which is approximately two miles, and then from Vine along Adams.

CHMN STAFFORD: Wait. Wait. Go back.

MR. JOCHAM: Sorry.

CHMN STAFFORD: So Route 4 --

MR. JOCHAM: Is Euclid and -- starts at Euclid and Broadway where the University Area Plan starts.

CHMN STAFFORD: So it's on Euclid, then?

MR. JOCHAM: Yeah. Underground up Euclid, following the same route to Vine Substation all underground is what that estimate at the top provides.

CHMN STAFFORD: So what's the crossroads where it starts, Euclid and what?

MR. JOCHAM: Broadway.

CHMN STAFFORD: Broadway. Okay. And then all the way up to the Vine Substation?

MR. JOCHAM: Correct. Following the same route.

CHMN STAFFORD: Okay. All right.

MR. JOCHAM: So it's a total of two miles.

And then Route B which, again, starts back at the Vine Substation along Adams and up Park to Grant. And that's 1.18 miles.

BY MS. GRABEL:

Q. And to clarify, those -- the routes that we've analyzed are the portions of each of the routes that are required -- that may be required to be placed underground either by because it's in a Gateway Corridor Zone or because it's in a University Area Plan assuming that the University Area Plan requires undergrounding; is that correct?

A. (Mr. Jocham) Correct.

CHMN STAFFORD: So the last one on here, the Vine Substation to Grant, that would be along Park Avenue and Adams?

MR. JOCHAM: Correct.

CHMN STAFFORD: Okay. Is it Adams Road, Adams Street? What is it?

MR. JOCHAM: Adams Street.

MR. ROBINSON: Street.

CHMN STAFFORD: Okay. Thank you.

MR. JOCHAM: I'm going to go back a slide to talk about the numbers.

So on Route 1, starting along at basically Kino Parkway and 14th Street just south of Broadway is where we propose the underground to start there because of the Gateway Corridor.

We headed north terminating at Lester as it turned -- as the line turned west onto Lester.

And so the cost estimate, and this was in the original report with the detailed breakout supplied, is about $16.8 million per mile for the base case. That totals out to 26.2 or almost 26.3 million for the entire alignment.

And that base case, again, assumes that we would trench -- open trench through Broadway, through Speedway, and through Kino Parkway. And also trenching in front of Banner and the university, open trench.

CHMN STAFFORD: Now, these numbers, are they in addition to the other costs provided for this chunk of the line, or is it in lieu of the other costs?

MR. JOCHAM: So the adders are inclusive of the base cost.

CHMN STAFFORD: No, no, no, no. I'm talking about the costs that the TEP gave for the overgrounding costs, is this a replacement for that or is it in addition to?

MR. JOCHAM: It's a replacement.

CHMN STAFFORD: Okay.

MR. JOCHAM: So the underground costs, to clarify, the underground cost you see here would be the cost to install it as a true underground transmission line. It does not include any of the distribution replacements, relocations.

CHMN STAFFORD: Okay. So if you look at the back of the placemat, you have -- let's look at Route 1. It says length, 4.1 miles, $11,756,509.

Now, we look at this chart, you have Route 1 you have to underground from 14th to Lester on Campbell. You know, are these numbers in addition to the number here?

MR. JOCHAM: No, they'd be replacement of a section of that alignment that you see here on -- because Route 1 that you see here is from Kino all the way to Vine. The underground that we're representing on the table here is only in the Gateway Corridor.

CHMN STAFFORD: Right. And you said it doesn't include undergrounding the distribution stuff; right?

MR. JOCHAM: So this number does on the back of your sheet, includes the relocation of --

CHMN STAFFORD: The placemat.

MR. JOCHAM: On the placemat, yeah.

CHMN STAFFORD: Right. I'm just saying, like, you have these two different numbers and I'm saying it sounds like you don't add them together, but it's not a complete swap out because there's a bunch of costs that are on this underground versus overhead that don't include things that are in these other costs such as undergrounding the distribution stuff.

MR. JOCHAM: Correct. So if you were to go underground with the transmission line --

BY MS. GRABEL:

Q. I think I understand what you're asking.

CHMN STAFFORD: You understand what I'm saying?

MS. GRABEL: I do. So Mr. Chairman, so what we've done here is given for the section of the route an apples-to-apples comparison just to that section we have not yet calculated the entire project cost assuming where you have the aboveground build with the

underground, so we don't have an apples-to-apples with your placemat.

If you'd like us to calculate, we're happy to do that. Probably a Monday project.

CHMN STAFFORD: Yes, definitely a Monday project.

MS. GRABEL: But I think this still has value to walk through, because it does show apples to apples on a certain segment what it would cost to build it underground versus aboveground.

CHMN STAFFORD: Right. And I think what the Committee wants to see, or certainly I want to see is that, for example, like Route 1, that is the most direct route from Kino to Vine.

However, the undergrounding costs would change the equation of whether to select that route or not. And so I want to compare, for example, if the Committee were to say, okay, make a finding of fact that the undergrounding costs are excessive and unreasonable, and issue the CEC notwithstanding that requirement, we need to know what -- because, like, the placemat says what it costs to do it, if you -- if the Committee makes that finding of fact.

These numbers here don't give me a straight apples-to-apples comparison of what it would cost because

the statute requires to say the Committee needs to look at the cost of what the applicant has proposed versus what the Committee recommends.

So I need to have a number that says if it's going to cost X, if we make that finding of fact, it's going to cost X plus Y equals Z, and that Z number is what we want to see to compare it.

MS. GRABEL: Okay. We can certainly get you that number.

CHMN STAFFORD: Okay. Okay.

MEMBER RICHINS: Chairman, it just -- we may be saying the same thing. I was having a hard time following the whole thread you had there.

But, I mean, just using just the placemat math, you're at 2.8 a mile overhead. Is this particular section that much cheaper than everything else overhead? Because you put here 1.2 million a mile. If I take 4.1 miles and divide that into 117 -- 11.7 million, I get about 2.8. Not 1.2.

So is it 2.8 million a mile, or is it 1.2 million a mile?

MS. GRABEL: Thank you, Mr. Chairman. So Member Richins, I think that the placemat includes additional undergrounding distribution facilities that we've agreed to do if we overhead. So the 1.2 per mile

overhead is purely overhead.

But because we have the agreement to construct some facilities aboveground, the placemat map is higher. That's what -- that's the difference between the placemat and the 1.2 million.

MEMBER RICHINS: Well, you have to kind of do it anyway, don't you? I mean, shouldn't we be including that?

MS. GRABEL: Yes, that's why we're going to do the math that I talked with Chairman Stafford.

MEMBER RICHINS: Not that -- not that math. Okay. I just -- I wasn't sure I followed everything he was saying.

CHMN STAFFORD: Right. In other words, there's costs included in the placemat such as the -- but that they wouldn't -- that would be different than what's on the screen here. That's not included -- it's like this isn't -- I mean, because this isn't -- I mean another way to do it would be, you know, what's the difference, what's the marginal cost to underground here assuming, because if you're going to underground the high-voltage line, I mean, you wouldn't leave the distribution poles up on the corridor, would you? I mean that seems counterproductive.

MS. HILL: Well, actually, so -- Chairman

Stafford, we actually have technical testimony about that. And if we could proceed just a little bit with some additional questions, it might help refine the numbers that the Committee wants. And what -- because there is actually some -- and it would also help us understand, too, what the Committee would expect if we were -- because it becomes a really different undergrounding project if we're throwing distribution into those trenches as well. Or adding the distribution of the underground into there.

And so that's what we wanted. This is what we wanted to talk to the Committee about and I appreciate all of the Committee's concerns and questions. But I think if we can develop our technical testimony a little more, then we can have a better conversation on Monday.

CHMN STAFFORD: Okay. That makes sense.

MS. HILL: Okay. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Just a simple question, something I'm missing. You have a column here called "Difference."

MR. JOCHAM: It's a multiplier.

MEMBER GOLD: So if I look at total costs for Route 1, 14th to Lester, to underground is 17.8 times

more expensive. Is what I'm looking at?

MR. JOCHAM: With the adders, yes.

MEMBER GOLD: Is that just for this portion or --

MR. JOCHAM: That's just for that portion.

MEMBER GOLD: Okay. Then we'll get the other answer when you do it on Monday and give us the whole thing, the whole route, the cost difference.

MEMBER RICHINS: Chairman, Member Gold, the whole controversy here is that it feels like your technical estimates are being built on flawed math. And if we continue to build on flawed math that we don't agree on, then we can't get to a number, we can't get to something that's a finding that you seek that I'm very reluctant to give you. If the math just on its face doesn't --

CHMN STAFFORD: I'm not seeking -- are you talking to me or to them? Because I'm just throwing out what the --

MEMBER RICHINS: Yes.

CHMN STAFFORD: -- possibilities are. I haven't made any decisions on what's going happen. I'm just trying to figure out what -- kind of chart the course of what decisions we need to make and make sure we don't make conflicting decisions.

MS. GRABEL: Chairman Stafford, Member Richins, if you let us walk through the presentation, you'll see the math that we have done. And we'll explain what it includes and what it doesn't include.

And if you want us to include additional information after that, we can come back on Monday and do that. But I'd to like to walk through and discuss why these numbers are what they are, how they might change, why adders may or may not be necessary, et cetera. If you'll let us put that on the record I think that could help you kind of figure out where we are coming from.

CHMN STAFFORD: All right. That sounds like a reasonable plan.

MS. GRABEL: Okay. Thank you.

BY MS. GRABEL:

Q. Okay. So Mr. Jocham, if you could start with Route 1 and talk through what is included in the underground cost, what is included in the overhead cost, and why certain things were omitted in the calculation.

A. (Mr. Jocham) Absolutely. Yep. So total cost base design for underground includes the underground cables, the underground trench, assuming trenching through all major intersections.

And that totals out at the 1.8 miles to 26.3, approximately 26.3 million.

While the overhead is purely the installation and material for the overhead 138kV line, it does not include any of the distribution. It does not include any land acquisition. Neither of these numbers include land acquisition.

And the reason why, there's a technical reason why we didn't put the distribution underground, because if you put the distribution underground it induces additional heating on the transmission line, which will change the size of the transmission line conductor.

The TV distribution line produces heat. If you add one of those shaker heat hand warmers into your sleeping bag, it increases the heat of your cable and thus requiring a larger cable size potentially.

That has not been studied. So we do not fully understand that impact. So the distribution would stay overhead as to not impact the transmission line that's going underground.

Q. And just to clarify, Mr. Jocham, the distribution would stay overhead only in the areas where transmission is undergrounded; correct?

A. (Mr. Jocham) Correct.

Q. So when we give Chairman Stafford and the rest of the Committee the number they asked for on Monday, we will include undergrounding distribution in the areas

where transmission is aboveground and only undergrounding transmission and not distribution where transmission is undergrounded; is that correct?

A. (Mr. Jocham) Correct.

CHMN STAFFORD: So we'll have a total number for either option for that entire segment of the line.

MS. GRABEL: Correct.

CHMN STAFFORD: Okay. That's -- I understand how you did this, it's kind of a more preliminary just explaining the cost breakdown. We just got a little premature with our questioning, if you saw the numbers and start asking questions before you actually explained what we were looking at here. So sorry I jumped the gun a bit there.

MS. GRABEL: You're all good.

CHMN STAFFORD: I understand, but you understand where I'm coming from, that eventually we need to get to where I am.

MS. GRABEL: Yes.

CHMN STAFFORD: Okay.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Oh, Member Gold, you have a question.

MEMBER GOLD: Now you added something in

that I didn't hear before. You just said that if we underground the transmission lines you're still going to have power lines, distribution power lines aboveground on Campbell.

MR. JOCHAM: Distribution; correct.

MEMBER GOLD: So you're still going to have lines on Campbell even if you underground.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: We keep saying distribution. We're including 46kV because that's on those poles also; correct?

MR. JOCHAM: Those would eventually go away, though, because of the installation project.

MEMBER LITTLE: Because it no longer be needed.

MR. JOCHAM: But distribution would remain.

MEMBER GOLD: So that would be --

MEMBER LITTLE: Saw the tops off the poles?

CHMN STAFFORD: One at a time.

MEMBER LITTLE: I'm sorry. So you're going to saw the tops off the poles or --

MR. JOCHAM: Mr. Robinson, would you like to answer that question?

MR. ROBINSON: Occasionally it's that

simple where we would top the pole, but most of the time because of the age of the system those poles would be replaced when it's converted to 14kV.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: And there is another -- like in the neighborhoods there's additional distribution; right? There's not -- it's not just all 46kV because you have the -- all the lines going into the homes, too; right?

MR. ROBINSON: Yeah, the long-term buildout would include updating all of the back alley distribution systems and things like that that are currently at 4kV to be at 14kV ten years from now is what we've talked about under testimony.

CHMN STAFFORD: Okay. And Member Gold, you had a question.

MEMBER GOLD: Yeah, the -- so you're having 48kV pole -- I'm just talking about Campbell, on the Campbell route, Route 1 or A. Whatever that area is on Campbell, the business district.

So you're going to have 14kV lines or 46kV lines or both?

MR. JOCHAM: It would be the 14kV distribution lines.

MEMBER GOLD: And how tall are they?

MR. ROBINSON: Along Campbell those lines are between 40 and 55 feet depending on what we're trying to avoid.

MEMBER GOLD: And how far apart are they going to be spaced?

MR. ROBINSON: They're two to 3000 feet apart.

MEMBER GOLD: So every 200 to 300 feet on Campbell, even if we underground, you're going to have 45-foot-tall power lines every four or 500 feet.

MR. ROBINSON: Yes, that's the way it currently is also today.

MEMBER GOLD: Thank you.

CHMN STAFFORD: All right. Please proceed, Ms. Grabel.

MS. GRABEL: Thank you.

BY MS. GRABEL:

Q. Mr. Jocham, please discuss the adders and talk about what the adders are, what types of facilities are those and how did they increase the costs?

A. (Mr. Jocham) Yeah, so the two key adders are the installed spare conductor for increased reliability purposes, and then the second adder would be a trenchless installation. When it's this short it's a method called jack and bore, where two joint trenches or giant

excavations would be on either side of the road, we'd bring in special machinery and basically push a pipe through underground, and then we'd pull the cable through that. Allowing no disturbance over top of the start and stop point of that procedure.

That obviously specialized equipment, additional cost adders for something like that.

And so we were doing them through all major intersections, again Broadway, Speedway, and across Kino on the Gateway Corridor would those three -- at least for Route 1, three jack and bores were proposed.

Q. So just to underscore, the base cost which is the 14 times on Route 1, for example, does not include the spare cable for reliability purposes?

A. (Mr. Jocham) Correct.

Q. And I think the Committee understands the importance of the spare cable because you'll have extended outages if there isn't any; correct?

A. (Mr. Jocham) Correct.

Q. And the jack and bore is important because on areas such as perpendicular crossings of streets, you'd have to dig up the entire perpendicular crossing if you don't use a jack and bore; is that correct?

A. (Mr. Jocham) Correct.

Q. Okay. Thank you.

Please continue.

MEMBER GOLD: A question before you continue. Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: So for total cost, the only thing we really need to look at is the total cost with the adders because you couldn't -- you wouldn't do this without the adders; is that correct?

MS. GRABEL: I think we should let Mr. Robinson answer that question from a company perspective.

MR. ROBINSON: So from a reliability and operations perspective, we would want to put in the added costs and install and operate that. Partly because this is new to our system. It's the first time we would have 138kV underground. So we would want to make sure to have that flexibility of the spare cable along that route.

MEMBER GOLD: Thank you. So the key number is the total cost with the adders. That's the number we are to consider.

MR. ROBINSON: Yes.

MEMBER GOLD: Thank you.

BY MS. GRABEL:

Q. And Mr. Jocham, just to make one more point of clarification, the numbers on the screen do not include

any additional costs, for example, if there are utilities you weren't expecting that you'd have to relocate, or if there's a sensitive, you know, cultural resource you discover that you'd have to relocate; is that correct?

A. (Mr. Jocham) Correct.

Q. So these are conservative in that regard?

A. (Mr. Jocham) Unconservative in that regard.

Q. Okay. Conservative. Okay. Whatever. Go ahead. Please continue.

A. (Mr. Jocham) Next would be Route A which is basically the length along Vine Road. In the report at the end as part of some of the appendices there are GIS maps that do represent what we are preliminary projecting as the alignment for the underground which includes where vaults are required, where those vaults would be and what they kind of look like.

But along Route A, that distance, you -- you can see the underground cost per mile is much higher. That is mainly due to baseline costs that are required for all undergrounding which includes mobilization of specialty contractors, testing of the cable after installation, and the overall general mobilization cost isn't spread out across the longer linear distances, and so you'll see the cost increase in those sections.

For the Vine Road section, you can see the total

with the cost adders is not much higher than the base design. That's because there are no jack and bores in this section. It's just the additional cable.

And then with Route D, Campbell -- the Campbell route, you can see the cost is a little bit higher, in higher in comparison between the base case and the adders, even though the mileage is generally the same. And that's because this does include a jack and bore across Grant assumed.

For the cost impacts for Route 4 starting, again, on Euclid and Broadway and heading north, the base case on this particular project -- or this particular section of line includes a required jack and bore.

And that is because it does cross the streetcar path and rail typically is a trenchless installation. Otherwise you'd shut down the streetcar for multiple weeks. And so the expectation is that you would utilize trenchless installation to get across that obstruction.

Again, you'd have trenchless installations at Speedway and others as well along that route, and so you can see the cost adder there, or the total cost for two miles is about 40 million.

Again, this does not include any land costs, right-of-way costs. This is purely engineering, material, and construction.

And then finally, Route B, which is the same Route B as the overhead from Vine Substation along Adams and up Park, a 1.18 mile section.

Total would be about 25.4 million, and that's approximately 17.75 times greater than just the engineering procurement and construction of the overhead, not including any land or relocation of distribution and/or third-party attachments.

MEMBER RICHINS: Chairman, a quick question on this. Does that assume you're coming from the north side of Grant, under Grant and then down the route? Or are you starting from the south side of Grant?

MR. JOCHAM: South -- for route -- for Route B we are assuming the south side of Grant where the existing 46kV has just been --

MEMBER RICHINS: Okay. So you have a street go under on that one.

MR. JOCHAM: Yeah, no jack and bore on that one.

MEMBER RICHINS: Thanks.

MR. JOCHAM: And that finishes out the cost aspect. We still have some reliability slides on the other presentation if we could switch back over to that one.

MS. GRABEL: Okay. Do the Committee

Members have further questions on this or would you rather wait until Monday?

CHMN STAFFORD: Let's wait till Monday and you can have a -- more the cost breakdown that I was asking for.

MS. GRABEL: Okay.

CHMN STAFFORD: So --

MR. JOCHAM: Okay. On to the reliability and maintenance portions.

So underground transmission lines are generally reliable. In TEP -- what was the national grid submittal?

BY MS. GRABEL:

Q. Oh, TEP Exhibit 27, I believe.

A. (Mr. Jocham) Correct. In TEP-27, National Grid, a utility both in the United States and the UK who has a significant amount of underground in their system in the UK, identifies and makes a statement to that overhead and underground lines generally have the same reliability and maintenance cost.

Underground lines are protected from weather events providing storm hardening, which is a benefit.

But regular maintenance would require the circuit to be energized in lane closures for personnel to access vaults, so we talked about the safety aspects of

deenergizing the line when you enter a vault.

Those of you who have lived in Arizona know that there was a fatality in a utility vault a few years ago in Phoenix. And so that's just a key indicator of why lines need to be deenergized when you enter those vaults.

This project would use specialty nonstandard materials, which could potentially extend out restoration if a failure and outage were to occur.

It would require specialty contractors to perform that outage work.

Outage durations could be months, and a good example of this is the SRP Price Road Corridor Project. I drive along the South 202 regularly. They had a termination failure, and that circuit and conductor was hanging off that riser pole for about -- for a couple of months before the new termination was placed on it. Probably the public didn't notice but it was very clear to me as an engineer seeing that termination not there and knowing that line was not energized.

MEMBER RICHINS: Chairman. Question.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: Mr. Jocham, did I get that right?

MR. JOCHAM: Jocham.

MEMBER RICHINS: Jocham. So when

performing regular maintenance and the circuit becomes deenergized, does that mean customers of TEP lose power during that maintenance interval?

MR. JOCHAM: I think that's a question for Mr. Robinson.

MR. ROBINSON: So in the way that this application is where we would have a looped system, they would not have an outage. We would have a segment that is out of service which would put it more at operational risk. So essentially we would be putting the substation on a radial line to do maintenance.

MEMBER RICHINS: Okay. So no customers typically -- typically customers do not lose power during a maintenance interval?

MR. ROBINSON: Typically, yes, that's true.

MEMBER RICHINS: Okay. Thank you.

MR. JOCHAM: So with speaking of maintenance and outages, again, we can go back to the reduced outage having that installed spare where TEP crews can swap overhead jumpers to energize that spare phase and reduce duration, but, again, that increases the overall cost of the project.

Stored materials and stockyards could reduce material lead times, but you would still need those specialty contractors to do the installation and

that could again cause extended durations for those specialty contractors to be scheduled to come out to Arizona to do that work.

CHMN STAFFORD: Quick question. You may not know the answer. Do these specialty contractors, can you put them on some sort of retainer where you pay them not to work but to be available to work? Does that ever happen? Or it's just that's not something they do.

MR. JOCHAM: I don't know the answer to that.

MR. ROBINSON: Because we haven't pursued anything like that, I don't know the answer to that either.

CHMN STAFFORD: That's right, because TEP has zero underground 138kV transmission lines; correct?

MR. ROBINSON: That's correct.

CHMN STAFFORD: Okay. All right. Member Hill, you had a question?

MEMBER HILL: I do. Mr. Jocham, thank you. I've learned a lot today.

I just want to be really kind of thoughtful about how the public is kind of hearing some of this conversation.

So earlier in the conversation you talked about how SRP had undergrounded something in Chandler,

and there was the potential for 48-hour outages in their contract or in their development agreement, maybe, with the City.

Can you share knowledge that you have about the outages that were there, and maybe Mr. Robinson can talk about how TEP would approach minimizing those outages.

Because I know that's what the contract says. It's kind of worse-case scenario. But for folks who are listening and paying attention to this hearing, I want to make sure that we're clear about what's most likely to happen and kind of not worse-case scenario for these kind of outages during construction.

MR. JOCHAM: Sure. Yeah. Limited access to homes and potentially no access would be the issue.

Now --

MS. GRABEL: Mr. Jocham, let me just clarify. Member Hill, the testimony wasn't that there would be a 48-hour outage, but they wouldn't have access to their homes because of the construction on the street.

MEMBER HILL: Okay.

MS. GRABEL: So it's just by vehicle exactly. It's not exactly what you heard.

MEMBER HILL: Okay. Thank you. That's helpful.

So then I want to kind of understand, like, how many people were affected and weren't able to access their home or business for 48 hours? I feel like those contracts are written kind of worst-case scenario, it might be this kind of time frame.

Can you talk about your company's experience or your knowledge in not having access to a place?

MR. JOCHAM: Sure. I don't know the answer to what happened in Chandler. I wasn't part of the SRP HIP project.

But I can say generally during the process of construction and at the end of the day, you would place those steel plates over top, which at that point you could grant access during those periods of time when construction wasn't on site. But absolutely would be restricted during the day when active construction was going on.

And they would -- I'm sure deals could be struck between the contractor and the public to know when they can and can't access their homes, but I don't truly know what those deals would look like and I haven't been a part of them.

MEMBER HILL: Let me just follow up with you may not know the experiences for folks in Chandler.

Can you talk generally about where your company has done undergrounding and how that access issue has been mitigated to reduce impacts to folks.

You talked a little bit about the steel plates, but --

MR. JOCHAM: Yeah, I mean.

MEMBER HILL: It feels like it's slow going so maybe it's only a few hundred feet at a time. I don't know, can you --

MR. JOCHAM: Right.

MEMBER HILL: I just want folks to have the assurance that TEP and developers are being thoughtful and careful about that and how you mitigate that.

MR. JOCHAM: Sure. Yeah. So S&L is an engineering company, so we don't do the construction of it.

MEMBER HILL: Okay.

MR. JOCHAM: But, I mean, we are around it. And so I think mainly what I've seen and -- is the plates. And so remove the plates in the morning when construction crews are there present and working, and when they leave they place the plates on top. Vehicles can drive over top of those plates. They're rated for vehicles.

MEMBER HILL: Okay.

MR. JOCHAM: So, again, it's -- there may be extended periods of time where you may have to Park and walk or -- or do that. But I'm sure construction contractors to keep the public around them as happy as possible will try to do things. I can't say what those things would be and how effective they might be. But --

MS. GRABEL: And Mr. Chairman, Member Hill, if I may add, TEP's proposal is not to underground and so I just want to make it clear we're not trying to put a parade of horribles and try to anticipate if we were required to underground we wouldn't act appropriately, but our proposal is we don't feel that we should be required to underground.

And I mean, I'll also inform the Committee, obviously this isn't testimony because I'm a lawyer, but we did meet with SRP to talk about the impact of undergrounding, and Mr. Jocham is talking about is not hyperbole. I mean, it's apparently quite impactful. But I'll just leave that as it is.

MEMBER HILL: Okay.

MR. ROBINSON: Member Hill, you asked me to fill in a few things that -- what we might do.

Because we have so much distribution underground and undergrounding, whether it's distribution or transmission, is a linear disruption to access. We

have encountered multiple locations where the access to a commercial property or residential properties are cut off while the trench is open or while there's activity that's going on.

A few things that we try to do are the use of the steel plates.

We also try to work in shoulder hours where we might start early or end late. Sometimes we'll actually do our work at night. But that depends on how we can coordinate that.

And we'll also often work on a weekend when a commercial building or commercial access is closed and so we can mitigate the impact to them that way.

MEMBER HILL: Okay. Thank you, Mr. Robinson.

BY MS. GRABEL:

Q. And, Mr. Robinson, that's undergrounding distribution facilities in your experience; correct?

A. (Mr. Robinson) Yeah, that's correct.

Q. Do you think it would be kind of loud to install an underground transmission facility at night?

A. (Mr. Robinson) The equipment's bigger and so I'm assuming it's noisier. It is -- I know that it's noisier. I just, we haven't done it here.

MS. GRABEL: Thank you. I don't know how

much longer, I just have a couple or questions, but it might exceed the 10 minutes that you suggested we take. So I don't -- this might be a good stopping point?

CHMN STAFFORD: Members, I think we've reached a good stopping point. We'll be here, back Monday and the rest of the week so -- potentially. But -- yes?

MEMBER LITTLE: If I may, I have a couple questions.

MS. GRABEL: Of course.

MEMBER LITTLE: First of all -- I think they can be answered fairly quickly -- do you -- is construction done year-around in Tucson?

MR. ROBINSON: Yes.

MEMBER LITTLE: And my other question is I'm wondering how much of these details have been shared with the neighborhood organizations, with the public.

I'm just wondering if the people that really think they want underground through their neighborhood as opposed to overhead if a route was chosen through their neighborhood, if they really have a good concept of what they would be facing in placing this line underground.

MS. GRABEL: I don't believe, Member Little, that this panel is the appropriate panel to ask

that question. But we can bring Mr. Bryner up at a later time and he can address that.

MEMBER LITTLE: Next week is fine.

MS. GRABEL: Okay. And I might have spoken too soon. Mr. Jocham, do you have another slide? No. Okay. I didn't think so.

CHMN STAFFORD: Anything further? Any further questions from members? Otherwise we'll recess until Monday morning at nine. All right. We stand in recess.

(Proceedings recessed at 2:39 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206(J)(1)(g)(1) and (2).

Dated at Phoenix, Arizona, July 16, 2024.



JENNIFER HONN, RPR
Arizona Certified Reporter
No. 50885

I CERTIFY that GLENNIE REPORTING SERVICES, LLC, has complied with the ethical obligations set forth in ACJA 7-206(J)(1)(



GLENNIE REPORTING SERVICES, LLC
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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-359

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 15, 2024

Filed: July 24, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME VI
(Pages 1047 through 1324)

GLENNIE REPORTING SERVICES, LLC
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Arizona CR No. 50558

ACC - Docket Control - Received 7/24/2024 3:37 PM
ACC - Docket Control - Docketed 7/24/2024 3:57 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789
VOLUME IV	July 11, 2024	Pages 790 to 857
VOLUME V	July 12, 2024	Pages 858 to 1044
VOLUME VI	July 15, 2024	Pages 1045 to 1324

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719
Index to the Tour	
Stop 1	801
Stop 2	813
Stop 3	828
Stop 4	833
Stop 5	845
Stop 6	847

INDEX TO EXAMINATIONS

WITNESSES	PAGE
Jason Jocham and Larry Robinson (Cont.) - for the Applicant	
Clark Bryner (Recalled) - for the Applicant	
Direct Examination By MS. GRABEL	1058
Cross-Examination By Mr. Lusk	1103
Examination By Mr. Dempsey	1146
Redirect Examination By Ms. Grabel	1196
Clark Bryner and Mr. Robinson - for the Applicant	
Direct Examination By Ms. Grabel	1212
Cross-Examination By Ms. De Blasi	1219
Cross-Examination By Mr. Lusk	1223
Mark Barkenbush - for Banner University Medical Center and Banner Health	
Direct Examination By Ms. De Blasi	1227
Cross-Examination By Ms. Grabel	1316
Cross-Examination By Mr. Lusk	1318
Cross-Examination By Mr. Dempsey	1320

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	1225
TEP-2	Map of Proposed Project	21	1225
TEP-3	Testimony of Clark Bryner	52	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-4	Testimony of Chris Lindsey	54	1225
TEP-5	Testimony of Erik Bakken	57	1225
TEP-6	Testimony Summary of Larry Robinson	386	1225
TEP-7	Testimony Summary of Jason Jocham	948	1225
TEP-8	Witness Presentation	49	1225
TEP-9	TEP Ten-Year Plans	58	1225
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	1225
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	1225
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	1225
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	1225
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	1225
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	1225
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	1225
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	1225
TEP-10	Exhibits Regarding Notice Requirements	58	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10A	Notice of Hearing	58	1225
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	1225
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	1225
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	1225
TEP-10E	Map of Notice of Hearing Sign Locations	58	1225
TEP-10F	Photographs of Sign Placement	58	1225
TEP-10G	Example of Sign Contents	58	1225
TEP-10H	Notice of Service to Affected Jurisdictions	58	1225
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	1225
TEP-11	Receipt of Filing Fee	58	1225
TEP-12	Virtual Tour	504	1225
TEP-13	Tour Itinerary/Script/Protocol	254	1225
TEP-14	Summary of Public Outreach	929	1225
TEP-15	Proposed Certificate of Environmental Compatibility	1225	1225
TEP-16	Undergrounding Presentation	950	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-17	Undergrounding Cost Analysis Study	948	1225
TEP-20	Additional Project Comments	929	1225
TEP-21	Letter of Support from University of Arizona	368	1225
TEP-22	Letter of Support from Tucson Metro Chamber	930	1225
TEP-23	Letter of Support from Southern Arizona Leadership Council	931	1225
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	1225
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	1225
TEP-26	Gateway Corridor Zone Overlay Map	872	1225
TEP-27	National Grid Report re Undergrounding high voltage electricity transmission lines	1035	1225
TEP-28	City of Tucson Chicanes Examples	936	1225
TEP-29	Letter of Support from Boys & Girls Clubs of Tucson	1225	1225
TEP-30	Supplemental Undergrounding Cost Analysis	1012	1225
TEP-31	Updated Project Cost Summary and Comparison	1057	1225

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INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-32	Updated Corridor Map for Preferred Route	1211	1225
TEP-33	Tucson Sentinel News Article re Street	1197	1225
BUMCT-1	Testimony Summary of Mark Barkenbush	37	1322
BUMCT-2	Witness Presentation	37	1322
UAZ-8	Excerpts of APS Exhibits from Line Siting Case 198	1208	--
UAZ-16	10th International Conference on Insulated Power Cables: Can cables last 100 years?	1174	--
UAZ-21	TEP-City of Tucson Franchise Agreement	1011	--
UAZ-59	Tables of Sargent & Lundy and Comparables	1186	--

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:05 a.m. on July 15, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns (via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public (via videoconference)
DAVE RICHINS, General Public
JOHN GOLD, General Public

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CHMN STAFFORD: All right. Let's go back on the record.

Now's the time for the continuation of the hearing for Line Siting Case 232.

I believe we left off on Friday, Ms. Grabel, you had Mr. Jocham. Am I pronouncing that correctly.

MR. JOCHAM: Yes.

CHMN STAFFORD: All right. He was in the middle of his direct still?

MS. GRABEL: That is true, Mr. Chairman. However, I think what we'd like to do is start with the cost comparison that the Committee asked for. I think that will be most efficient. And then we'll turn back to Mr. Jocham to complete out his testimony.

CHMN STAFFORD: Okay. Thank you.

MS. GRABEL: Sure.

So do you have in front of you -- have you handed it out yet? Okay.

We are actually going to bring Mr. Bryner back on the stand, so he's going to join this undergrounding panel.

You can't get out of the panel there, Mr. Bryner.

CHMN STAFFORD: And you're still under

oath.

And this is from -- you're looking at TEP-16?

MS. GRABEL: No. We are now looking at TEP-31. This is a new exhibit that was prepared over the weekend in response to this Committee's request on Friday.

CHMN STAFFORD: Thank you.

MS. GRABEL: And I'm going to ask Mr. Bryner to run through it.

But just to give you a little bit of overview, these are the two routes that the Committee inquired about on Friday. So this is our preferred route B-4 and the route that runs down Campbell, D-1. And it shows a total project to total project comparison.

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JASON JOCHAM and LARRY ROBINSON (Cont.), called as witnesses as a panel on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

CLARK BRYNER (recalled), called as a witness, joined the panel on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, was examined and testified as follows:

DIRECT EXAMINATION (cont.)

BY MS. GRABEL:

Q. So, Mr. Bryner, if you'd please kind of walk the Committee through the various columns and give an overview of what is included in each number in each column.

A. (Mr. Bryner) Sure. I'd be happy to.

So on this table, there are three main total project costs, all developed with different assumptions. But there's two columns before that. One is just your route alternative. And the route alternative is -- well, this is just a subset we have in this same exhibit. We have every route alternative. These are the ones that we

heard from the Committee that you are most interested in hearing from. But, in addition, we felt like you may have questions on the other routes, so we developed these costs for all of the route alternative segments.

So you've got that. You've got the total length of that alternative segment. And then you've got the three project costs.

Let me just talk about those real quick.

So the first column, "Total Cost As Proposed." So that's the project that we have in our application that we've proposed. "100 Percent Overhead For the Transmission." And those costs in there are inclusive of right-of-way, of engineering, purchase of materials and construction, as well as the addition -- and this is something that you may not always see -- as well as the addition of the underground cost to place that lower voltage distribution underground. And so it's -- it may be little more inflated for what you'd typically see for just transmission line of this voltage.

The fourth column, "Total Cost Undergrounding Gateway Corridor." That makes the assumption that there would be a requirement to place the transmission line underground anywhere -- anywhere where we parallel a Gateway Corridor Zone.

So you can see for Route B it's the same cost as

the total as our proposal. That's because Route B does not parallel a Gateway Corridor Zone, whereas Route D you do parallel a Gateway Corridor Zone for about half a mile from Grant Road down to Ring Road. And so you can see the added project cost.

Route 1, a lot of that route is located within a Gateway Corridor Zone, so you can see the reflected increase in the project cost.

And then Route 4, it's also not located within a Gateway Corridor Zone, so it's the same as your proposal.

Now, the last column over there, "Total Cost Undergrounding Gateway Corridor and University Area Plan," now that makes the assumption that there would be a requirement to place the transmission line underground both within a Gateway Corridor and anywhere it's within the University Area Plan area. And so for that one you do see increased costs for Routes B and Routes 4 but also for Routes D and 1 because now they'd go through the University Area Plan in areas outside of the Gateway Corridor.

Again, for all three of these costs, those reflect right-of-way, engineering, procurement or purchase of materials, and construction costs. And as applicable, those costs to place the lower voltage distribution underground.

So it should be an apples-to-apples comparison from one route to another to another.

Q. So, Mr. Bryner, just to clarify, in the areas where you assume here, so that's the total cost undergrounding Gateway Corridor and total cost undergrounding Gateway Corridor and University Area Plan, to underground the transmission line, do you also include the cost of undergrounding a distribution line?

A. (Mr. Bryner) Yeah. Yes. So we do as applicable in those areas where we would still do the underground distribution.

Q. So that is only where you're building the aboveground transmission; correct?

A. (Mr. Bryner) That is correct.

Q. So in the areas where you're actually going to be undergrounding transmission, would you also be undergrounding the distribution in those areas?

A. (Mr. Bryner) No, we would not be.

Q. Okay. Why not?

A. (Mr. Bryner) So as you heard Mr. Jocham testify last week, when you place -- well, placing the transmission line underground that creates heat that needs to dissipate. And when you place the distribution line underground, that also creates heat. And so you have this mutual heat creation that now needs to be

dissipated, and it lowers the rating of the line.

Q. Okay. Thank you.

And if I call your attention, please, to the asterisk on the route alternative where you say that, "The analysis contained in the slide assumes that the City of Tucson will grant a special exception for building overhead," can you elaborate a little bit more on that?

A. (Mr. Bryner) Yeah. So for Route 4 -- if you'll recall from the nightmare we went through last week explaining these routes in detail, where Route 4 crosses -- it's on Euclid crossing Broadway, so that's kind of Broadway is a Gateway Corridor, and Broadway is also the boundary between the University Area Plan.

And so we would need to -- so since Route 4 would have a perpendicular crossing of Broadway -- Broadway, we would need to get a special exception of the Gateway Corridor for that.

Within those special exception provisions, it has some language with respect to being in compliance with any specific area plans. And so we made the assumption that we would be able to get that special exception even though it also overlaps the University Area Plan.

Q. And so, Mr. Bryner, if the City of Tucson

refused to allow you a special exception because it could not make a finding that we were consistent with the University Area Plan, is it possible that the City of Tucson would require undergrounding in the preferred route?

A. (Mr. Bryner) It's possible.

Q. Would that increase the cost in that fourth column, "Total Cost Undergrounding Gateway Corridor" as to Route 4?

A. (Mr. Bryner) Yes. It would.

Q. Okay. Thank you.

And real quickly, how does the cost displayed on TEP-31 -- so what the Committee's looking at today -- compare to the cost calculation in the S & L report, which is TEP-17?

A. (Mr. Bryner) So these are going to be a little bit different numbers because the S & L report was a subset of these. So it took -- if you look at the "Total Cost As Proposed" column right there, so I kind of mentioned three different categories of numbers, right-of-way costs, engineering procurement and construction costs, and then the underground of the lower voltage distribution costs, and these are all reflected in our application TEP-1.

But it took those engineering, procurement, and

construction costs only, which come out to be a little over a million dollars per mile -- I think around 1.1, 1.2 million dollars per mile, generally there's a little variability between route -- and compared those with the same engineering, procurement, and construction, but in an underground scenario. So it was apples-to-apples but only a subset of the costs you see as the total project costs.

Q. And so the 14 to 22 percent multiplier that we identified in S & L report was comparing an entirely undergrounded segment with the same distance of an entirely aboveground segment; is that correct?

A. (Mr. Bryner) Yes. That's correct.

Q. And the costs identified on this screen have less of a multiplier because it's kind of a hybrid of the two. We got some of the cheaper aboveground and some of the more expensive belowground; correct?

A. (Mr. Bryner) Yes.

Q. Okay. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Just so I have this clear in my mind, Ms. Grabel and Mr. Jocham, as I'm adding the numbers together, I'm getting roughly $86 million for B-4 and $80 million for D-1; is that correct?

I mean, you didn't do the math so I did it.

CHMN STAFFORD: In looking at the total cost of underground in the corridor and the University Area Plan?

MEMBER GOLD: Yeah.

CHMN STAFFORD: Far right column? Okay.

MEMBER GOLD: So roughly those are the numbers. It's $6 million less to go D-1 as opposed to $6 million more to go B-4.

If you go D-1, you're putting transmission lines but not distribution lines on Campbell Avenue; is that correct?

MR. BRYNER: Yes.

MEMBER GOLD: The distribution lines on Campbell Avenue will remain aboveground just like the transmission lines; is that correct?

MR. BRYNER: Yes.

MEMBER GOLD: But the distribution lines in B-4 will now be underground because you're not running transmission lines there?

MR. BRYNER: I'm not sure that I'm following.

MEMBER GOLD: Okay.

MR. BRYNER: Okay. For the $85 million scenario?

MEMBER GOLD: Well, the -- yes. Let's take a look at the Campbell route and call that the expensive route in a commercial area just for layman's terms. We're putting for all intents and purposes giant telephone poles on Campbell Avenue where there are already telephone poles.

Then you're hooking on Grant Road to DeMoss Petrie, and you're putting giant telephone poles there again where there were already telephone poles.

But if you use this route as opposed to B and 4, you're bypassing almost all the residential areas.

MR. BRYNER: That's correct.

MEMBER GOLD: So the residential areas would see visual improvement in their areas if we go with the Campbell route as opposed to if we go with the preferred route through the residential areas --

MR. BRYNER: So if we --

MEMBER GOLD: -- is that correct?

MR. BRYNER: Sorry. Excuse me.

So if we were on -- if we were on D-1 and we were undergrounding the transmission line or overheading --

MEMBER GOLD: Overheading. I'm talking about overhead.

MR. BRYNER: -- the transmission, okay,

then B-4 within those residential areas, they would see no change from the current state.

The distribution lines going through B-4 today, those are dependent on -- the undergrounding of those distribution lines is dependent on us going down B-4.

MEMBER GOLD: So they would lose 45-foot lines, but they would gain 75-foot lines roughly spaced farther apart?

MR. BRYNER: In places where there are -- where there's distribution or the 46.

Now, the one caveat to that would be the 46kV lines, those go away regardless of the scenario.

CHMN STAFFORD: Within 10 years, though; right?

MR. BRYNER: Within -- yeah, within 10 years.

MEMBER GOLD: But they would go away along Euclid Avenue and Park Avenue, in that area?

The residential areas, they would go away?

MR. BRYNER: There is some 46 on Euclid that -- or that it crosses Euclid that would go away. The lines on Park and on Euclid are primarily those distribution lines that would be placed underground if we went down those routes.

MEMBER GOLD: Okay. But assuming we don't go down those routes nothing changes in those areas?

MR. BRYNER: That's correct.

MEMBER GOLD: Gotcha. Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I apologize, but would it be possible for the applicant to send copies of the new exhibits to Tod so that I can pull them up on a different computer or print them out so that -- because when remotely as soon as it goes off the screen, I don't have reference to it. It would be very helpful to me.

MS. GRABEL: Absolutely, Member Little. We're doing that right now.

CHMN STAFFORD: And Member Somers too as well. He's also remote. So I'm sure he'd like to see these.

MS. GRABEL: We'll just send them to Tod.

CHMN STAFFORD: Okay. Perfect.

MEMBER LITTLE: Thank you.

MS. GRABEL: Certainly.

MEMBER SOMERS: Yes. Thank you.

MS. GRABEL: All right. Thank you.

BY MS. GRABEL:

Q. Mr. Bryner, I think you mentioned that there are

certain special exceptions we might need to apply for if we were required to underground in a Gateway Corridor; is that correct?

A. (Mr. Bryner) Yes.

Q. And with respect to the University Area Plan is it the company's position that the language in the University Area Plan does not require us to go belowground?

A. (Mr. Bryner) That would be the company's position, yes.

Q. Is the company's position that it would only -- that the University Area Plan would only require undergrounding if it was incorporated into some perhaps zoning decision by the City of Tucson?

A. (Mr. Bryner) Yes.

Q. Zoning change decision?

A. (Mr. Bryner) Yes.

Q. Does the company believe it needs to undergo any zoning change in order to build the preferred route in this case?

A. (Mr. Bryner) No.

Q. Or any of the routes in this case?

A. (Mr. Bryner) No.

Q. Okay. Thank you. That's all I have on that.

MS. GRABEL: If the Committee doesn't have

any further questions on the cost comparisons, I think --

MEMBER GOLD: Mr. Chairman, I have one more question.

MS. GRABEL: Certainly.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Just to make sure I'm reading this correctly, the total cost to underground in Gateway Corridor is putting the transmission lines underground; is that correct?

MR. BRYNER: When in the Gateway Corridor?

MEMBER GOLD: Yes.

MR. BRYNER: So it's kind of a hybrid of overhead and underground.

MEMBER GOLD: But the cost as proposed is all overhead?

MR. BRYNER: Yes.

MEMBER GOLD: Thank you.

CHMN STAFFORD: Ms. Grabel.

MS. GRABEL: Okay. Thank you.

I guess we'll turn back to Mr. Jocham.

If we could put TEP-16 back on the screen. That was the underground analysis presentation. Thank you.

BY MS. GRABEL:

Q. Now, Mr. Jocham, I think we left off talking

about reliability.

And if there's anything you'd like to pick up talking about on that slide, that would be helpful.

A. (Mr. Jocham) Yeah.

Q. Are you not able to advance?

A. (Mr. Jocham) Hey, Grace, this won't advance. There it goes. Thank you.

Okay. I think we touched on everything in regards to maintenance and reliability, but there was one thing that I do think we kind of breezed over in an effort to get to that maintenance and reliability.

So just to retouch on the report that was written as Mr. Bryner mentioned, this is a cost estimate that is apples-to-apples for engineering, procuring, and constructing a pure overhead line to a pure underground line.

It was looked at in three different areas, mainly three different scenarios, a major arterial such as Campbell, and then we were looking at two more residential streets as an apples-to-apples comparison to determine a dollar-per-mile impact.

Generally from that cost estimate and going out to the vendors we -- just a few things to point out. So we did go out and receive major quotes on this project, mainly the cable.

So the cable for this underground project was quoted at 54 times greater than what an overhead cable would cost, and that's at $243 a foot mainly driven by the price of copper. So we did identify what that price of copper was as a part of this quote, and the cable cost is contingent on that price of copper changing, which is extremely volatile right now, in all honesty. So it could go down, it could go up, but that's what the quote was based off of the time that we did receive it.

And just as another point of reference, that actual quote is -- for the cable itself is 6.5 times great than the whole construction of the overhead transmission. And, again, that is just engineering, procuring, and constructing the line. That does not include anything such as real estate, right-of-way, et cetera.

In addition to that, we did use quotes from similar-type projects in this region, including traffic control, equipment cable testing, and mobilization costs as a part of this cost estimate. So just a few things that we didn't get to touch on on Friday that I wanted to make clear.

And I think that finishes out the presentation, Meghan.

Q. All right. Thank you very much, Mr. Jocham.

Before we move on to -- I want to have you put on the record a little bit of a discussion about the Underground Arizona website and the allegations made on that website.

But before turning to that, I think it might be helpful to summarize the difference in constructing a transmission line belowground and constructing a distribution line belowground.

And so if you and Mr. Robinson could please give that for the Committee, that would be helpful.

A. (Mr. Jocham) Sure.

Generally, transmission line installation underground we utilize special bonding methods to help reduce the circulating current on the conductor, which helps the ampacity rating.

That's mainly because transmission lines are point A to point B. And so we use the concentric neutral on the transmission line cable to allow the voltage to build up a little bit, and which helps the ampacity, helps the circulating current, and allows the conductor, the cable itself, to operate a little more efficiently.

And because of that, we install a separate what is called a ground continuity conductor, which acts as your grounding conductor. So if a fault was to occur, that would be your operating mechanism to help that fault

to ground.

So that differs from distribution just from an operational perspective, whereas a distribution system is multipoint bonded, so basically every time you splice a conductor or every time you run into a vault you ground with that concentric neutral, so that concentric neutral is not -- or the GCC on a distribution system is not present.

Transmission is installed in a concrete duct bank with multiple conduits, a single cable to conduit. We also install communications in that duct bank. As I mentioned prior in my testimony, you also install a distributed temperature sensing system or DTS system to help monitor and operate the transmission line. Distribution does not have that.

And then -- and then obviously the GCC.

So there's multiple other conduits which are typically not installed on distribution.

So a much bigger system as a whole.

And I can let Larry touch on other aspects of distribution that may be different from -- from an underground transmission perspective.

A. (Mr. Robinson) Sure. For a few things that I just want to confirm, though.

Installing transmission underground is not

impossible. It is possible for us. We want to acknowledge that as a power company. It's just not as simple and as easy as it's kind of been portrayed already here in this hearing and I'm sure will continue to be portrayed going in the future.

It's very difficult. The impacts to the community are high. You know, there's a lot of road closures and things like that. The maintenance and the requirements for maintenance are significantly different than overhead transmission lines.

And I just want to also confirm that from our perspective, this underground is not required from a safety or reliability of the transmission system. It doesn't do anything for us from that perspective.

I also want to talk about from a distribution perspective, we do have a significant amount of our system underground distribution, and we regularly install underground distribution. The tools, they're off the shelf. They are -- the supply chain is much better for distribution. The equipment that's necessary to install it, to maintain it, to troubleshoot it is -- is available.

And I just want to also acknowledge and confirm that TEP does not have the skill sets or the manpower or the tools to troubleshoot, install, or maintain 138

transmission voltage.

So those were a few things that I wanted to add to that.

Q. Thank you, Mr. Robinson.

And does an underground distribution facility require a trench?

A. (Mr. Robinson) It does.

Q. Does it require the same type of infrastructure that a transmission trench requires?

A. (Mr. Robinson) No. It's much smaller.

Fewer conduits, lower operating temperatures, and easier to pull maintenance on.

Q. Thank you.

Going back to you, Mr. Jocham, unless the Committee has any follow-up on that.

MEMBER GOLD: I have one more follow-up question.

MS. GRABEL: Certainly.

MEMBER GOLD: When I do the math, I see the costs for undergrounding is about between 80 and $86 million depending on which route you choose.

If you do overhead with just undergrounding the distribution lines, it's between 20 and $22 million.

That's a difference of four times, not 10 times.

Why do you have 10 times up there?

MS. GRABEL: Mr. Jocham, do you want to address that question?

MR. JOCHAM: Yeah. So in this particular scenario or the TEP-31 that was shared, the $86 million is a hybrid scenario. That is not entirely underground. There's still underground -- overhead transmission that is part of that number.

MEMBER GOLD: Yeah. But I'm looking at your number just while you're saying that, and for the D area the difference between total cost to underground is 22 million and total cost underground and everything else is 26 million. That's a small difference. So the majority of the cost in your Gateway Corridor is undergrounding.

MR. JOCHAM: So the total cost is undergrounding in the Gateway Corridor and the University Area Plan. So where the alignment is not within those, it is still overhead. And so that number is a hybrid number. It's not explicitly underground.

And then in addition, the number that is in the total cost as proposed includes the undergrounding of distribution, which inflates that number. Whereas the total cost to underground in Gateway Corridor and University Area Plan where the transmission line is

underground, that distribution line is no longer undergrounded. That cost is removed.

MEMBER GOLD: So it's actually three times as much for just the D portion route to go underground?

MR. JOCHAM: For the project, yes.

MEMBER GOLD: For the project and --

MR. JOCHAM: Just transmission to just transmission, so just overhead transmission to just underground transmission. And just engineering, procuring, construct is where that 10, 14 to 22 number comes from.

MEMBER GOLD: Understood.

So in the D portion it's three times higher, in the 1 portion, it's five times higher.

But what we're not showing here is the massive disruption to the community, to the area by doing this underground.

MR. JOCHAM: Correct.

MS. GRABEL: Member Gold, I think it might be helpful if we looked at a map, because I think your question will be answered to see exactly how much it's aboveground versus underground. It's a very small amount that's underground that's resulting in that three times because most of Route D is an aboveground transmission construction.

So if you see the DeMoss Petrie to Vine on Route D is green, the vast majority of that running from DeMoss Petrie to Vine does not go through a Gateway Corridor, does got go through University Area Plan, so it is allowed to stay aboveground. So that's the lower cost of an overhead transmission line.

It's that smaller portion going from down Vine into the Vine Substation that -- no?

CHMN STAFFORD: It's down Campbell.

MS. GRABEL: Oh, that's on D. Thank you.

Going down Campbell and then into the Vine Substation, that smaller amount would be required to be undergrounded under the University Area Plan and the Gateway Corridor, and that smaller undergrounded portion is what results in the three times cost multiplier.

MEMBER GOLD: But then going down Campbell Avenue to Kino, how much of that is underground?

MS. GRABEL: That is Route 1. And so that's --

MEMBER GOLD: Yeah. That's the one I'm talking about.

MS. GRABEL: All of that would be undergrounded.

MEMBER GOLD: Exactly the point I'm making.

MR. ROBINSON: That's not correct.

MS. GRABEL: Oh, sorry. Go ahead and correct me.

MR. ROBINSON: So on Route 1 underground the underground portion is -- there's two options, right? There's the overall area plan option that has this section underground and then underground to right here where Route 1 breaks away from Kino Parkway and Campbell.

From Campbell south to Kino is overhead -- is an overhead route. So that is not all -- that is not all underground. This is all aboveground. So about 50 percent of that route is aboveground.

MEMBER GOLD: Mr. Robinson, thank you.

My next follow-up question is on Campbell Avenue from roughly the Arroyo Chico Wash north to the Vine Substation --

MR. ROBINSON: That's correct.

MEMBER GOLD: -- to do that underground would require a tremendous disruption in all commercial activity, traveling, and everything else blocking streets.

How long would that take to construct it, that area underground in your estimation?

MR. ROBINSON: So Mr. Jocham talked a little bit about the difference in time perspective.

We think that that construction of that

route would take us about a year, year and a half to get done.

And conversely overhead it would take us about four months.

MEMBER GOLD: And if you were to start that project -- let's assume somebody says, yes, go ahead, do it underground -- when would it start, your opinion?

This is July 2024; we have a suspense date of 2027 to complete the project.

How long until you start and then a year from that?

When do you estimate you could begin?

MR. ROBINSON: For the detailed design and all of that -- and this is just an off the top of my head, Member Gold.

MEMBER GOLD: I won't hold you to it.

MR. ROBINSON: I'm going to say that it's going to take us probably 18 months to go through a detailed design from the time that we're given a route corridor before we can place the material order. So then another six months to nine months of supply chain, and then we start.

So really two years from now we would start construction and finish three and a half years from now.

MEMBER GOLD: So three and a half years

from now.

And now this is a question to Mr. Chairman.

How long politically would it take for them to get approval to do an underground route?

What is your estimation?

CHMN STAFFORD: Oh, I couldn't begin to speculate. I can just tell you the process how it comes from the Committee to the Commission. Once the Committee issues its decision, the Commission has to act on it not any earlier than 30 days but no later than 60 days.

And then, of course, I guess, the parties would -- they have 20-day window to request a rehearing.

And then if that's denied, they have 30 days to file an appeal in Superior Court.

But, I mean, I don't think the utility can wait for those to shake out. They need to get something from the Commission and start construction one way or another to get this project online by 2027 so they can maintain their reliability.

They've shown us clearly that this whole system is at maximum capacity. They need this upgrade to be able to reliably provide service. I guess in the meantime if they don't get the transmission line, they have to keep putting band-aids on their distribution system, the 40 -- is it 46 or 48?

MR. JOCHAM: 46.

CHMN STAFFORD: -- 46kV system to just keep the lights on and more importantly the ACs on.

So, you know, I think a decision has to be made and they have to execute on it because they have to get -- they need to know what they're doing because based on the time line he's say that they're not going to have it in service until probably 2028 based on the number -- the time frame I'm hearing.

MR. ROBINSON: That's an accurate estimate.

CHMN STAFFORD: Okay. So then you'd have -- they'd have to be -- at the same they're doing this -- they have to put more band-aids on the 46kV system.

MEMBER GOLD: And if I understand this correctly, '28 is a good estimate. I would bet '29 or '30.

And the reason I'm concerned is last night with this storm we had, again, this is the first time I've ever lost power for more than 45 minutes. So we had no power in an entire area of Tucson that I was in and I don't know how many others from six o'clock at night until four o'clock in the morning. And this is only going to get worse because everybody's anticipating the weather's going to get worse.

But it looks to me -- and I'm just giving you an opinion -- you know, I know we're going to vote on this later, but my opinion is this undergrounding is untenable. It doesn't reach a suspense date which could cost people's lives, not to mention the ridiculous expense and disruption to the community.

That's just my opinion, Mr. Chairman.

MEMBER RICHINS: Mr. Chairman.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: A few minutes ago, I just want to confirm, did you guys testify that undergrounding in this instance is not necessary for grid reliability or resilience; is that correct?

MR. ROBINSON: Safety and grid reliability. So what I was testifying to is we don't have to put it underground to make it safe and reliable. The overhead project, this project overhead, will meet all of our safety and reliability aspects or requests.

MEMBER RICHINS: Is it true that underground power lines are more resilient to weather extreme events?

This is -- the literature I've been reading has been indicating that.

Do you guys find that to be true as well that underground infrastructure could be more resilient?

MS. GRABEL: Mr. Jocham, why don't you address that question.

MR. JOCHAM: In hurricane-prone situations, you know, the southeast, you're seeing utilities underground distribution. Because those are much smaller poles, they are not designed to the resiliency that transmission-level voltages are designed to. So a lot of literature that you will read is undergrounding medium to low voltage circuits.

MEMBER RICHINS: So 2021 there was a report released by the feds talking about that issue, and it wasn't limited to the southeast. It was the northeast where you have the ice storms, the Midwest where you have bomb cyclones that you're seeing this trend for grid resilience.

The reason I'm asking about this is because Mr. Gold just complained about losing power for 10 hours, and that's an overhead distribution system that he lost power through.

So and then in the next sentence we talked about now we've lost -- you know, if you want resilience, I mean, you can't have both. I just --

MEMBER GOLD: I wouldn't say that.

CHMN STAFFORD: One at a time. One at a time.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Wait. Wait.

Member Richins has the floor.

MEMBER RICHINS: So what I'm getting at is it in your opinion that undergrounding in this instance is only for aesthetic reasons?

MR. ROBINSON: For this project?

MEMBER RICHINS: Yes.

MR. ROBINSON: Yes. We actually believe that the overhead with a -- the redundant loop feed is more reliable than what potentially the underground with a loop feed would be.

MEMBER RICHINS: Okay. Thank you.

Mr. Bryner, are you still -- are you a part of this panel again?

I'm trying to remember if we --

MR. BRYNER: Yes, I am.

MEMBER RICHINS: Should you do a major undergrounding of the transmission system through one of these routes, and commending the incredible outreach you guys did to get you to this point, would it be safe to say that TEP would have a pretty robust outreach system for businesses and affected residents along that route that would enable them to stay in business and access their properties?

MR. BRYNER: Okay. So let me just make sure I'm understanding right. So you asked me a bit about our outreach, but then you were also asking about the underground?

MEMBER RICHINS: No, not asking about outreach.

MR. BRYNER: Oh, just --

MEMBER RICHINS: In the past outreach at least.

No, in the event that you need to construct a route underground --

MR. BRYNER: Okay.

MEMBER RICHINS: -- the question is do you have in place outreach that will help minimize those impacts to businesses and residents?

I can't manage that you're going to leave them to navigate around a project at -- you know, with no stance.

I mean, I think of the light-rail project that got built in the Phoenix area and that they had specific line sections and citizens committees to help make sure that residents and businesses were able to withstand the impacts.

The question is do you have something similar to that?

MR. BRYNER: Okay. I understand what you're saying now.

So, yes, so we -- regardless overhead, underground we do have mechanisms that we reach out to and notify anyone who'll be affected by any of our construction projects to let them know and to, you know, minimize any of those disturbances. And so, yeah, we would put that in place.

MEMBER RICHINS: And, yeah, and then just kind of closing out the previous, so if we were to avoid -- well, I guess never mind. I'll withdraw that question. Thanks.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Regarding the recent outage that I just made reference to, what caused it?

MR. ROBINSON: You're referencing the storm that occurred last night?

MEMBER GOLD: Yes.

MR. ROBINSON: That was a microburst with very high winds. If you watched -- if you tracked the weather, it crossed the entire valley.

MEMBER GOLD: And what did it break?

MR. ROBINSON: We're still doing damage assessment on that. But right now I believe the pole

counts at 42 poles in multiple -- multiple locations. I want to say around 32,000 customers out of power at its max. Today I think there's 5,000 customers still out of power.

MEMBER GOLD: Of the 42 poles how many were steel?

MR. ROBINSON: I don't know the answer to that question.

MEMBER GOLD: Do you think any of them were steel poles or were they all the old wood poles?

MR. ROBINSON: I don't believe any of them were steel poles, but --

MEMBER GOLD: Okay. That's why I believe your project updating the wood distribution poles with the 4k or the 14k up to the 41k --

MR. ROBINSON: 46kV.

MEMBER GOLD: 46kV would be a massive improvement, improve redundancy, safety and security. Just my opinion.

And I want to thank you for your prompt action.

MR. ROBINSON: Okay. You're welcome.

CHMN STAFFORD: So do you know -- one second.

Do you know if the -- all the 42 poles you

mentioned, those were all part of the distribution system, not the transmission system?

Do you know that?

MR. ROBINSON: They are all part of the subtransmission and distribution system. We did have a couple 46 poles that fell in last night's storm.

CHMN STAFFORD: So none of it was 138kV or higher then?

MR. ROBINSON: That's correct.

It's one of the reasons why we think from a safety and reliability perspective and a loop feed that overhead is -- meets the needs of the community.

MEMBER GOLD: Hear, hear.

CHMN STAFFORD: Okay. Thank you.

I saw a hand down there.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Now that Mr. Bryner is on the panel, perhaps I could ask the question that I asked last week, which is I'm wondering to what extent the neighborhood organizations and the public have been made aware of the information that we were given last week about exactly -- not exactly, but generally what is required to put a line underground?

Because, you know, people just blithely

say, well, underground it, underground it. And, you know, the difference between what is required to overhead a transmission line and what is required to underground a transmission line is pretty significant.

In addition, the difference between undergrounding a distribution line and undergrounding a transmission line is pretty significant.

And I'm wondering if some of the neighborhoods might not be a little less anxious to have everything undergrounded if they realized the extent of what is involved.

MR. BRYNER: Yeah, Member Little. I'd be happy to address your question.

So in all of our public outreach that we did -- or, sorry, in all of our public open houses that we did, so the four that we held, we had various stations that folks could go to learn about different aspects of the projects. One of those stations was a comparison of overhead to underground. So we had some basics of the differences between the two, and we had an engineer there to speak to it.

Again, from a TEP company perspective, we don't have the experience on undergrounding transmission, so we didn't have somebody like Mr. Jocham was not there to answer their questions. So we answered them from our

perspective and shared that information. But it was not a focus of our outreach on what we were trying to educate the public on.

MEMBER LITTLE: Okay. Because I thought that might be the case because the things I'm hearing are cost related. Comments are about the differences in cost, not the differences in the actual physical inconvenience.

Thank you.

CHMN STAFFORD: Thank you.

Ms. Grabel.

MS. GRABEL: All right. Thank you. I think if the Committee has no further questions on this subject, we'll turn to Mr. Jocham.

BY MS. GRABEL:

Q. And, Mr. Jocham, have you had the opportunity to review the Underground Arizona website?

A. (Mr. Jocham) I have.

Q. And specifically have you had the opportunity to review the portion of that website devoted to discussing the cost and maintenance of underground transmission facilities?

A. (Mr. Jocham) I have.

Q. Do you have any comments you would like to make on that section?

A. (Mr. Jocham) Yeah. So in regards to costs, a lot of references were made to APS 69kV lines. In this scenario, not really an apples-to-apples comparison. 69kV cables are more standard. They use standard off-the-shelf materials much like distribution, cold term splices, and can be installed by SRP crews, which is just it is a different process overall.

And so from a cost comparison, it's just not quite apples-to-apples to what this is at, you know, two 6,000-kcmil cables per phase. APS was installing a single I think it was 2,500-kcmil conductor, which is a much smaller conductor and can use standard off-the-shelf equipment and materials to install it.

Q. So, Mr. Jocham, let me interrupt you. So you're referring to the portion of the website in which Underground Arizona compares an APS overhead transmission facility cost to an APS underground transmission facility cost; correct?

A. (Mr. Jocham) Correct. At the 69kV level.

Q. And 69kV -- I misspoke -- isn't transmission, it's actually sub transmission; correct?

A. (Mr. Jocham) Correct.

Q. And you said that those were off-the-shelf components?

A. (Mr. Jocham) The majority at 2,500-kcmil

materials and equipment are off the shelf.

Q. Okay. And so that is probably closer to the TEP's undergrounding distribution components; correct?

A. (Mr. Jocham) It's right in the middle. Yeah. I mean, equipment types, yes.

Cold term splices -- or cold terminations are very similar to distribution. But it would still be put into a duct bank with multiple conduits, so it's kind of -- it's a middle ground.

Q. Thank you. And that project Underground Arizona website referred to, that's an old project, isn't it?

A. (Mr. Jocham) So the 69 he -- the website did reference multiple projects. Some of them being newer, some of them being older.

Q. And how old in some cases?

A. (Mr. Jocham) Going back to the early 2000s. That's -- there were a few, I believe.

Q. And have costs increased over the past twenty-something years?

A. (Mr. Jocham) Yeah, definitely within the last five copper prices have substantially increased.

Q. Do you recall the discussion in the Underground Arizona website of reconductoring a 40-year-old project?

A. (Mr. Jocham) Yeah. There was reference made to an active APS project undergrounding -- or a conductor

replacement on an oil-filled pipe underground transmission line, which is, I believe, APS's central Phoenix project, which runs generally in the Midtown downtown region.

But that project in particular is just a conductor replacement. The pipes are already in the ground. They've been in the ground for 40 years. They're replacing the conductor to ensure reliability of that conductor. It's a standard maintenance for that type of project.

Oil-filled pipe, high fluid-pressure filled pipes are not what's being proposed on this project. This is an XLPE cable, so no -- no fluids at all. That particular project and system has pump stations located, and it pumps oil through to keep the conductor cool and insulate the conductor. So that definitely is not an apples-to-apples comparison with this project.

Q. Thank you, Mr. Jocham.

And that example you just gave with the 40-year lifespan, is that consistent with the literature you've read about the lifespan of underground transmission facilities?

A. (Mr. Jocham) That's similar to the lifespan of an XLPE cable. As I mentioned in my previous testimony, EPRI, which is a nonprofit for the advancement of the

electrical industry, recommend -- or identifies a life expectancy of XLPE cable to be approximately 40 years.

Q. All right. Thank you.

And I believe the Underground Arizona website also has an analysis of the recent Salt River Project HIP line; is that correct?

A. (Mr. Jocham) Yeah, the HIP project, which is the Intel project.

Yeah, that -- the 1.5 cost difference between overhead and underground there can maybe be a little confusing.

The math on the website identifies the $17 million difference identified by the City of Chandler, but that $17 million is the difference between overhead and underground, not the total cost of underground.

And then it was divided by the total cost of overhead, which is inclusive of right-of-way, so definitely just wasn't apples-to-apples.

In addition to that, the APS line at 4 point, I think, $3 million a mile, which was part of your -- part of the CEC filing, that was a double circuit 230kV line with double circuit 69kV underbuild. It was a substantial structure and a substantial alignment. Quad circuit configuration, not single circuit configuration.

Q. So, Mr. Jocham, just to clarify for the record, the APS line you're talking about now is an aboveground transmission line; correct?

A. (Mr. Jocham) Correct. That was --

Q. So the analysis was comparing the SRP HIP project underground to an APS overhead line; correct?

A. (Mr. Jocham) Correct.

Q. And the APS line was a pretty big line?

A. (Mr. Jocham) Yeah. It was double -- double circuit 230, double circuit 69kV.

Q. Would you say that's substantially different from the 138kV line we're talking about today?

A. (Mr. Jocham) Much different.

You're looking at 140-foot-tall custom poles. Whereas this project is I think we -- it's identified -- Larry has --

A. (Mr. Robinson) Yeah. From 75 to 90. 85 I think is what our standard pole will be. But crossing the Aviation Highway is where we talked about we might need to be as high as 130 feet for those couple spans.

Q. Okay. And we might have already beat this dead horse, but I think that the Underground Arizona website talks about the increased reliability benefits of an underground transmission line compared to an aboveground.

Do you have any additional comments you'd like

to make other than what we've already talked about through Mr. Robinson's testimony earlier?

A. (Mr. Jocham) Yeah. I think we had submitted a filing, it was TEP-27 if I'm not mistaken. It's the national grid document, which identities that there was a study performed in Europe that identifies overhead and underground reliability to be approximately the same while underground always costing more.

Q. Okay. Thank you. No further questions.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: For Mr. Jocham again.

You just mentioned that UK study. In that, as I recall reading it, it showed quite vivid photographs of the size of the trench and pumping stations and so on and so on.

I was wondering is that something that could be expected in this project if it were undergrounded and say as we spoke from the mile and a half from Arroyo Chico up to Vine Station?

MR. JOCHAM: I'll say the national grid document was speaking maybe more in generalities, but they did identify that up to four conductors per phase could be required to meet the same ampacity requirements.

That isn't the case for this project. It

was determined that two cables per phase is sufficient to meet the demands as required by the project.

Installation in Europe is slightly different, but we would be at a more compact trench just purely due to the urban environment. Whereas maybe in a more rural environment you could experience a wider trench to help with some of the mutual heating impacts that underground lines can experience.

MEMBER KRYDER: But the limitations that you spoke about Friday and briefly touched this morning as regard to the amount of time whether it's a trench five feet wide or eight feet wide, five feet deep or 20 feet deep, I'm trying to get -- I'm trying to understand how much time -- if this went up Campbell Avenue, for example, and was undergrounded, the transmission portion of it was undergrounded, we're really talking about a lot of time to have this closed?

MR. JOCHAM: Yeah. Correct.

The project will work linearly, to make sure that we're being as clear as possible. But, yeah, you could expect durations from I think Mr. Robinson said -- identified approximately a year, maybe even further dependent on what you run into.

I think that's the one thing that we don't understand at this point. This is all -- you know, these

are estimates based off of known data, but we don't know what's underground along Campbell Road or any of the other roads for that matter.

I think one of the public did even mention that he worked for the City water group, and he very clearly stated that you guys have no idea what is under these roads, and it's going to be very difficult.

MEMBER KRYDER: Thank you very much for the clarification.

CHMN STAFFORD: Ms. Grabel, does that conclude the direct for this panel?

MS. GRABEL: It does. Yes.

Thank you, Mr. Chairman.

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: I have a question.

So we heard the time frame for undergrounding could take up to three years?

MR. JOCHAM: So that includes engineering in that number. But during the engineering phase, there will be processes where we would need to get out as engineers and do certain aspects to help the engineering process along.

A few of those things would be utility locates. And in the case of underground, we would do a

Grade A utility locate, which means potholing or taking an excavate -- or a VAC truck out and actually excavating utilities, getting depths so that we understand not only where the utilities are located but how deep they are so that the trench can be designed accordingly.

But then we would also have some geotech efforts to understand the capabilities of the soil as well to dissipate the heat.

So just there would be -- the heavy construction period would be between a year and a year and a half as Mr. Robinson testified. But there would be other disturbances and interferences during the design phase as well as we gathered information to support the design.

MEMBER MERCER: So compared to overhead, what's the time frame?

MR. JOCHAM: So overhead, I think we had mentioned about one to two months per mile. And so as a -- Campbell Avenue is kind of what we keep referring back to to discuss, and that's the one to 18-month period that Mr. Robinson identified. That same window would be approximately three to four months to construct overhead.

MS. GRABEL: Maybe put a finer point on it. Mr. Robinson, how long do you think it would take TEP from now until in-service date if we were given the

authority to construct this project aboveground?

MR. ROBINSON: If we built this project aboveground, we could have it in service by early 2027 or mid-2026. It's going to take us about a year to engineer and get the procurement and about six to eight months to build the lines.

MS. GRABEL: All right. Thank you.

MEMBER MERCER: Thank you.

CHMN STAFFORD: As compared with to underground it --

MEMBER MERCER: Three years.

CHMN STAFFORD: -- about twice the time frame?

MR. ROBINSON: Yeah. I think twice the time frame. And, again, it's an estimate sitting on -- considering me sitting here in the room.

CHMN STAFFORD: All right. So they're now available for cross-examination? Yes, Ms. Grabel?

MS. GRABEL: Yes, Mr. Stafford.

CHMN STAFFORD: Ms. De Blasi, you're up.

MS. DE BLASI: Mr. Chairman, Banner does not have questions for this panel.

CHMN STAFFORD: All right. Mr. Lusk.

MR. LUSK: Thank you, Chairman.

Excuse me. I apologize. I was up a little

bit late cutting down some trees. I'm sure people can relate.

CROSS-EXAMINATION

BY MR. LUSK:

Q. I want to nail down the time line that was just discussed just so we can all be clear because it's slightly confusing.

As it relates to just Route 1, Campbell Avenue, as that is in the Gateway Corridor, I've heard the estimate that it's about a hundred feet per day for excavation; is that right?

A. (Mr. Jocham) Correct. That is a typical construction installation.

Q. In the case of undergrounding on Campbell Avenue, would it require more than one crew, I guess, excavating at the same time?

A. (Mr. Jocham) I wouldn't say necessarily required, but it is a possibility that you could have multiple crews working at the same time.

Q. I guess, well, maybe my question should be for Mr. Robinson.

Is that -- would that be contemplated by TEP?

A. (Mr. Robinson) Potentially, yes.

Not -- because of the underground, again, tieing

into the two segments and not working continuously, there's some risks associated with having to reconstruct some areas if they don't align.

But potentially we could have multiple crews.

Q. So and please don't let me pigeonhole. I'm not suggesting you should have two crews.

A. (Mr. Robinson) Yeah.

Q. I'm just trying to figure out are you -- would that be the plan, I guess, to have two crews?

But it sounds like it wouldn't be.

A. (Mr. Robinson) Yeah. So our approach to distribution on the civil side to get the conduit in the ground --

Q. Sure.

A. (Mr. Robinson) -- is not to deploy multiple crews while we're -- while we build that civil underground linearly.

Q. Okay.

A. (Mr. Robinson) So, again, we don't have experience with putting this type of facility underground, and I would assume we would try to apply that same construction practice.

Q. That makes sense.

So then what we're really talking about in terms of closures is a hundred feet per day?

A. (Mr. Jocham) No. That's the excavation. That excavator would then move down the road. While that trench stays open, additional work is being performed in that trench. And so you're looking at a thousand-plus feet of lane closures or road closures during the duration. Because it's a hundred feet a day for the excavator to actually excavate out the trench, but then you're coming behind that excavator putting in trench box, conduits, pouring the concrete, letting the concrete cure, covering the concrete up after it's cured and then re-asphalting the road.

Q. And that would stay open, that thousand feet would stay open or --

A. (Mr. Jocham) It would be --

Q. 24/7?

A. (Mr. Jocham) It would be open. You could cover it with steel plate to allow public assess to businesses and things like that if the contractor was required to do so.

Q. And, Mr. Robinson, I think you're familiar with construction in the City of Tucson.

Would you be required to do so?

A. (Mr. Robinson) We would be required to maintain traffic control over those areas. So even if the trench is covered with steel plates, I don't think we would be

allowed to open up unrestricted traffic flow with no traffic control for long periods of time.

Q. And define "long periods of time."

A. (Mr. Robinson) Multiple months.

Q. Well, we're not talking about multiple months, though, right, because a thousand feet would be excavated and be worked on, and then the next thousand feet would be excavated and worked on, right?

A. (Mr. Jocham) They would work linearly --

Q. Right.

A. (Mr. Jocham) -- down the project path.

And so after that area was re-asphalted and re-striped, then you could reopen that section of road back to the public before the cable was pulled in.

There will be periods of time that you're going to have to reclose down areas again around vaults to do conduit proofing, testing, et cetera.

So it's not that it's -- the traffic control for underground will vary over the life of the project, and it will ebb and flow as the type of work that's being performed.

Q. But what we're not talking about is a year where the entire stretch of the undergrounding on Campbell will be unavailable; correct?

A. (Mr. Jocham) Correct.

Q. And I think you mentioned again the hundred feet per day.

And we're talking about 1.8 mile stretch on Campbell; is that right?

A. (Mr. Jocham) I believe that's the length. Yes, that was estimated.

Q. So in my math -- and I'm a lawyer so my math is not great, but in my math that's about 95 days of excavation, correct, at a hundred feet a day?

You guys are engineers. You should know this.

A. (Mr. Robinson) Yeah, I just didn't run that number, but --

Q. You can see how I got the number, right, by just dividing it?

A. (Mr. Robinson) Yeah. I mean, that -- that also doesn't include anything for relocation of existing conflicts and --

Q. Sure.

A. (Mr. Robinson) -- things like that that would have to occur over the course of the project.

A. (Mr. Jocham) Well, sure. Yeah. And that's open trench, too.

So that doesn't include the cable installation. That doesn't include the proofing. That doesn't include testing and commissioning. I think we estimated

approximately -- if everything went as smooth as possible, the stretch along Campbell in our report I think identifies a nine-month period.

Q. Right. And can you talk about -- so you said proofing, testing, cable. Well, you said the cable pulling happens after, so you -- excavation and all that, right?

A. (Mr. Jocham) You proof -- yeah.

So once the civil work is complete, you will proof the conduits. And what proofing is is you basically pull they call it a pig, but it's basically a metal -- or, excuse me, it's a wood round dowel that they pull through the conduit that's approximately the same inner diameter -- the same diameter as the inner diameter of the conduit to make sure that there are no sharp edges and obstructions within the conduit that can damage the jacket and subsequently damaging the conductor.

Pull that through, that takes a period of time depending on how many conduits you have present in your duct bank. And then at that point you would pull your cables through. You would splice those cables with cables this size. And be it that they're segmented, it would take approximately a day to maybe even a day and a half to splice each cable together.

And then at that point you would test and

energize.

Q. So the proofing, testing, and pulling the cable through, that all occurs after the excavation and --

A. (Mr. Jocham) Correct.

Q. -- laying in the conduit and that sort of thing?

A. (Mr. Jocham) Yeah.

Q. So that happens between the vaults; is that correct?

A. (Mr. Jocham) Yeah.

Q. So that doesn't require any traffic control or anything?

A. (Mr. Jocham) Correct. You would have traffic control limited around the vaults --

Q. The vaults themselves?

A. (Mr. Jocham) -- at that time.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I don't know if this should be -- who to direct this to, possibly Mr. Lusk.

When you're excavating -- let's take a worst-case scenario. You're excavating Campbell Avenue. And we're looking, I think, Mr. Jocham, at a best-case scenario.

What if you run into water lines?

What if you run into archaeological sites?

What's a worst-case scenario in time?

MR. JOCHAM: Yeah, I don't know how to estimate a worst-case scenario because I'm not entirely sure what you'd run into, but let's see --

MEMBER GOLD: Well, let's say I'm referring to you come across an archaeological site.

MR. JOCHAM: Yeah. If you --

MEMBER GOLD: Second option you come across some water lines --

MR. JOCHAM: Yeah. If you run into --

MEMBER GOLD: -- or gas lines.

MR. JOCHAM: If you run into a cultural site, and that has to be mitigated, that could shut the project down for like -- that continuation of the actual construction of the project could be shut down for months while that cultural resource is mitigated and removed.

That's all dependent on the State and how quickly they can get out there and perform the work.

For things like water lines and gas lines, you would perform utility location prior to mobilizing for construction, which would hopefully mitigate that risk.

But when you do run into areas with dense existing underground infrastructure, it slows the process of construction because you can no longer use a large

bucket excavator to excavate the trench. You're using hand methods to dig around these pipes. Then you're putting in supports holding those pipes in place if you're choosing to route around those pipes.

So things like gravity-fed sewer lines, things like that, you -- as an underground line you would typically -- "you" as the utility would avoid those because changing gravity paths of a sewer line is difficult. Nonetheless, that's a whole different topic.

But it would slow generally. You would have to hand dig, and your -- at that point, the process would slow.

MEMBER GOLD: Thank you.

Mr. Lusk, are you familiar with what's underneath Campbell Avenue?

Have your experts looked and seen what sewer lines we have, what water lines we have, what gas lines we have?

MR. LUSK: Sure.

MEMBER GOLD: Have your experts determined that there were no -- I used to call them archaeological sites, but for the proper terminology you'll know what I'm talking about.

Have you already looked through and made sure we don't run into those crazy issues that could take

this project well beyond the suspense date?

CHMN STAFFORD: Member Gold, that's more of a fact question for Mr. Lusk's witness. He's the lawyer, not the witness for the City.

These are questions that would be better address to his witness because he'll have -- he should have knowledge of that type of thing and not a lawyer.

MEMBER GOLD: So this is the witness my previous questions from the other day are directed at also.

When is Lusk's witness going to appear?

CHMN STAFFORD: Well, let's see. Up next after we finish the cross of this witness, we will have Banner will put on their case, their direct case. After that will be the City of Tucson followed by Underground Arizona.

MS. GRABEL: The only caveat to that, Mr. Chairman, is Mr. Lusk informed me his witness is not available today. So if we wrap up Banner, maybe go to Mr. Dempsey first and then the City.

CHMN STAFFORD: Yes. We're not going to wait. Yes. We'll proceed with whatever witness is available. Yes.

But, yes, that's the order how it's going. And those are kind of like the fact questions that we

need to get from his witness under oath because he's just a lawyer. He's not testifying. He can give you an answer, but it's not under oath.

MEMBER GOLD: You mean he's not an expert?

MR. LUSK: On what's under Campbell, no.

CHMN STAFFORD: Yes.

MR. LUSK: No. Thank you.

CHMN STAFFORD: He may be experts in other areas, but not the subject matter that you're requesting.

All right. Please proceed, Mr Lusk.

Thank you.

MR. LUSK: Thank you, Chairman.

BY MR. LUSK:

Q. And just to be clear, Mr. Jocham, and this can go for Mr. Robinson as well, that would also be a concern for an overhead line, correct, because I believe you're going down five to ten feet?

A. (Mr. Jocham) Not nearly as much with an overhead line. Again, you would do utility locates, but the benefit of an overhead line is you can relocate that very small diameter excavation away from existing underground utilities and existing -- if a cultural site was present, you can avoid it, or it's easier to avoid. I can't say that you could absolutely avoid it, but it would be easier to avoid as an overhead line.

Q. And, Mr. Bryner, I believe you're still on the panel; is that correct?

A. (Mr. Bryner) Yes.

Q. I hate to keep dragging you back in here.

You're familiar with the Gateway Corridor Zone and its requirements; that's correct?

A. (Mr. Bryner) Yes.

Q. And are there exceptions to the Gateway Corridor Zone related to cultural artifacts and archaeological issues?

And if you don't know, that's fine.

A. (Mr. Bryner) I'm not sure. Sorry.

Q. Sure. And I can have my witness testify to that.

But you'd say -- you're saying, Mr. Jocham, that you would have to make some alteration on an overhead line if you ran into those same issues; correct?

A. (Mr. Jocham) Correct.

Q. It could mean going from one side of the street to the other or in a different location on that street?

A. (Mr. Jocham) That's situational. It would vary and depend.

Q. As it would underground as well?

A. (Mr. Jocham) Underground you could relocate or reroute the underground transmission.

It would add a level of complication and -- but, yeah, there's feasibility to routing to the other side of the road theoretically to avoid a cultural impact.

But, again, that -- it would have to go through detailed engineering and not fully -- I can't fully state what the impact would be --

Q. And you --

A. (Mr. Jocham) -- at this stage.

Q. I'm sorry. I didn't mean to cut you off there.

You would also have to do detailed engineering to determine the archaeological nature of poles; correct?

So I would assume you would pothole to make sure that wherever you planned on doing the excavation was appropriate; correct?

A. (Mr. Jocham) I'm not sure of TEP's process on --

Q. Oh, sure. Let me -- let's give Mr. Robinson a shot.

A. (Mr. Robinson) Sure. So during overhead construction, we go through the detailed design, and we put a stake in the ground then and call for Blue Stake, which would hopefully identify any potential underground conflicts.

Q. And for the record, can you just describe what the sort of Blue Stake process is?

A. (Mr. Robinson) The Blue Stake process is nine -- or 8-1-1 call before you dig ticketing -- to have all utilities come and locate their underground facilities.

Once that's done, we go back and reevaluate whether there are any underground facilities that are in conflict with our chosen locations and whether we can resolve that conflict by simply moving the pole a little bit.

Our preferred response to underground conflicts is just to relocate the pole. Oftentimes we can resolve those by sliding a pole three or four feet in any one given direction, sometimes up to 50 feet. But most of the time it's only a few feet that needs to be resolved.

Q. And I assume that's the same process for your underground distribution lines?

A. (Mr. Robinson) Underground distribution lines are a little bit more challenging in that you have a linear underground disturbance. And the vertical nature of the pole is just in a site location where the underground disturbance is along the pathway of the other existing underground utilities that we're trying to collocate with.

So it's a little bit more difficult to involve them. Often we have to do that through a redesign and

either go significantly below or potentially relocate the conflict to a new location.

Q. And your --

A. (Mr. Jocham) So --

Q. I'm sorry. Go ahead.

A. (Mr. Jocham) Yeah.

Q. Did you have something to add?

A. (Mr. Jocham) Yeah. So with underground transmission, as I mentioned a few minutes ago, we would pothole for underground transmission to determine the depth of those underground utilities. And that would help us design around said utilities whether we were going underneath, or if it was a third party, let's say Southwest Gas and we were asking them to relocate, that would be the point at an underground transmission line design where we would determine if we were avoiding it with the underground duct bank or we were asking a third party to relocate.

So whereas the typical Blue Stake process, it is using a superficial locater to just identify where the utility is at. It is critical for underground transmission that we identify not only where the utility is at but how deep it is, because that will impact that duct bank as it runs through the ground if there's an obstruction in the way.

Whereas a pole, you can move it a few feet left, right, ahead, back, whatever to avoid that said utility. As long as there's a clear hole in the ground that you can dig into you're fine.

Where in underground transmission line you're linearly running through the ground, and you're having to duck under or around certain underground obstructions.

Q. And I think, Mr. Robinson, you just described that for distribution as well; correct?

That's the same or similar issues?

A. (Mr. Robinson) That's correct.

It's common to distribution underground and transmission underground also.

We have to do the same with our distribution poles too.

Q. For the potholing you're meaning?

A. (Mr. Robinson) The Blue Staking.

And if there's a conflict, potentially pothole or move the distribution location.

It's just a lot simpler because the pole size and hole depth are a lot smaller on the distribution.

Q. And laudably you, TEP, is committed to undergrounding distribution in the areas where it's an overhead transmission line, if I remember correctly. Is that right, Mr. Bryner?

A. (Mr. Bryner) Yes, that's correct.

Q. So it's possible you could run into these same issues that you -- that Mr. -- or Chairman -- or Member Gold just described in doing so?

A. (Mr. Bryner) Yes, that's possible.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Okay. Mr. Lusk.

MR. LUSK: Yes.

MEMBER GOLD: If I understand their process correctly -- and I may not. Please correct me, Mr. Robinson, Mr. Jocham, Mr. Bryner if I'm wrong -- when you're putting in a telephone pole, you're digging a post hole that's about six feet in diameter and going down about 10 feet; is that correct?

MR. ROBINSON: So for a distribution pole, that's often two feet in diameter, eight feet deep.

MEMBER GOLD: So two feet in diameter hole that's eight feet deep compared to a minimum 15-foot trench that's a mile and a half long.

I think the chances of hitting something are a magnitude greater when you're entrenching than when you're just digging a two-and-a-half foot hole.

MR. LUSK: Maybe I can clarify with Mr. Robinson because I think the comparison you just

described is not the case.

BY MR. LUSK:

Q. Mr. Robinson, I think I just asked you about undergrounding distribution lines, not poles; correct?

A. (Mr. Robinson) That's correct. Our discussion was --

MEMBER GOLD: I stand corrected.

Distribution lines are easy to underground, and I approve of them. So thank you, Mr. Lusk.

MR. LUSK: Sure. Member Gold, thank you.

BY MR. LUSK:

Q. And, Mr. Robinson, and I'll just to clarify for the record just to make sure we get the question all answered and buttoned up here, those kinds of issues that were identified earlier, archaeological issues and those sort of things, could be possible with an underground distribution line in the area of the overhead transmission lines you're describing -- we're talking about today; correct?

A. (Mr. Robinson) Yes. That's correct.

Q. Thank you, Mr. Robinson.

I want to talk a little bit now about the costing, Mr. Jocham.

And am I saying your name correctly?

I apologize if I'm not.

A. (Mr. Jocham) Yeah. That's fine. It's Jocham.
Q. Mr. Jocham. Thank you.
Mr. Jocham, I want to talk now in the S & L -- Sargent & Lundy study that was presented, there were some comparisons made and including the -- I'm sorry. Can we go back to the TEP, is it, 31? Is that right?
MS. GRABEL: The most recent exhibit?
MR. LUSK: Is that this one?
MS. GRABEL: TEP-31.
MR. LUSK: Thank you.
BY MR. LUSK:
Q. And this is I guess the first -- it's hard to describe -- I guess the first page of TEP-31 comparing the preferred route in Route D-1.
Is that what's -- am I correct in that description, Mr. Jocham?
A. (Mr. Jocham) Clark created it. I'll let him answer.
Q. Okay.
A. (Mr. Bryner) You're correct. You're reading it correctly.
Q. Thank you, Mr. Bryner.
The "Total Cost As Proposed" is listed in the third column, the "Total Cost to Underground in the Gateway Corridor" is listed in the fourth column; is that

correct, Mr. Jocham?

A. (Mr. Jocham) Sorry. Can you repeat that question?

Q. I'm talking too fast. I apologize.

The "Total Cost As Proposed For an Overhead Construction" is listed in column three in this page.

And the "Total Cost to Underground Within the Gateway Corridor" is in column 4.

Does that sound right?

A. (Mr. Jocham) Agreed.

Q. And, I'm sorry, Mr. Bryner, did TEP prepare these cost estimates, or was this in conjunction with Mr. Jocham?

A. (Mr. Bryner) It was in conjunction with Mr. Jocham.

Q. Okay.

A. (Mr. Bryner) We prepared parts. He prepared parts.

Q. Okay. I just want to make sure I'm asking -- but if you feel like you need to jump in, please do so.

Mr. Jocham, the total cost as proposed, is that including the contingency fee as well -- or the -- not the contingency fee, the contingency amount of 20 percent?

A. (Mr. Jocham) It does not. It is base cost with

adders.

Q. Okay. And, again, in column 4, "Total Cost to Underground in the Gateway Corridor," that does not include the 20 percent either?

A. (Mr. Jocham) That is correct.

The cost that S & L provided was the cost -- base cost plus adder.

Q. Okay. And just to clarify in the study prepared for the application, there was a 20 percent contingency applied to the amounts in that; correct?

A. (Mr. Jocham) So the original reports that S & L provided for Kino to DMP included a 20 percent adder. The most current report for this particular -- for the project that is -- that is now that we're discussing today is -- follows the -- the advancement of cost engineering or AA -- AACE, cost estimating classification system, and it is a Class 4 cost estimate, which means a plus 50 minus 30 range is provided based off of the base cost, and that is a study-level cost estimate.

Q. Can you clarify what that means, plus 50 minus 30?

A. (Mr. Jocham) So based off of the base cost that is produced in S & L's report, we provided a range after that that is a plus 50 cost due to unknowns and a minus 30 cost due to unknowns.

Q. And, again, is that plus 50 percent or --
A. (Mr. Jocham) Yes. Percent. Sorry.
Q. Okay. Thank you.
Just, again, the math thing.
So and this is -- I think this is the exhibit that was just handed -- oh, I'm sorry.
So the plus 50 minus 30 is not included in TEP-31, though; correct?
A. (Mr. Jocham) Correct.
It is the base cost --
Q. Just base cost?
A. (Mr. Jocham) -- plus adder. So assuming jack and bore and the spare phase.
Q. Okay. Thank you.
The total length for D-1 of undergrounding within the Gateway Corridor is a total -- I want to make sure my math is correct.
It's 1.8 miles, correct, of the 4.1 miles?
A. (Mr. Jocham) For the total in just the Gateway Corridor?
Q. Yes.
A. (Mr. Bryner) I have that if you want.
A. (Mr. Jocham) Yeah. Go ahead. Sorry.
Q. Please.
A. (Mr. Bryner) So for Route 1 it's 1.8 miles

within the Gateway Corridor.

For Route D it's .5 miles.

So 2.3 total within the Gateway Corridor.

Q. Thank you, Mr. Bryner, for that clarification.

Can we go through, Mr. Jocham, Mr. Bryner, the numbers as they relate to D-1. Let's start with 1.

So the difference between total cost as proposed and total cost to underground approximately $36 million.

Does that sound about right?

Again, sorry about the math.

A. (Mr. Bryner) I was doing the math over here in anticipation of that. That's what I have.

Q. You see where I'm going, Mr. Bryner. Thank you.

The $36 million is for the cost to underground 1.8 miles?

A. (Mr. Bryner) That's the cost differential to underground the 1.8 miles.

Q. Okay. Is it -- is that -- am I not saying that correctly? I want to make sure I'm -- because I -- it sounds like maybe there are different -- it's a difference between -- it's not a per mile thing, is it?

A. (Mr. Bryner) Let me step back.

Q. Sure.

A. (Mr. Bryner) I actually think you did say it correctly.

Q. Okay.

A. (Mr. Bryner) I think I responded incorrectly.

So for that 36 million that we're looking at, that would be for the all-in costs to underground that 1.8 miles.

Q. And that's just the differential between cost as proposed for overhead and the differential for underground?

A. (Mr. Bryner) Yes.

Q. Okay.

A. (Mr. Jocham) I guess one thing to be clear that includes right-of-way, and it isn't -- I guess it differs from the S & L report, which is just engineering, procuring, and constructing.

Q. Okay. And so when you say right-of-way acquisition, I've heard you mention that several times, can you describe for the Committee what that means?

A. (Mr. Jocham) I guess easement acquisition.

And Clark would probably be the better person.

Q. Oh, sure.

A. (Mr. Bryner) Sorry. I was chatting with Mr. Robinson.

Q. What I was asking Mr. Jocham was if you can describe what it means for right-of-way acquisition as it relates to this project?

A. (Mr. Bryner) Okay. So, yeah, for the overhead costs for right-of-way we included the distance that we would need for a single circuit configuration if that's what it was or a double circuit configuration if that's what it was for the particular route in any area.

And then we looked at what could be accommodated within the road right-of-way, and, you know, we assumed that we would -- that would fall under our franchise. We wouldn't have any right-of-way costs --

Q. Okay.

A. (Mr. Bryner) -- but for the portion that would fall without -- or outside of the road right-of-way. Then those costs were taken at fair market value based on square footage, and that's how we estimated it.

For the underground, same process. It was just a different -- a different right-of-way width that was applied but similarly within the road right-of-way and outside of the road right-of-way fair market value.

Q. Mr. Bryner, is it your anticipation that right-of-way costs would be generally similar in that most of the -- whether it's underground or overhead would be within the right-of-way?

A. (Mr. Bryner) There are some differences.

Q. Sure.

A. (Mr. Bryner) I'd say they're ballpark similar,

but there's differences in widths, and so there were differences in the amounts.

Q. So in the case that you would be required to procure an easement, which I think is what Mr. Jocham just described, then that easement might be slightly larger because of the width of the trench?

A. (Mr. Bryner) For underground?

Q. Yes. Sorry.

A. (Mr. Bryner) Yes. I would say that would be true. That's what we found in our study is we might have larger easements.

Q. And did you at all -- and if you don't, please don't think you need to provide this, but did you, in fact, calculate an amount for either routes, any of the routes?

A. (Mr. Bryner) We calculated the amount for all of the routes.

Q. And do you have a ballpark of what that amount was?

A. (Mr. Bryner) For -- do you want it for D and 1?

Q. Sure.

A. (Mr. Bryner) So for Route D the right-of-way costs in the scenario that we're talking about of underground on the Gateway Corridor -- now, this is not just the piece in the Gateway because I have it rolled up

for the entire route.

Q. Okay. For the entire route.

A. (Mr. Bryner) Okay. So for -- and, again, this is not just underground easement, but it's a hybrid underground overhead.

Q. Sure.

A. (Mr. Bryner) But the right-of-way costs for D are estimated at -- I'm just kidding. I actually do have them in for the overhead portion and the underground portion separately.

Q. You're better than you thought you were.

A. (Mr. Bryner) Would you like them in both ways?

Q. Sure. Thank you, Mr. Bryner.

A. (Mr. Bryner) Okay. So for the overhead portion of D under the undergrounding the Gateway Corridor scenario, it's 1.8 million.

For the underground portion of D, it's 655,000.

And for Route 1, for the overhead portions of Route 1, it is 1.1 -- 1.2 million.

For the underground portions of Route 1, it is 2.6 million.

Q. Thank you.

So there's a difference between -- well, I guess on D that would be a much smaller area, so the costs are less for the easement.

Does that sound right?

A. (Mr. Bryner) Yeah. And D is a shorter route.

Q. Yeah.

A. (Mr. Bryner) And it also depends on the width of the road, right, but there's a lot of variables into it.

Q. Sure.

There is also a discussion about -- so the right-of-way acquisition that was previously not included now included. And permitting was also discussed.

Do you anticipate there being any need for additional permitting other than what you would normally do for underground versus overhead?

A. (Mr. Bryner) So we didn't actually include the permitting costs into this.

Q. Okay.

A. (By Mr. Bryner) But we -- we don't anticipate outside of like a cultural resource study.

Q. Sure.

A. (Mr. Bryner) We don't anticipate additional permitting requirements.

Q. Okay. So that's not something necessarily included in any of the costs or anything like that?

Thank you.

A. (Mr. Bryner) Correct.

Q. Let me move back to you, Mr. Jocham.

You through this study and your education have become familiar with underground transmission lines of all kinds; correct?

A. (Mr. Jocham) Correct.

Q. And you're familiar with actual in-service underground transmission lines both here and elsewhere?

A. (Mr. Jocham) Across the country, yes.

Q. The number of underground transmission lines -- and if you don't know this, please let us know, is that increasing or decreasing or staying about the same?

A. (Mr. Jocham) In comparison to overhead?

Q. No. Just in comparison to as we move forward in time, is the prevalence of underground transmission lines either increasing, decreasing, staying the same?

And if you don't know, please let us know.

A. (Mr. Jocham) It's hard to answer --

Q. Sure.

A. (Mr. Jocham) -- because overhead lines are increasing too.

So if you want to look at it in a percentage of overhead versus underground, I would say it's about the same as it was when I did my first underground line.

But it's hard to say because transmission lines across the country are being rebuilt, replaced.

Q. Sure.

A. (Mr. Jocham) And so I'm not entirely sure how to answer that question.

Q. Well, let's take the percentage just to make it a little easier.

What's the percentage of underground transmission lines versus overhead transmission lines?

A. (Mr. Jocham) Across the country?

Q. Sure.

A. (Mr. Jocham) I don't know that statistic, but I can give you some insights to like SRP identities that they have approximately -- I have that fact here -- 2,385 miles of overhead transmission in their system and approximately 10 miles of underground.

Q. Okay. So it's a small percentage at this point for SRP?

A. (Mr. Jocham) Under a percent.

Q. Might that change in different areas of the country?

A. (Mr. Jocham) Yeah.

Denser urban environments such as downtown Chicago, downtown New York, companies like ComEd have more underground transmission just purely due to the safety aspects of installing transmission lines in adjacence to large buildings.

Q. Gotcha. Thank you.

Those particular locations that you described, downtown Chicago, downtown -- obviously Tucson is not Chicago or New York, but they do pose some issues that you described about with large buildings or large structures with close to or within the right-of-way.

What are those issues that they have a problem with -- problems with?

A. (Mr. Jocham) I'm not sure I understand your question.

Q. Sure. Why don't we see overhead transmission lines in the middle of Chicago?

A. (Mr. Jocham) Oh, yeah. So in the middle of Chicago, especially in downtown Chicago in the loop you have large high-rise buildings immediately adjacent to sidewalks and roads. There's just no physical place to put an overhead transmission line. So at that point you're placing those transmission lines within the roads of the downtown environment.

Q. And in the case of a city transitioning to maybe a different streetscape, overhead transmission lines might have to be at some point undergrounded?

A. (Mr. Jocham) There have been projects that have performed that in the past where cityscapes are changing. And a good example is maybe not high-rise or density, but

SRP is putting in a 69kV underground for the City of Gilbert because the City of Gilbert's building a park, but the City of Gilbert is paying for that project.

Q. And they're doing so in conjunction with SRP; is that right?

A. (Mr. Jocham) Correct.

Q. Thank you.

CHMN STAFFORD: Mr. Lusk, we've been going for approximately 90 minutes.

MR. LUSK: Sure.

CHMN STAFFORD: I think it's time to give our court reporter a break.

How much longer -- how much more cross-examination do you have for this panel?

MR. LUSK: Not too much longer, but I'm happy with -- to take a break at this point.

CHMN STAFFORD: Excellent.

Let's take a 15-minute recess. We stand in recess.

(Recess from 10:39 a.m. to 11:02 a.m.)

CHMN STAFFORD: Let's go back on the record.

Mr. Lusk, please proceed.

MR. LUSK: Thank you, Mr. Chairman.

//

BY MR. LUSK:

Q. Mr. Jocham, I think we were talking about other projects in other cities.

Fair to say that those are -- well, actually I want to follow up on the answer that you gave us last which was with the SRP project, was it Chandler? Right?

A. (Mr. Jocham) City of Gilbert.

Q. Gilbert. Thank you. Gilbert decided that they would participate in the costing of that particular project?

A. (Mr. Jocham) Correct.

Q. And that was their decision?

A. (Mr. Jocham) From my understanding, yes.

Q. Sure. They weren't forced into it, I am guessing; right?

A. (Mr. Jocham) I don't know the details to it, but --

Q. I'll move on. Thank you.

Other projects like that that you're familiar with?

A. (Mr. Jocham) In the state of Arizona or in general?

Q. In general or in the State of -- obviously in the state of Arizona would be more helpful, I'm guessing.

A. (Mr. Jocham) I'm familiar with other projects

in the state of Arizona. They haven't been projects that S & L have been a part of, but with relationships with other utilities I hear about the other projects.

Q. Okay. Are you just generally familiar that they happen or do you have any specifics about the projects, where they are, maybe?

MS. HILL: Mr. Chair.

CHMN STAFFORD: Yes, Ms. Hill.

MS. HILL: I'm sorry to interrupt. But I just want to make sure, I would like to ask the Committee to allow Mr. Jocham to decline to answer based upon any confidentiality agreements or anything like that he may have with other clients. And only -- and just limit it to only that restriction.

CHMN STAFFORD: Yes, of course.

BY MR. LUSK:

Q. Sure. Only publicly available knowledge. Thank you.

A. (Mr. Jocham) I mean, I'm aware that projects such as Price Road Corridor and HIP were paid for by third-party entities or the difference quote/unquote was paid for by third-party entities. I don't -- I'm not privileged to the information beyond that.

Q. Are you aware what the size of those projects -- just in terms of the kV?

A. (Mr. Jocham) Yeah, those Price Road Corridor and HIP were both 230kV transmission lines.

Q. And those are in the?

A. (Mr. Jocham) Chandler area.

Q. Chandler area. Thank you.

CHMN STAFFORD: Mr. Jocham, could you get a little closer to your mic?

MR. JOCHAM: I'm sorry.

CHMN STAFFORD: You're a little faint there.

BY MR. LUSK:

Q. Thank you, Mr. Jocham. Moving on from those projects, the -- are you -- so the role that Sargent & Lundy would -- plays or has played in the past, you said you're just a consultant firm? Or would you -- would Sargent & Lundy actually be involved in any kind of design or construction or anything like that? How does that work?

A. (Mr. Jocham) Sargent & Lundy is an architectural engineering firm, so we are -- we perform design both conceptual and detailed for the energy industry.

Q. Okay.

A. (Mr. Jocham) But we do not have a construction arm. We do construction management but we do not do the

physical construction itself.

Q. So there are other firms that do just the construction piece itself?

A. (Mr. Jocham) Correct. Most construction firms purely do construction.

Q. Gotcha. And, again, I'm not presuming anything, but if the applicant, TEP, would be interested in designing an underground route of any kind, then they could utilize your services or services of another firm like you to do that?

A. (Mr. Jocham) Correct. S & L has the capability to do the underground, detailed underground transmission line design.

Q. And then they could also as you mentioned, I think yesterday, or not yesterday, Friday, that they could then hire a contractor, a construction contractor to perform the actual construction?

A. (Mr. Jocham) Yeah.

Q. Even though the applicant is not familiar with these kinds of construction techniques and this kind of work, they could sort of hire that out; right?

A. (Mr. Jocham) Correct.

Q. Okay. That obviously would come at a cost, I'm guessing? Your services aren't free?

A. (Mr. Jocham) Correct.

Q. So in terms of being able to construct the project, construct it underground or overhead, that's doable; right?

A. (Mr. Jocham) Both are constructible, yes.

Q. I want to ask you just real quickly. I notice there are multiple revisions of the Sargent & Lundy report. Is that just taking in additional information or is that a common practice?

A. (Mr. Jocham) So our first report, Rev 0, was issued in February of 2020. That initial report utilized the cable vendor standard cut sheet and the ampacity, the optimal ampacity that that cable is capable of handing that was the initial cost estimate and cost estimate 1.

So no actual engineering was performed in those first two evaluations.

After that, engineering, preliminary engineering was performed where we did run CYMCAP analysis, as I spoke about on Friday. Most of the revisions were changes in routes and/or updates in cost. As an example when we ran or when we did the initial cost estimate back in 2020. The cost of copper at that time was $2.20 a pound. And subsequently the cable cost at that time was $120 a foot.

And the latest quote that we received in 2024, that cable -- the copper price was $4.24 a pound and the

cable cost jumped to $245 a foot.

So most of it was not only updating routes and study areas, but also updating costs and as we've all experienced a large amount of inflation over the last four years. I think the bureau of statistics -- of labor statistics say the inflation has increased 21 percent since our initial report.

Q. And so mainly costs, route configurations, that sort of thing. You have access to different revisions; is that right?

A. (Mr. Jocham) I do.

Q. Okay. If I can point you to I believe the current revision, is it 7 or 8? I'm not quite sure.

A. (Mr. Jocham) There is not --

Q. I believe TEP-17?

A. (Mr. Jocham) Yeah, TEP-17 --

Q. Which provision is that?

A. (Mr. Jocham) Which is a date, it's called Final Report.

Q. And if I can direct you just briefly, you have a summary in that; correct?

A. (Mr. Jocham) I have an executive summary and a conclusion. What -- what one would you like to --

Q. -- to a page here. Sorry, I'm getting there.

So you have the executive summary which is on

page 8 of 60?

A. (Mr. Jocham) The executive summary by page number down in the bottom right is page 6.

Q. That's right. And the bottom of page 6, you additionally have a summary?

A. (Mr. Jocham) Correct.

Q. Of the executive summary; right?

A. (Mr. Jocham) Sure. Yes.

Q. Very helpful. I appreciate that. So the second paragraph from that is sort of just a discussion about how expensive it is? Is that fair characterization?

A. (Mr. Jocham) That is fair.

Q. What's the first sentence of that summary if you could read it for the Committee?

A. (Mr. Jocham) Yeah. It says, "The underground transmission line although constructible is significantly more expensive than compared to overhead alternatives."

Q. There's a change in that revision from other revisions, isn't there?

A. (Mr. Jocham) There is.

Q. And what is the change?

A. (Mr. Jocham) The prior revision said feasible.

Q. I think it said possible.

A. (Mr. Jocham) Possible.

Q. Right. Thank you.

MR. LUSK: I don't have any further questions. Thank you.

CHMN STAFFORD: Thank you.

Up next, Mr. Dempsey.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER LITTLE: I was holding on to my question until the end of the applicant's presentation, so I just have a couple of questions.

CHMN STAFFORD: Excellent. Well, Mr. Dempsey, we'll let Member Hill go and then you'll start your cross.

Member Hill.

MEMBER HILL: So my questions are for anyone on the panel that has the answer.

TEP has illustrated the importance of this line and the need to put in line in service as quickly as possible. And it does feel like there are challenges even getting it into service in 2027.

We had quite a bit of conversation about the potential delays in undergrounding even some portion of this line. We also talked about the challenge of having contractors who are familiar with undergrounding systems, maintaining undergrounding systems.

So one of the questions I have is when --

if a portion of this had to be undergrounded for whatever reason, would the contractors building the underground piece be different than the contractors doing the overhead pieces? How does TEP look at that contracting?

Do you think that would be two different construction firms or companies just based on the testimony that I heard about the undergrounding system being a different construction method and experience. What are you thinking?

MR. ROBINSON: I can take this question, Larry Robinson with Tucson Electric Power.

It's almost certain that there would be a different contracting and construction firm associated with the undergrounding portion than the overhead portion.

Both on at least the civil side putting the conduit, cutting the road, getting the vaults in place. We use a different contractor for that than our normal electrical contractors.

MEMBER HILL: Okay. That's helpful.

MR. JOCHAM: If I may add, this is Jason Jocham. If I may add, the -- at the transmission level after the civil is installed, the cable vendor, the manufacturer of the cable will then come pull the cable, do the terminations, do the splicing, so that, again,

adds maybe even another contractor into the mix.

MEMBER HILL: Okay. So we're talking about a couple of different contractors potentially to do likely the D-1 scenario because that's where we're most likely to have to do some level of undergrounding.

We also talked a little bit about just the potential for time delays.

If you had multiple contractors, so one group of contractors was doing the undergrounding, one group was doing the overhead construction, they could be working at the same time.

And I'm wondering if you could manage to, we talked about like worst-case scenarios of, like, delays with construction and time for construction. We also talked about simplified construction practices and getting it done in a much shorter amount of time.

But my question is as a practical matter, likely scenario, would TEP probably have multiple construction projects going on at the same time to complete a route?

MR. ROBINSON: Multiple contractors or multiple construction projects?

MEMBER HILL: I guess I was kind of thinking of them as the same, but maybe it's better to clarify like multiple sections being under construction

at the same time to complete the totality of the project, whatever route it is.

MR. ROBINSON: I think that's likely. That way we'd have multiple contractors working to complete the construction sections independently.

For instance, we'll have some civil distribution relocating any of the underground that we've committed to underground along with an overhead line construction contractor.

There will be a foundation contractor installing the auger pier foundations separately, and any civil contractor for the underground transmission along with the separate contractor for the underground transmission also.

That would also include a different contractor for the development of the substation site. So it's probable that we would have many different contractors working on the same project.

MEMBER HILL: That's helpful, Mr. Robinson.

It's just my observation that we can talk about worst-case scenarios and we can talk about ideal circumstances, but my observation is as a practical matter, different portions of this could be constructed simultaneously and that might reduce the overall time for construction.

This isn't a linear construction process. We can get different pieces done within a corridor, whatever that corridor is, and work towards the goal of getting it online in 2027.

That's all I wanted to establish is that as a practical measure, that could be what it looks like.

MR. ROBINSON: As an aspect of construction management, we know that there are some activities that are linear and need to be completed subsequently. And there are some that can be done in parallel. And we will always try to work as efficiently as possible to get a project complete.

MEMBER HILL: That is a much more articulate illustration of what I was trying to establish. So thank you.

CHMN STAFFORD: All right. Mr. Dempsey.

EXAMINATION

BY MR. DEMPSEY:

Q. Good morning.

Just, I guess building off of these questions that just happened, Mr. Jocham's answer to one of the questions.

So Mr. Jocham, why does the cable vendor pull the wire?

A. (Mr. Jocham) Because they warranty the wire and they won't warranty unless they pull it.

Q. So do they also pull the 69-kilovolt wires?

A. (Mr. Jocham) No, but they use different terminations and splices.

Q. So they don't warranty those wires or --

A. (Mr. Jocham) They -- I don't know the answer to that.

Q. Do you know -- I was going to get into this later but does APS use a vendor to install their 69-kilovolt wires or do they not use a vendor?

A. (Mr. Jocham) I do not know the answer to that.

Q. So you were speculating earlier when you said they did?

A. (Mr. Jocham) In what regard?

Q. You said that APS installed their own 69-kilovolt underground.

A. (Mr. Jocham) That's fair. I was assuming they did, yes.

Q. Okay. Thank you.

So, Clark, again I have other questions but these came up as a result of the questions that we just had.

So my understanding of your application and what you're requesting is that you've only asked the Line

Siting Committee to supersede the specific plans that are problematic and the Gateway Corridor. Is that right?

A. (Mr. Bryner) Let me just think about your question here.

MS. GRABEL: Mr. Chairman, I believe the application speaks for itself. I mean, I think if Mr. Dempsey looks at the application it's pretty clear what we're asking for.

CHMN STAFFORD: Mr. Bryner can answer the question because didn't you put together the bulk of that application, Mr. Bryner?

MR. BRYNER: I certainly did. With a large team.

So what we are asking for is that if the Committee chooses a route that is in conflict with either the Gateway Corridor Zone or one of the specific plans, which the two we're talking about are really the Gateway Corridor and the specific plan is the University Area Plan -- that was too fast.

So with respect to those, if the Committee selects a route that would be in conflict or in their opinion is deemed in conflict, we would request that they make a finding that -- I don't know if supercede is the right language, but would allow us to build the line in an overhead fashion.

BY MR. DEMPSEY:

Q. I believe it supercedes the language you guys used in the application.

So you're not asking to supercede any of these historic zone -- zoning -- zones that you're going to be passing through or adjacent to which could propose an equal problem as these other issues, as these other specific plans and ordinances. Is that right?

A. (Mr. Bryner) If you go back to my testimony, we believe those are not applicable, but we don't --

Q. That's just your opinion. There might be a different opinion?

A. (Mr. Bryner) Maybe that would be a question for the City.

Q. Okay. So I guess the question is that if you run into a problem with historic preservation zones or neighborhood preservation zones or any of these other zones, that could slow down the project of overhead?

A. (Mr. Bryner) Again, we don't believe there's a problem. We don't believe there's a, I guess, a link.

Q. So I guess the question kind of comes from we were doing our driving around yesterday or two days ago, or I'm sorry, last week, and I don't know if you guys noticed but at Speedway and Euclid there was a developer that was having to move historic homes; right?

I'm assuming that developer didn't want to do that. They would have preferred to just destroy the homes and build their property. But they had to do it because the historic preservation zone is pretty strict and that neighborhood, there was a pretty long fight about that issue.

And I just question your optimism with regard to putting lines down Euclid. So I guess I'm making -- I don't know if that's a question.

MS. GRABEL: Mr. Chairman, that seems to be a lot of testimony that doesn't have a question. Maybe something like that is better --

CHMN STAFFORD: Yes, could you --

MR. DEMPSEY: I will. Sorry. I apologize.

CHMN STAFFORD: It's like jeopardy. Could you please rephrase that in the form of a question.

MR. DEMPSEY: I'll move on. I'll get into it in my testimony.

BY MR. DEMPSEY:

Q. So I guess, Mr. Jocham, what voltage does FERC classify as transmission?

A. (Mr. Jocham) That's a good question. I'll have to get back to you on that one.

A. (Mr. Robinson) I can -- I can answer that the bulk electric system is considered transmission at 100kV

and above.

Q. So in -- when utilities report their annual reporting to FERC, they don't list 69 kilovolts as transmission voltage?

A. (Mr. Robinson) That's correct. It's not included as transmission voltage. It's subtransmission much like the 46kV system in our listings is listed as subtransmission.

CHMN STAFFORD: Let me jump in here real quick. So I've heard that term quite a bit, the subtransmission. Is that basically the high end of the distribution system?

MR. ROBINSON: Well, it's not technically distribution in that we would usually not hang a transformer that would go down to 120/240 that would feed residential and commercial customers directly. We would transform that voltage into a more consumable voltage at 4kV or 13.8, 14kV that then is distribution.

CHMN STAFFORD: Okay. Because I've always thought an electric system broke down to three segments: Generation, transmission, and distribution. But it seems like it's more complex than that with the distribution end being a mixture of actual distribution, which is the lower voltage that gets sent to people's homes and neighborhoods as opposed to -- and there's a

subtransmission which is below 100kV but still more akin to transmission than distribution. Is that an accurate statement?

MR. ROBINSON: Yes. And the subtransmission rarely would be transformed to feed residential and commercial customers directly. There are some commercial customers that we would feed directly. We call that primary metered where they transform the voltage themselves to consume it on their properties.

CHMN STAFFORD: So they would -- now I'm getting a little --

MR. ROBINSON: Sorry.

CHMN STAFFORD: Wide afield here, but I'm just curious and I have to know. So does that -- because I know that some customers take delivery from the transmission system and so they don't pay for the distribution system cost. But that doesn't mean they're taking it at 100kV or more. They're taking it above what kV to qualify for that?

MR. ROBINSON: They're taking it at above 100kV.

CHMN STAFFORD: Above 100kV, so they're taking it direct from 69kV, they still would have to pay distribution costs.

MR. ROBINSON: I'm going -- I would defer

to one of our rates people to testify on that.

CHMN STAFFORD: Mr. Bryner.

MR. BRYNER: I'm no rates person. But if I can maybe give an illustration since I'm not an engineer, not technical like these folks, the way I think about this is I think of the distribution serving our customers directly. Subtransmission, functionally it's transmission, you know. It's bringing the power in from somewhere so that we can then break it down to get to our customers. So I look it at the way you do. Distribution, transmission, generation. But from a FERC definition standpoint, from a siting standpoint, there's that kV threshold. So that's the way I look at it. As far as how the billing works, I don't have the answer on that.

CHMN STAFFORD: All right. I'm just going to try to get a better handle on what the -- the difference between transmission and subtransmission.

So what does TEP classify as subtransmission, then?

MR. ROBINSON: Our 46kV.

CHMN STAFFORD: Is that the bottom end of it?

MR. ROBINSON: Yeah, it's really the only end of our subtransmission. Our voltages gone from 4kV

to the 14kV to 46kV and then jump to 138.

CHMN STAFFORD: Okay. So there's no 69kV on your system.

MR. ROBINSON: Not on our system, no.

CHMN STAFFORD: Okay. Well, thank you. That clears it up. That answers my question. Thank you. Please proceed, Mr. Dempsey.

BY MR. DEMPSEY:

Q. Okay. Once again I'm going to apologize because I have a lot of questions and I've tried to organize them but it's not easy, especially as I keep adding questions.

So talking about -- I don't -- I guess Larry or Mr. Robinson, I'm not sure, you could -- I'll ask you and then if someone else knows the answer.

So how many amps is the 46-kilovolt system in this area currently running at?

A. (Mr. Robinson) I don't know the answer to that. Our planning engineers would be able to answer that question on what it's rated at.

Q. So do you have a -- so I guess you can tell me you don't know the answer to this question either.

What's the demand, the load, the peak load for Vine area?

A. (Mr. Robinson) I don't know the answer to that.

Q. Fair enough.

A. (Mr. Robinson) I can tell you what the line is designed for, and that's a peak load of 2250 megawatts -- amps. I'm sorry. Amp.

Q. And that's the new line, not the old line?

A. (Mr. Robinson) That would be the new line in this application, yes.

Q. So I'm assuming you calculated that based on existing demand, you just don't know what that is?

A. (Mr. Robinson) Our planning engineering team determined that requirement when they sent out the planning requirement and put it in our transmission plan.

Q. Okay. Thank you.

So I guess this is a question for Mr. Jocham. So you put in your slides that the overhead line would be 954 kcmil?

A. (Mr. Jocham) Uh-huh.

Q. What is the ampacity of that line?

A. (Mr. Jocham) Mr. Robinson just testified.

Q. The same?

A. (Mr. Jocham) Yep.

Q. Okay. And is that -- is that the maximum or is that what you expect to be the normal operating amount?

A. (Mr. Jocham) Larry -- Mr. Robinson, do you want to take that?

A. (Mr. Robinson) That's the emergency thermal

rating capacity of that line at 250 degrees C as defined in our planning memo.

Q. Again, I'm getting ahead of my questions here.

In Mr. Jocham's engineering report, he put that 1584 is what's required but 2294 or 2250 is what's preferred.

I'm trying to understand the difference between those two numbers.

A. (Mr. Robinson) Emergency rating on the cable is the difference.

Q. Okay. So 1584 is what you estimate what you need. 2294 is in case of an emergency?

A. (Mr. Robinson) The 1580 is the normal operating amperage.

Q. So is it traditional that by my math 2250 over 1584 is about 50 percent larger for emergencies. Is that typical? I don't have special knowledge I'm going to challenge you on this, I'm just getting it for the record.

A. (Mr. Robinson) Yeah. That's determined by our planning department and the way the system responds if a line's out of service.

Q. So is it possible -- so you have a 50 percent up -- overbuild, can it be a 30 percent overbuild? I'm just trying to understand, is that required by code?

What's the -- is it just a -- TEP picked it out of a hat? How does it work?

A. (Mr. Robinson) Our planning department would need to answer that question. I'm sorry. I don't know.

Q. All right. I'm going to change gears here again.

So, and I'm not -- I just want to make sure I understand a question you asked earlier, Member Gold.

So you said that the trench minimum depth is 15 feet. Is that correct?

MEMBER GOLD: Width.

MR. DEMPSEY: Width. Okay. All right. Never mind.

BY MR. DEMPSEY:

Q. What is the minimum width of the trench for undergrounding the 138?

A. (Mr. Jocham) Our report identifies that the typical trench width would be approximately five and a quarter feet with a one-foot cutback on either side. So approximately seven feet at grade.

Q. So, and that's -- I've been looking at the projects in Phoenix. And it's -- is it, you could change that, I'm assuming because like, for example, the Chandler project, you guys are doing essentially four this way. Could you do four this way or could you do,

you know --

A. (Mr. Jocham) You can. It changes the ampacity.

Q. Right. So but potentially if you -- if for some reason there's an obstacle or something, you could go from five to whatever the skinnier route?

A. (Mr. Jocham) I would say that's common in detail design. You will change cross sections of a duct bank from horizontal to vertical and a few in between.

MR. DEMPSEY: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Didn't you say earlier that you needed double lines underground? So you would have four and four.

MR. JOCHAM: So the duct bank is together and the approximate width of the dual, having two cables per phase is a little over five feet wide, the actual duct itself.

MEMBER GOLD: And to put in the box, whatever that thing is.

MR. JOCHAM: That would have to be wider than the --

MEMBER GOLD: So what's the total width? I think what he's looking for is the total width.

MR. JOCHAM: Yeah, the total cut would

probably be in the six- to seven-foot range, the -- the box isn't much wider than what you would need for the trench.

MEMBER GOLD: So the images you showed us before on earlier slides where you had a box and you had a dual set of lines, so you have eight lines in it, didn't show that they were stacked, it showed that they were side by side. I thought that was for heat dissipation.

MR. JOCHAM: It is, and that's the way it's represented in our report.

MEMBER GOLD: So that would mean that the width that you would need for the box for even eight lines would be six feet?

MR. JOCHAM: Eight conduits, yes.

MEMBER GOLD: Eight conduits you could still do in six feet.

MR. JOCHAM: Eight conduits. Well, technically 10 conduits because of the spares, but you would have five stacked on five.

MEMBER GOLD: And they would be in PCV cables that are how wide?

MR. JOCHAM: The PVC schedule 40 pipes are eight-inch Schedule 40. That is what we're projecting based off of the cable size, initial cable size for this

project.

MEMBER GOLD: So you would have ten of those PVC eight-inch-wide pipes?

MR. JOCHAM: Yeah, five stacked on top of five more.

MEMBER GOLD: And how would the total height be?

MR. JOCHAM: The total height of the required duct bank would be a little -- almost two and a half feet tall. There would be a one-inch, or excuse me, one-foot additional red dye concrete on top of that. But there's a minimum depth that's required by code, and so the top of the duct bank basically starts about three feet below the surface, so the overall excavation is about five and a half feet deep.

MEMBER GOLD: So we're talking roughly six feet by six feet is all you would have to excavate.

MR. JOCHAM: If there's something in the way. And if there's something in the way we would have go underneath it, so your trench could get deeper, could go 12 feet deep.

MEMBER GOLD: And in order to do this, the equipment you would need to shut down the roads would take up how many more feet?

MR. JOCHAM: Yeah, so based off of my

testimony on Friday, you'd have a large excavator and dump -- trucks that would take up somewhere probably between 25 and 350 feet in width.

MEMBER GOLD: So how many lanes would you close down while you're doing a mile of undergrounding?

MR. JOCHAM: On Campbell that would shut down one entire -- it would shut down the southern lane, all three southern lanes because of the raised median and you'd have to transfer traffic to the other side.

MEMBER GOLD: And the businesses on that side of the street?

MR. JOCHAM: Not sure. That would have to be determined and supported in detailed design to make sure that they could have access to their businesses. I'm not sure at this stage how that would be handled.

MEMBER GOLD: All right. But it would be an open trench affecting a whole bunch of businesses that you could put steel plates on temporarily.

MR. JOCHAM: Correct.

MEMBER GOLD: Okay. And the other side, the other three lanes would have two-ways traffic; correct?

MR. JOCHAM: Yeah, two-way traffic in those three lanes that are northernly.

MEMBER GOLD: So you'd have one lane one

direction, one lane another direction, and then one lane for people pulling into someone's parking lot or storefront.

MR. JOCHAM: Potentially, yes.

MEMBER GOLD: Would create quite a hassle.

MR. JOCHAM: Yes.

MEMBER GOLD: Okay. Thank you. I hope that clarified the point that we were trying to make earlier.

MR. DEMPSEY: Yeah. Thanks.

BY MR. DEMPSEY:

Q. So I have a couple more questions now.

I'll take them in order.

So you mentioned the three-foot minimum; is that right?

A. (Mr. Jocham) To the top of the duct bank that's not -- the code-required depth is 42 inches. 42 inches is where it has to be below the surface.

Q. Is it the same for the six-inch distribution conduit that we have discussed previously? I believe that's what --

MR. ROBINSON: That's correct.

BY MR. DEMPSEY:

Q. -- Mr. Robinson said?

A. (Mr. Robinson) Our standard is 42 inches.

Q. So you'd have to be able to dig this trench either way; is that right?

A. (Mr. Robinson) I'm sorry. Can you restate that?

Q. If you have to underground distribution along this route you're going to have to dig this trench either way; is that right?

A. (Mr. Robinson) It's just a much smaller trench that we would need to dig for.

Q. Why is it a smaller trench?

A. (Mr. Robinson) Because feeder distribution fits in one six-inch conduit with a spare and 200-amp distribution fits in one four-inch conduit with spare.

This would be a 10 conduit duct bank.

Q. And you might have communication conduits as well, and my understanding is that you have to go to the same minimum depth. So you would -- would you potentially run into the exact same conflicts that you'd have to go around or under or whatever?

A. (Mr. Robinson) Yes. The nature of underground -- undergrounding anything is that there are linear obstructions that you need to avoid during construction. You try to identify those during design and anticipate what those would look like by either relocating the obstruction or by going underneath it.

But that has to happen whether it's a distribution voltage or whether it's a transmission voltage.

Q. And is undergrounding distribution voltage, given it might be not as wide, but it has to be the same depth. Is it going to close the same amount of traffic lanes?

A. (Mr. Robinson) No, the equipment needed to dig that trench is a much smaller piece of equipment. The trench is 18 inches to two feet in width. So you can have a smaller equipment with a dump truck. We would probably close one to two lanes of that traffic.

Q. Then it's the same hundred feet a day or --

A. (Mr. Robinson) Roughly give or take, yes.

Q. Okay. So then I guess, Mr. Robinson, do you know how wide the Campbell right-of-way is?

A. (Mr. Robinson) Not off the top of my head.

Q. Are you familiar with how large the setback is on the west side of Campbell between the property and the side of the road?

A. (Mr. Robinson) No, I'm not.

Q. Okay. All right. Are any of you? Clark?

A. (Mr. Bryner) I could look it up but I don't have it in my head.

Q. Would you say it's fairly large?

A. (Mr. Bryner) I'd have to look. I don't know.

Q. Okay. Thank you, guys. I appreciate it.

This is a technical question more so I guess out of curiosity for the record is Mr. Jocham. So, I mean, you guys are using this 6,000 kcmil. It looks like if you end up not having to go as deep as you might have to, you might use a slightly smaller wire or cable, whatever you want to call. You might be able to use a 5,000 kcmil or could you possibly go smaller than that if you only have to go three feet, or is 5,000 kind of the lowest?

A. (Mr. Jocham) Cable size you can go well below 5,000 down into the 2,500 range. It's purely going to depend on detailed engineering and what the thermal resistivity of the soil is. And how deep you have to go.

So the runs at this point are preliminary for cost estimation purposes and study purposes, but during detailed engineering if it was to go underground, that would have be evaluated.

But 5,000 kcmil is a conductor type that's used.

Q. Do you know the price difference between 5,000 kcmil and 6,000 kcmil?

A. (Mr. Jocham) Not offhand. We would have it quoted directly from the vender.

Q. But it's fair to say it's less than 6,000 kcmil?

A. (Mr. Jocham) It more than likely would be less,

yes.

Q. Okay. So this is my question. So let's say you have to install these vaults, let's just say one section of vault you had to go deeper than another section of vault. Can you marry a 6,000 kcmil to 5,000 kcmil if that section happens to be -- you can use a cheaper wire or cheaper conductor?

A. (Mr. Jocham) It's not normal. Let me ask my electrical because he's the one that can answer that question. You can, but it's not typical.

Q. But if cost were an overriding concern you could consider it, it sounds like?

A. (Mr. Jocham) Yeah. I'll add some anecdote to that is one part of that is now you have multiple cables that you have to store a spare. The splices are custom from different sizes, even more custom. So you're holding more materials in your storage yards, which adds cost to the maintenance aspect of the project.

Q. But if you stored a 5,000-kcmil cable it would be cheaper than storing a 6,000-kcmil cable, I assume.

A. (Mr. Jocham) I'm not going to speak for TEP on how they are going to maintain their project. But generally speaking, if you have both materials you would need to store both cables. So you would need a reel of 6,000 and a reel of 5,000.

Q. Okay. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Just a question of physics and thermodynamics. If you're running the same voltage and you could switch from a thicker line to a thinner line, then you don't have to use the thicker line in the first place. This would be to Mr. Robinson.

I do not know of any electrical situation where you say we're running at a high voltage, we've got to prepare for the maximum, where you would say yeah, but in this section we can put in a thinner wire.

That would create far more heat. You could have used the thinner wire all along or else you wouldn't have said you would use a thicker wire in the first place.

MR. ROBINSON: Yeah, I think what Mr. Dempsey is trying to get to is -- and Mr. Jocham has testified; right. The thermal properties of cable are very important, right, and as you get closer to the surface of the earth, thermal -- thermal dissipation improves. So if you're able to put the cable closer to the earth you may be able to go with a smaller diameter cable in sections of the engineered line. I think that's the line of questioning that Mr. Dempsey's going down.

MR. DEMPSEY: Yeah.

MR. ROBINSON: It's possible that you can do that as Mr. Jocham has been testifying to. Probably not the best solution. You have to track those different materials differently, you have to store them, you have to order specialty splices. That type of stuff.

MEMBER GOLD: It wouldn't -- it just doesn't make sense to me on the surface that the doing that what you would save in cost over the short period would be far more expensive in maintenance and monitoring and everything else over the long period. I would suggest that if they're going to use a 6 mil -- 6 mil; is that the terminology?

MR. DEMPSEY: 6,000.

MEMBER GOLD: That you would make them use a 6 mil throughout the whole thing. That just makes sense to me.

MR. DEMPSEY: Well, I agree. What I would ask, though, is that, you mean your -- your engineering kind of assumes a worst-case scenario. It's, oh, we're going to have to go to 15, or 10 to 15 feet. It's possible that you'll only have to go three feet the whole. It's -- maybe it's unlikely, but it's possible that you'll be able to achieve trenching that, just like you're going to do with the distribution you would be

able to achieve using a smaller wire.

MR. JOCHAM: Knowing that there are a number of sewer crossings and other gravity fed-type underground obstructions, I would say it's highly improbable that you wouldn't have to go deeper.

BY MR. DEMPSEY:

Q. So you would have to do the same thing for the distribution?

A. (Mr. Jocham) I would assume so, yes.

Q. Okay. Sorry. Just a second. Let me get reset here. Some of my questions have already been answered.

So you brought up the City of Gilbert is paying for undergrounding. Do you know if they're using the SRP's municipal aesthetics program?

A. (Mr. Jocham) From my understanding, yes.

Q. Okay.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Just a question because I don't know the answer. Is the City of Gilbert's project where they're undergrounding new work, new developments, or is it an already existing city with infrastructure and everything else there?

A. (Mr. Jocham) Not to go into too much detail because of my confidentiality, but it is an existing line

that's being relocated underground.
BY MR. DEMPSEY:
Q. And 69kV; right?
A. (Mr. Jocham) Correct.
Q. Again, just more of a -- for the record and a curiosity thing, so you say that the aboveground transmission lines are 200C rated. That's kind of a worst case under maximum load situation; right? What's kind of the -- what temperature would they operate at on a normal basis or an average or something like that?
A. (Mr. Robinson) So our planning department determines what the operating temperature and the needed ampacity is. And they declare that in their planning memos and put that into our long-range transmission plan.
So our civil engineering and transmission engineering teams design according to the temperatures that are given to us by our planning department.
Q. Okay.
A. (Mr. Robinson) It's -- I can tell you that it is affected by the number of outages and things like that in an area that we still would want to be able to maintain service to our customers with. That's what helps determine thermal rating. And it's really an ampacity rating. More so than thermal.
A. (Mr. Bryner) I could add to that the minimum

rating is 200C, the emergency rating is 250C.

Q. Okay. Thank you.

So we've kind of already established this, but I want to do it more clearly. I guess, Mr. Jocham, are there critical parts of Arizona that are dependent on underground transmission lines?

A. (Mr. Jocham) I'm not sure what you're asking.

Q. Is downtown Phoenix dependent on an underground transmission line?

A. (Mr. Jocham) Yeah, due to the large-scale buildings, underground transmission in downtown Phoenix is a necessity.

Q. And would you say that's proven reliable?

A. (Mr. Jocham) I don't think I'm questioning the reliability of underground versus overhead. I think they're the same.

Q. So yes, it's proven reliability?

A. (Mr. Jocham) It is reliable.

Q. Do you know what size, what kcmil, what size XLPE wire was used in the Intel HIP project?

A. (Mr. Jocham) I believe from my understanding, and I don't know this to be exact, but I believe it was two 5,000-kcmil conductor per phase.

Q. So they used the smaller wire for Intel? Okay.

Now, there's this existing, you know, pipe-type

transmission system through central Phoenix that's dated and they're in process of refurbishing and reconductoring it.

There's also some 69kV systems that have been recently added to downtown Phoenix underground. Would you say that central Phoenix has less underground obstacles than Campbell Avenue in Tucson?

A. (Mr. Jocham) I don't know the answer to that.

Q. Sorry. I have so much stuff here and I kind of keep getting ahead of myself, so the questions, I've always asked them, so I have to kind of work through this, so I apologize to work through this. So I apologize.

Okay. So when it comes to sort of the traffic and the disruption conversation, is there -- I guess, Mr. Jocham, is there any reason to assume that the City wasn't aware that undergrounding would disrupt traffic when it passed these laws?

A. (Mr. Jocham) I don't know the City's intent.

Q. Is TEP a large customer of yours?

A. (Mr. Jocham) They're a large client of ours.

Q. Client. Sorry. Yes.

A. (Mr. Jocham) Yes.

Q. Do you do work on all their projects?

A. (Mr. Jocham) We do work on their overhead, yes,

and generation.

Q. And I guess outside of TEP, in the state of Arizona how many 69-kilovolt and undergrounding projects have you done in the last five years in Arizona?

A. (Mr. Jocham) For utility clients or altogether?

Q. I guess altogether?

A. (Mr. Jocham) Sure. We've done one underground job for a utility client and multiple, I think three at this stage, underground support efforts for developers.

Q. Those are 69kV?

A. (Mr. Jocham) And above.

Q. Okay.

A. (Mr. Jocham) Two of them were at the 230kV level.

Q. Thank you. So when, you know, a project goes forward, do you determine the cost or does a contractor determine the cost?

A. (Mr. Jocham) We determine the materials. The vendor determines the cost of the materials and the contractor will quote the labor costs.

Q. So it's possible that a contractor can do it for cheaper than you've estimated?

A. (Mr. Jocham) Yeah, there's a competitive bid process, so there is always the opportunity for someone to come in and bid at a cheaper price. The costs that

were provided in this estimate were quoted from a contractor and from vendors.

Q. Thank you.

A. (Mr. Robinson) Mr. Jocham, can I add?

Q. Yeah, go ahead.

A. (Mr. Robinson) It's also possible that the contractor will come back for more than what we estimated.

Q. Right. Fair enough. Can we bring up UAZ Exhibit 16? Oh, no, well, we'll get that one later. There we go. Thank you.

So are you familiar with this study?

A. (Mr. Jocham) I've read it since you had filed it. But prior to that, no.

Q. Okay. So this study says that, you know, if an XLPE wire or cable, I don't know what to call it, a conductor is operated responsibly, it might last 100 years. Do you have any reason to agree with that?

A. (Mr. Jocham) I mean, industry and cable vendors themselves will also tell you this, that insulation will break down over time as you operate the line.

And if the insulation is designed to handle the -- withstand voltage of the cable and the more you heat it up, the more potential breakdown that you have of that cable, there are studies including EPRI studies that show

normal operation of the cable, the expected life span is approximately 40 years.

Q. Right.

A. (Mr. Jocham) Now, do I think that if you don't increase the temperature of the conductor to where it could potentially hurt the cable will it last longer? Yes.

There are, I'm sure, scenarios out there in the world today and existing utilities where there are underground systems that exceed a 40-year life span based off of operation.

But there are cables out there today that are also being replaced because they have been operated at a higher temperature and the insulation has broken down.

Now, as a part of the cost estimate that we put together, and to be responsible, to try to be responsible for monitoring temperature of the cable itself to help the longevity of the cable, we are identifying the installation of a distributed temperature sensing system so that you can monitor the cable temperature to support a longer life.

Q. So it's possible, sounds like if we oversize, if we actually go with the 6,000 kcmil that you might last a lot longer than 40 years?

A. (Mr. Jocham) It depends on the load that's

applied to the circuit.

Q. Right.

A. (Mr. Jocham) That's all theory.

Q. And they discussed that in this paper, you said you read it?

A. (Mr. Jocham) I've reviewed it, yes.

Q. Okay.

A. (Mr. Jocham) There are other I think, even filings that were submitted that identify purely based off of temperature that you can degradate the insulation quickly.

Q. So -- sorry to interrupt you?

A. (Mr. Jocham) Go ahead.

Q. So is it fair to say that oversizing a wire helps keep the temperature down?

A. (Mr. Jocham) Yes.

Q. Okay.

A. (Mr. Jocham) Yeah. If you oversize the conductor you provide more surface for the electrical -- for the electrons to run down and it has less resistance.

Q. So maybe spending a little bit more money on a slightly larger wire might help it last longer?

A. (Mr. Jocham) In theory.

Q. All right. Thank you.

So I guess I'll get into this in my testimony.

Thank you.

So is it fair to say that the -- in the same setting that a 230-kilovolt installation should cost more than 138-kilovolt installation or does it depend on the wire size, I suppose?

A. (Mr. Jocham) It mainly depends on wire size. The 230kV cable will be slightly more expensive because it will have to have thicker insulation.

Q. Okay. That's helpful. Thank you. And then I assume the same is true for the 69-kilovolt, it also then would be cheaper in the exact same scenario just because it's not kilovolts and not 138 or 230?

A. (Mr. Jocham) 69 is a little unique because once you get above a certain cable size at 69kV, then you get away from cold shrink terminations, and you have to use engineered terminations at that point. So that would increase the cost of the cable itself and the cost of the installation.

Q. Okay.

A. (Mr. Jocham) But in generalities if you were comparing apples-to-apples, the 69kV conductor would be slightly cheaper due to the lesser insulation that would be required as part of cable.

Q. The trenching and everything else is more or less, it's a slightly wider trench or whatever?

A. (Mr. Jocham) Again, it's driven on cable size.
Q. Right.
A. (Mr. Jocham) The number of or the size of the conduit that's required to be put in.
Q. Thank you. Give me a second here.
I'm going to ask this question and I appreciate that you don't know the answer given your answer to a prior question, I just want to get it for the record.
Do you know the width of right-of-way on Euclid?
A. (Mr. Bryner) I assume you're addressing that to me?
Q. Whoever knows, if one of you knows the answer, whoever?
A. (Mr. Bryner) I have the data in our database. I just don't know it off the top of my head.
Q. Okay. So I want to get into this conversation about -- I believe, Mr. Jocham, you said yesterday you said, "I have never seen a spare used."
Over what period of time have you never seen a spare use?
A. (Mr. Jocham) I've been supporting underground projects for approximately six years.
Q. So over six years you've never seen a spare used?
A. (Mr. Jocham) Correct. But like I said,

following that statement, operationally, Sargent & Lundy is typically not involved so we don't always hear what the utility does after we have departed.

Q. So this -- this is a looped system; right? So if you have a problem with an underground line, you're sizing it appropriately that power can flow from the other direction so there shouldn't be a disruption. Is my understanding correct?

A. (Mr. Jocham) I'll let the TEP representative answer that.

(Mr. Robinson) Yes, that's correct. The looped system should have, we should be able to have an outage on any one segment and still maintain power.

Q. For even months at a time if you have to?

A. (Mr. Robinson) Yes. The risk is now you have that substation during those months-long outage on radial feed --

Q. Right.

A. (Mr. Robinson) -- which means if you lose that -- if you lose that radial feed then your customers are out of power.

Q. So are there any -- Clark, you know the answer to this, I know you do -- are there any, not just in TEP but in the whole -- in your sister companies, are there any parts of your system, any cities that are dependent

on a radial feed?

A. (Mr. Bryner) So if you're looking at TEP?

Q. Yeah.

A. (Mr. Bryner) We've talked about the Kino Substation.

Q. Right.

A. (Mr. Bryner) We know it is on a radial, and when you have some customers, not cities that are on radials, the large mine customers. If you're extending outside of TEP to UNS Electric, which I assume you may, so yes, the answer is yes.

Q. So and that's -- is that Nogales?

A. (Mr. Bryner) Correct.

Q. So all of Nogales is dependent on a radial feed or just part of it?

A. (Mr. Bryner) So Santa Cruz County today we have one transmission line that serves Santa Cruz County.

Q. And that has serve --

MS. GRABEL: Mr. Chairman, if I may interject.

CHMN STAFFORD: Yes.

MS. GRABEL: Thank you. I'm sorry. I'm just informed that of a policy, that TEP really doesn't like to testify about sister companies, when talking about TEP. They are different utilities that serve

different communities, and so if we could just maybe focus this examination on TEP.

CHMN STAFFORD: Well, he's kind of going towards just the existence of these radial lines. With respect to the -- I think it is Nogales, I seem to recall 20 years ago TEP, UniSource attempted to get another line to serve that, but was unable to do so because I think it was the Bureau of Land Management would not allow them to cross, to add a transmission line to get the redundancy for the provided purposes they wanted.

So, I mean there's -- it's -- what's -- I think you're trying to get to the fact that there are places where they have these radial, places are served by radial lines.

MR. DEMPSEY: Right.

CHMN STAFFORD: Where they exist, TEP has a few, UniSource has some. But I think if your ultimate goal is find out whether that's acceptable or not, I think --

MR. DEMPSEY: No, just --

CHMN STAFFORD: If that's what you have, that's what you have to have. But they would prefer other, a radius of a looped system to create the redundancy to increase the reliability. I think that's kind of the standard approach for most of the utilities

in the state.

MR. DEMPSEY: Yeah. I understand. I agree with that. I just am curious what the current state of play is, because Clark has told this to us before in public, so --

CHMN STAFFORD: He has actual knowledge of it, so --

MR. DEMPSEY: Right. So thank you. I forget what my question was. Hold on a second here.

BY MR. DEMPSEY:

Q. So, all right, so we've established what the purpose of a loop is.

If you had some catastrophic undergrounding fault, you would still have power flowing from the other direction so it shouldn't cause an outage; is that right?

A. (Mr. Bryner) Yes.

Q. So because it's a loop, Mr. Jocham, is the spare advisable? Can you get by without a spare if you're part of a loop?

A. (Mr. Jocham) You can install line and operate it without a spare. If you don't have that spare in place your outages will be significantly longer.

Now, in regards to how TEP wants to operate, I will let TEP answer that. I'm not a TEP representative.

Q. So you claim to be familiar with the Intel HIP

project; is that right?

A. (Mr. Jocham) I have indirect knowledge of the project, so correct.

Q. Do they entail a spare?

A. (Mr. Jocham) They did not install a spare on that project from my understanding.

Q. Is it fair to say that reliable power is pretty important to Intel's business?

A. (Mr. Jocham) Yes. The answer to that would be yes.

Q. Thank you. All right. So changing gears a little bit here again.

I guess any of you -- this question -- can answer this question.

I guess I'll start with you, Clark.

Are you familiar with the Broadway expansion project that happened in the area recently?

A. (Mr. Bryner) Yes.

Q. Do you know if they were slowed down by any unexpected cultural resources?

A. (Mr. Bryner) I guess I'm not that familiar with it.

Q. Okay. Fair enough. Well, this came up yesterday, too, so, I mean, Mr. Jocham, you had said that you might have to destroy and rebuild a roundabout.

Are roundabouts expensive?

A. (Mr. Jocham) Civilly, probably not.

Q. Thank you. And then I guess this goes back to the amperage question. I mean, you guys have talked about how this line is about stabilizing the whole grid, not just for this area. Do you guys have an idea of what percentage of the electricity that will flow through this area is for this area versus the rest of the surrounding area? Does that make sense?

A. (Mr. Robinson) That makes sense, but that's a question that the planning department would have to answer.

Q. But it's fair to say that it's sized for more than just the consumption of this area?

A. (Mr. Robinson) It's fair to say that it's sized to maintain reliable power for our customers in the grid, the operation of the grid.

Q. Perfect. Thank you.

And Mr. Jocham, you've, as Mr. Lusk discussed, you guys have put out, I think, eight revisions or nine revisions.

Your last final revision I believe was in September 2022. Do you know what has happened to the price of copper since then?

A. (Mr. Jocham) Since 2022?

CHMN STAFFORD: I believe they testified about this already.

BY MR. DEMPSEY:

Q. Well I think he said relative to 2020.

A. (Mr. Jocham) I have the price of copper from 2022. It was approximately three and a half dollars a pound, and the cable cost at that point was $195 a linear foot.

Q. And today?

A. (Mr. Jocham) Is $4.24 a pound, and the approximate cable cost is $245 a foot.

Q. I'm sorry. Say it again. So you said it's $4 and what a pound right now?

A. (Mr. Jocham) So the quoted price which was the price of copper at the time of the quote was $4.24 -- excuse me -- $4.24 a pound.

Q. Uh-huh.

A. (Mr. Jocham) And that equates to the quoted price that we received from the vendor of the cable itself at $245 a linear foot.

Q. And in 2022 it was what? I'm sorry. I should have been writing it down.

A. (Mr. Jocham) You're fine. 2022 was approximately $3.50 a pound was the price of copper.

And then the cable price that was quoted to us

at that time was $195 a linear foot.

Q. And that was in September of 2022?

A. (Mr. Jocham) I have it marked here as 2022. I don't know the exact date. We did do multiple revisions in '22.

Q. Okay. Thank you.

Can we switch to UAZ Exhibit, I think it's 59, please? So I just have a general question about kind of your revisions.

You in your final September 2022 -- sorry. Let me get the hang here. In your final September 2022 revision, you put the cost of Section 5 and Section 6 which are essentially the same as your Section 3 now, they go around the Jefferson Park neighborhood and UMC and all that stuff.

You had put the price of undergrounding to be approximately $15 million per mile. But in your latest revision it's gone up again I think 50 percent.

Can you explain what fundamentally changed in the last two years to have you increase -- and this is your base cost, this doesn't include any adders. Can you explain that, why you increased your estimate there by 50 percent?

A. (Mr. Jocham) The cost of the cable has increased from --

Q. From 2022?

A. (Mr. Jocham) Yeah, so you're looking at an extra $50 a linear foot for cost of cable.

The labor cost has increased. And I made a reference to the Bureau of Labor Statistics, there has been a 21 percent inflation rate which is labor and materials all together.

Other than that, I think those are the quick answers I can get to you. I can look at the two reports and make a comparison and give a more detailed response if necessary. But those are the two critical items that were changed.

Q. And those two critical items would apply to anywhere on the line, not just UMC Banner?

A. (Mr. Jocham) Correct.

Q. Jefferson Park; right?

A. (Mr. Jocham) Yes.

Q. Okay.

MS. GRABEL: Mr. Dempsey, really quickly, I understand this is an exhibit that you have created. Are the --

MR. DEMPSEY: Correct.

MS. GRABEL: -- numbers found elsewhere in the evidentiary record with respect --

MR. DEMPSEY: Yes. They are. They're all

in our exhibits. So revision zero -- well, actually, yeah. Revision zero is I think Exhibit 1 of UAZ. I believe Revision 1, I don't know if it's in there but we have it -- it was -- it's UAZ -- so in your prior CEC filing, in your prior application you kind of, Clark -- or Clark, you weren't involved, they walked through all the different revisions and what the differences were between and that's what I believe Revision 1 is pulled from, which I have it in here, I just can't find it quickly.

And then Revision 8 is the latest one that you guys have already included in your own exhibits, TEP's exhibits, so yes, everything is in here. Okay.

CHMN STAFFORD: About how much more cross do you have for this panel, Mr. Dempsey?

MR. DEMPSEY: I think I'm getting close to the end.

CHMN STAFFORD: All right. Because we're getting close to lunchtime, so do you think you can wrap it up here before lunch, or do you want to take a break and come back?

MR. DEMPSEY: I think -- 15 minutes should be okay.

CHMN STAFFORD: Okay.

MR. DEMPSEY: Thanks for your patience,

guys.
BY MR. DEMPSEY:
Q. So I was looking at your images, Mr. Jocham, and you put two vaults right next to each other. Is that just -- is there going to be two vaults right next to each other, or is that a -- is that just an illustration?
A. (Mr. Jocham) So because -- go ahead. Sorry.
CHMN STAFFORD: To what are you referring?
MR. DEMPSEY: To his report, his last -- his final -- his latest report.
CHMN STAFFORD: And that is Exhibit TEP --
MR. JOCHAM: 17.
MR. DEMPSEY: Yeah.
CHMN STAFFORD: Okay. When you ask please reference the exhibit, the specific exhibit you're talking about --
MR. DEMPSEY: Sure.
CHMN STAFFORD: -- so we can all be on the same page and know exactly what it is.
MR. DEMPSEY: My apologies.
BY MR. DEMPSEY:
Q. Just generally, is that just an illustrative thing? Are you going to have two vaults right next to each other?
A. (Mr. Jocham) I'm assuming you're talking about

the GIS maps at the end?

Q. Yeah.

A. (Mr. Jocham) That is illustrated correctly. We will have two vaults adjacent to each other. And that is due to the cables, having two cables per phase. So one set of cables will go into one vault, and the other set of cables will go into the other vault.

Q. And is that typical, I'm assuming?

A. (Mr. Jocham) It allows for some -- it allows for some potential increased reliability if there was an outage. So it was determined that two vaults would be more -- meet the reliability requirements that were requested.

You could technically do one large vault. The vault size would increase. And typically it's a little less common because you have to put cables on both sides. And so the vault width increases to allow for workability.

Q. And I don't know the answer to this question. I'm not trying to trap you or anything. I just am -- do they use double vaults in the Intel HIP project?

A. (Mr. Jocham) I do not know the answer to that.

Q. Thank you.

All right. Changing gears here a little bit. Any one of you can answer this question.

So ignoring transmission lines, long-distance transmission lines, and just looking at transmission lines in a city relative to distribution lines, what would you say is the ratio? Is it 10 to 1? Is it 20 to 1? Is it 50 to 1?

A. (Mr. Robinson) Transmission miles to distribution miles?

Q. Yeah, within a city.

MS. GRABEL: Chairperson Stafford, maybe he could specify what city.

CHMN STAFFORD: I'm assuming Tucson.

MR. DEMPSEY: Well, yeah, and I would assume it's similar --

MS. GRABEL: Cities?

MR. DEMPSEY: -- I guess, depends on the density.

CHMN STAFFORD: Well, I think as a rule of thumb there's always more distribution miles than transmission miles to serve customers. Isn't that an accurate statement?

MR. ROBINSON: Yeah, that is an accurate statement.

So off the top of my head, we have about 600 miles of 138 transmission line that goes -- so there's probably around 400 miles of transmission line in

Tucson. And I think we have around 6,000 miles of distribution line.

BY MR. DEMPSEY:

Q. Perfect. Thank you. So 15 to 1.

CHMN STAFFORD: I'll take your word for that math.

MR. DEMPSEY: Well, yeah, don't hold me to that.

BY MR. DEMPSEY:

Q. All right. Some of these questions I've already asked.

I guess this is related to Mr. Gold's concerns about, you know, trying to get this done timely, which I think all of us would like to get this done timely.

Actually, you know what, I'm not going to ask that question.

Okay. So you mentioned Underground Arizona's website. Let's just talk about that for a minute.

What projects does the Underground Arizona website reference that are older than the last few years?

CHMN STAFFORD: Mr. Dempsey, I think it's probably better to have your witness testify about what's on Underground Arizona website --

MR. DEMPSEY: Yeah.

CHMN STAFFORD: -- as opposed -- they are

only probably aware of what they've looked at and their criticisms of it, but they probably are not the best party to testify about what all is on there.

MR. DEMPSEY: Fundamentally the problem is that you testified to things that aren't even on there. And then, yeah, that's what I was trying to understand.

CHMN STAFFORD: Okay. Okay. If you can point to specific things they testified that aren't accurate, then you can ask them about those.

BY MR. DEMPSEY:

Q. He mentioned things from the year 2000, 20 years ago. I'm trying to understand what he's talking about?

A. (Mr. Jocham) So I may have misspoke from the website versus your exhibits I was making reference to --

Q. Okay. So --

A. (Mr. Jocham) -- an exhibit.

Q. All right. Then you probably did the same thing on these other things you said as well. Because I don't believe we talk about the high, the pressure filled --

A. (Mr. Jocham) Yeah, that was an exhibit.

Q. Right. Thank you.

And I disagree, I guess I don't need to walk through this. I was going to walk through why your math was wrong and my math was right, but I guess we don't need to do that. Let's just say I disagree with your

math.

Sorry. Just a second here.

So, Clark, if you had proceeded with this project in 2021 and you had followed all of the local laws, could this project be done by now?

A. (Mr. Bryner) I think we disagree on what local laws are applicable.

Q. Right.

A. (Mr. Bryner) But had we proceeded with the project in 2021 and received the certificate of environmental compatibility to build the line overhead, the line would have been in service. We would have been working on retiring 46kV substation, working on the distribution system upgrades.

Q. And if you had undergrounded the mile and a half or two miles required, could it be done by now as well?

A. (Mr. Bryner) I don't know.

Q. I mean, using the time frames that Mr. Jocham has already -- I mean, yes, you have caveats but I'm optimistically --

A. (Mr. Bryner) I would say based on those time frames we probably would have finished up next year.

Q. Okay. So I guess, Clark -- hold on. Sorry. Some of these questions I already asked.

MR. DEMPSEY: I'll stop right there.

CHMN STAFFORD: That concludes your cross-examination?

MR. DEMPSEY: One second. Let me see.

BY MR. DEMPSEY:

Q. Oh, no, I almost missed a really good one.

So table that you provided this morning, Exhibit 31, so I believe you've kind of answered this, but I want to be clear. What assumption are you using for underground cost? Is it the $25 million a mile or what is this based on?

A. (Mr. Jocham) Yeah, the underground costs for -- we worked over the weekend went back through and updated the tables based off of each alignment, it is based off of the base cost plus adders.

So approximately, for example, Route 1 is an example, was approximately 20.8 million a mile with the adders.

Q. And what about Route B?

A. (Mr. Jocham) Route -- excuse me -- B?

Q. Yeah.

A. (Mr. Jocham) Route B for the Gateway Corridor and University Area Plan Route B was 21.2 million a mile with adders.

MR. DEMPSEY: Okay. That's it. Thank you.

CHMN STAFFORD: That concludes your

cross-examination, Mr. Dempsey?

MR. DEMPSEY: Yes.

CHMN STAFFORD: All right. Excellent. With that we are approaching 90 minutes and it is lunch hour. Let's take an hour recess. We'll be back around 1:30. We stand in recess.

(Recess from 12:23 p.m. to 1:34 p.m.)

CHMN STAFFORD: Let's go back on the record.

I believe Mr. Dempsey had wrapped up his cross.

Ms. Grabel, did you have redirect for these witnesses?

MS. GRABEL: Thank you, Mr. Chairman. Yes, I do.

REDIRECT EXAMINATION

BY MS. GRABEL:

Q. Mr. Robinson, I'm going to direct the first question to you.

The City of Tucson talked to you quite a bit about the time line to construct an underground line down Campbell or, frankly, anywhere else.

I think you mentioned that you could encounter utilities or culturally sensitive artifacts during the

construction process that would further prolong the time line?

A. (Mr. Robinson) Yes. That's correct.

Q. Are you familiar with any construction projects in the City of Tucson recently that were delayed because the entity constructing the project had actually discovered utilities or other items buried belowground that they didn't anticipate?

A. (Mr. Robinson) I am. The -- actually, in 2012, the light-rail system that went through downtown and actually went through a lot of this project encountered a very similar delay that I described.

Q. Okay. Thank you.

And we are handing out an exhibit that is entitled TEP Exhibit 33, which is an article containing a press release from the City of Tucson that talks about this issue.

First of all, is the streetcar project from the City of Tucson within the same general vicinity of the Midtown Reliability Project?

A. (Mr. Robinson) Yes. The overall area runs through the U of A and through downtown Tucson.

Q. And would you anticipate that the Midtown Reliability Project would likely run into the same type of issues that the City ran into when constructing the

streetcar project?

A. (Mr. Robinson) Yes.

Q. Okay. Thank you.

And if you would read for me into the record the portion of this article that is quoting the City's press release just to talk about some of the items that they found belowground.

A. (Mr. Robinson) Sure. "As excavation began, it became apparent that some of the utilities that had been installed decades earlier were not actually placed in the locations shown on the plans or plans -- or no plans existed for the utility placement.

"This means that the current design of the new sewer line conflicts with the existing underground utilities already in place, which include electricity, gas, and water lines as well as fiberoptic banks and drainage facilities.

"To install the new sewer lines at the appropriate grade to function correctly the engineers must redesign the plans."

Q. Okay. Thank you very much.

And are you aware as to whether or not the discovery of these unexpected utilities underground resulted in a delay of the streetcar project?

A. (Mr. Robinson) Yeah. That one discovery

resulted in several weeks' delay and redesign and multiple closures.

Q. All right. Thank you very much.

Mr. Jocham, the next question is for you.

You also had a conversation with the City of Tucson's attorney about the excavation for the underground versus overhead construction, and Mr. Lusk raised -- Lusk, I'm sorry -- raised the potential that couldn't you just kind of turn the transmission line and cross the underground transmission line and cross the street and then continue on the other side of the street to avoid any potential, you know, culturally sensitive artifacts or other things discovered?

Are there any concerns or challenges associated with doing that on an underground transmission line?

A. (Mr. Jocham) Yes. So when you are turning an underground transmission line, it doesn't really turn on a dime. You have to curve it and bend it. The cables are big and thick, 5 inches in diameter as we discussed.

And so they don't bend very easily, so you have pretty large radius turns, which would basically cut across all lanes of traffic at that point and to the other side of the street, which would have some pretty significant access impacts and could potentially shut down the entire road if constructed to cross the road in

such a manner.

Q. All right. Thank you.

And would you have to do additional engineering -- detailed engineering design just to actually cross the street?

A. (Mr. Jocham) Yeah. If this was discovered during construction after the initial plans had been submitted, yeah, there would be a pretty lengthy reengineer that would be required.

For underground transmission, we have to calculate the pulling of the cable itself, which assesses sidewall pressure and the actual tension on the cable to make sure it's not exceeded. Any turns or bends increase sidewall pressure and increase tension on the cable as it's pulled into place.

Q. Okay. Thank you very much.

Mr. Robinson, I think back to you for this one.

There were questions from Mr. Dempsey about the preferred ampacity for the Midtown Reliability Project and why we needed to use a 6,000-kcmil cable as compared to a 5,000-kcmil cable.

Can you explain first why the underground transmission line would need a 6,000-kcmil ampacity?

A. (Mr. Robinson) Yes.

So our transmission planning department decides

the capacity of the overhead line based on the saturation study and future forecast loads.

So when they size that line, and when there was discussion about potentially having a portion of this line undergrounded, they wanted to match that capacity for the future growth in the saturation study. And so they asked that the underground segments have the same ampacity rating that the overhead transmission line would have.

Q. And what would be the ramifications if you were to lower the ampacity on the underground portions?

A. (Mr. Robinson) So from a planning perspective, that line segment could then become a limiting element of the ampacity or the capacity of that path.

So what would happen is potentially in the future as loads grew we might need to put in another line or a different project to account for that lower capacity.

Q. And when you say a limiting factor, do you mean that you could only count on that lower ampacity for the entire line?

A. (Mr. Robinson) Yeah. That's correct.

Our line rating is what the least -- the least ampacity carrying element is. It might be a jumper. It might be a switch. It might be a segment of conductor or

a transformer that's in the alignment path, but each path will have a limiting element associated with it.

Q. Thank you.

Mr. Jocham, I think this goes back to you.

Mr. Dempsey used the term oversized quite a bit in his examination of this panel.

Are we oversizing the Midtown Reliability?

A. (Mr. Jocham) No.

So in our report it does identify different runs that were performed in CYMCAP, and the two 6,000-kcmil conductors are required for deeper crossings, which we would expect on this project.

So sizing of the cable meets the ampacity requirements for the project.

Q. Thank you.

And Mr. Dempsey also asked you about the potential requirement to underground transmission facilities in downtown Phoenix.

Is undergrounding transmission lines in downtown Phoenix a safety issue?

A. (Mr. Jocham) Yeah. So there's clearance issues to the face of buildings, large buildings are built up right up against road right-of-way, and so there's really no place for a transmission -- an overhead transmission line to be built.

You have your electrical clearances from the National Electric Safety Code, which is the adopted code in the State of Arizona by law that we have to meet, and there just really isn't space for that. And so that's why the underground lines in downtown Phoenix are a necessity.

Q. Okay. Thank you.

And Mr. Dempsey also asked you about a report that he found that was contained in exhibit -- it showed on the screen UAZ-0205. It might have a different exhibit number today.

But are you familiar with that report?

Have you read it in detail?

A. (Mr. Jocham) I've reviewed it.

I wouldn't say I've read it in detail.

Q. Do you know what kind of conditions the author assumed to reach an estimated lifespan of 100 years in that report?

A. (Mr. Jocham) Yeah. It seems like the report was lab based and not -- not field based.

CHMN STAFFORD: Which exhibit is this?

MS. GRABEL: It's Exhibit UAZ-0205. It's the one that Mr. Dempsey displayed. Which is it? I guess it's UAZ-16 now.

CHMN STAFFORD: Okay.

MR. DEMPSEY: That's just the Bates stamp.

MS. GRABEL: Okay. Thank you.

BY MS. GRABEL:

Q. Is it reasonable to believe that an underground transmission facility operating outside of lab conditions but with in a real world environment will have a lifespan of less than 100 years?

A. (Mr. Jocham) Yeah. Line loading, as I had mentioned in my prior testimony, will impact the lifespan of an underground XLPE cable.

The hotter the conductor gets the quicker that the insulation will deteriorate and will need to be replaced over time.

Q. And do you know of any document that's used in the energy industry that estimates the lifespan of an underground transmission facility anywhere near the estimated lifespan contained in that report?

A. (Mr. Jocham) Most of the cable vendors that we use and as I had testified to prior, EPRI, all identify a 40-year lifespan typical of cable.

And as I testified prior, the harder you are on the cable the faster it will deteriorate. And if you do operate it at lower temperatures, there is the probability that it could last longer.

Q. Thank you.

And finally, do you believe -- are you aware, rather, that whether UAZ-16, was it, the report we're talking about 16 -- is a peer-reviewed report or study?

A. (Mr. Jocham) It does not look peer-reviewed. All the names on the report are identified to be part of the same company.

Q. Do you know what that company does?

A. (Mr. Jocham) I believe they produce cable.

Q. Thank you.

Mr. Dempsey also asked you a question about whether there was a spare cable on the SRP HIP project.

Do you recall that?

A. (Mr. Jocham) I do.

Q. And I believe you testified that there was no spare phase; correct?

A. (Mr. Jocham) I'm not aware of one. I'm -- I was not part of that detailed design, but I'm not aware that there is.

Q. Do you know whether they installed a spare conduit to later include a spare line if one became necessary?

A. (Mr. Jocham) Yes.

So as part of the -- their CEC filing, which was publicly available, they identified spare conduits and a position for a spare circuit in the future.

Q. All right. Thank you.

And so even without the spare, do you know how else Intel might be provided with power if the underground line went out?

A. (Mr. Jocham) Yeah. As a part of those series of projects, and it's visible from the highway and from the road, there is a double circuit overhead line running down the backside of Intel along the Gila River Indian reservation property.

Q. So they are fed from additional transmission facilities that could serve as a backup source of power; correct?

A. (Mr. Jocham) There are two other circuits that support Intel, yes.

Q. All right. Thank you.

And finally, if you could turn to Exhibit UAZ-59. And that is the spreadsheet that Underground Arizona had displayed on the screen that listed various figures contained in prior versions of the S & L study.

Do you recall that?

A. (Mr. Jocham) Yes.

Q. Did you have a chance to review that in greater detail over the lunch hour?

A. (Mr. Jocham) I did.

Q. Do you have anything that concerns you about the calculations or errors that you discovered in Underground Arizona's document?

A. (Mr. Jocham) Yeah. I think there is a few items.

One, the document here and the difference that's identified as taking the underground minus overhead cost and then sub -- and then dividing it by the overhead -- the total overhead cost, it is not taking the total underground cost and dividing it by the total overhead cost, which is the multipliers that we're identifying in our report -- in the S & L report, excuse me.

So he -- the Exhibit UAZ-59 is basically taking the difference between underground and overhead and then dividing it by the overhead cost. Not quite an apples-to-apples as the way the S & L is representing it.

In addition, though, the numbers that were explicitly asked to me in cross are correct. They are for segments 6 and 7, not for 5 and 6 as identified in testimony.

In -- I guess one more item is the overhead cost per mile that's identified in the spreadsheet on the screen, UAZ-59, it identifies a use of $4.1 million per mile as the overhead cost.

And as we had discussed prior, that number I

believe -- and I'm not going to completely assume so, but I believe that comes from UAZ-8, which is an APS document which, again, identifies a double circuit 230kV line with double circuit 69kV underbuild. And those numbers, they provide two sets of numbers, right-of-way and construction costs, and then a total cost.

If you take that total cost, you get about 4.1 to 4.3 million dependent on the line segment that APS identifies.

If you take the right-of-way cost out, it's all the way down to 3.3 million or less.

And then, again, that's a quad circuit line, not a single circuit 138kV line.

So the number -- overhead number that's being utilized is inflated versus what TEP is representing as their overhead cost of 1.2-ish million, which, again, was represented in our -- in the TEP-31 document that truly identifies the costs that Clark and TEP have generated as far as overhead costs for the 138kV line.

Q. Thank you.

MS. GRABEL: That's all the redirect that I have, Mr. Chairman.

CHMN STAFFORD: All right. I believe some of the members had questions.

MR. DEMPSEY: Can I do follow-up as well?

CHMN STAFFORD: No.

MR. DEMPSEY: No? Okay.

CHMN STAFFORD: Members, questions?

I thought you had a question, Member Drago.

MEMBER DRAGO: So I wanted to build off of Member Gold's question about the storm last night and the pole types that fell down due to the storm.

We were wondering -- well, I'm wondering if we'd be worth putting on the record -- and I'm not sure who this goes to, but in your attempt for reliability, in that reliability context, is there a design specification for wooden poles versus steel poles and what those poles can handle in terms of a storm event, wind, things like that?

MR. ROBINSON: I'll do my best to take that question and answer it to the best of my knowledge and ability, right.

So Tucson Electric Power's new standard -- and it's been a standard for quite a while -- is the use of steel poles over wood poles. And the use of the governing codes that require safety factors for steel poles is different than that for wood poles.

And it's a little more -- and I hate to use to word robust, but it's more complete and more scientific than the wood pole strength calculations that

are used.

So we still will use a wood pole where -- in a distribution setting, not in a transmission setting but in a distribution setting where it might be on a back lot line or in a distribution crossing configuration where the -- where the wood and the nature of the wood being insulated makes it a safer pole to use for the crews while they're installing the pole, right.

So we'll still install some wood poles on our system due to safety consideration, but our standard is a steel pole because of the reliability and the additional strength and the additional design consideration that goes behind the engineering of the poles themselves.

MEMBER DRAGO: Thank you.

I guess I'm trying to understand that could we say that -- if this project was completed as of last night and that significant storm occurred, would we have been out of power for that long?

MR. ROBINSON: I think we could easily say -- confidently say that the impact of that storm wouldn't have been as significant as it is today.

MEMBER DRAGO: Thank you.

MS. GRABEL: And if I can follow up on that, Mr. Chairman.

Is it true that the Midtown Reliability Project not only replaces wooden poles with steel poles, but it's actually burying a significant number of wooden distribution poles?

MR. ROBINSON: Yes, that's true.

The application as filed would reduce the number of wood distribution poles and transition them to underground in this project.

MS. GRABEL: And would you agree that further mitigates the impact of a microburst like Tucson saw yesterday evening?

MR. ROBINSON: Yes.

MS. GRABEL: Thank you.

Anything further?

CHMN STAFFORD: So does that conclude your direct case?

MS. GRABEL: Except that we do have the road corridor map that the Committee asked for. If you would like us to put that on now or whenever you want.

CHMN STAFFORD: Is that going to be TEP-32? Because that's the gap --

MS. GRABEL: It is. Yes.

CHMN STAFFORD: -- I have in my exhibit list.

MS. GRABEL: It's TEP-32.

CHMN STAFFORD: Okay. Let's do that.

MS. GRABEL: And we'll do this through Mr. Bryner.

CLARK BRYNER and MR. ROBINSON,
called as witnesses as a panel on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

BY MS. GRABEL:

Q. So, Mr. Bryner, while Mr. Ancharski is handing this out, I'm going to ask you to first just discuss the various pages that the Committee is getting because they're voluminous.

A. (Mr. Bryner) Sure.

So you're getting a map set just of our preferred route, so that's Route B and 4 that shows a proposed -- a proposed corridor width that's more minimal than our 400-foot blanket corridor that we'd requested before.

So the top page shows sort of a key that shows you what the pages after that are. So there's 10 pages in total.

So the top one, again, is sort of a map key, and it shows you where page 1, 2, 3, 4, 5 through 9 are located with respect to the overall routes.

And if you go to each of those route maps, you'll see the proposed corridor overlaid on an aerial image with parcels. So you can see residential, commercial, different parcels from Pima County's parcel database are overlaid there.

So that's what's on the maps.

Do you want me to talk about the widths?

Q. Yes. Why don't you do that.

A. (Mr. Bryner) Okay. So the way we've done this is we understood --

CHMN STAFFORD: Are you going to put this up on the screen?

That would be very helpful I think to everybody.

Have these been sent to Tod to send to Member Somers and Little?

MS. GRABEL: Yes.

CHMN STAFFORD: Excellent. Excellent.

BY MS. GRABEL:

Q. Okay. So we know there were concerns about some of these corridors overlapping two, three kind of lots deep along either side of the intended transmission line

route. And so we wanted to illustrate how these diminished or minimized corridors would affect adjacent properties.

But basically, we're still taking a somewhat blanket approach because we wanted to request a corridor -- and let me just caveat all this, while we're illustrating this for Route B-4, this same approach would be true for any of the routes.

So we took 200-foot -- so 100-foot on either side of the center line for the road for any of the arterial streets, so that was like Grant Road, Campbell, 36th Street, those major roads, with the one exception being Euclid.

Euclid is classified as an arterial, but, as you saw when we went out on the field trip, it's not nearly as wide as some of those other roads. So we're asking for 120-foot-wide on Euclid, 60 foot either side of the center line. And that was the same distance we were asking for on any of the collector streets like Park, Tucson, those would have been considered collector streets. And then 100-foot wide, 50 foot either side of center line for any residential roads.

So that was just to account for while it still does cross into lot lines or parcels, it gives us the road right-of-way plus a reasonable -- I'll say a

reasonable buffer to ensure that, Hey, if we've got to get a private easement for an aerial overhang on a private parcel that it would be included in that corridor.

And then the last thing I wanted to mention is we wanted to still ask for the 400-foot width on crossings of Aviation, the Aviation Highway. It's ADOT railroad right-of-way right there, so it's not necessarily affecting private parcels, but it just gives us a little bit more wiggle room for those taller spans and micrositing the placement of those poles.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: What governs the right-of-way, the existing rights-of-way and easements that you have now?

Is it the franchise agreement or is it something within the City of Tucson or is it something done through us?

How does that exist now?

MR. BRYNER: Let me clarify.

So you're talking the legal land right or you're talking the width?

MEMBER RICHINS: The legal land right.

MR. BRYNER: So of various means.

So with the City of Tucson we have our franchise agreement. So that gives us the right to place our facilities with any City of Tucson owned rights-of-way.

We have -- with like ADOT we would get, I believe, they grant licenses to be within their rights-of-way. Private property, we'll secure easements. And those are we don't have to ask for your permission for that. We just go out and we secure that.

MEMBER RICHINS: So I think I'm hearing, like, four or five different ways that your rights-of-way are governed.

MR. BRYNER: There's many different numbers.

If you go across federal land, you're going to get special use permits and different things.

If it's your land --

MEMBER RICHINS: Has your --

MR. BRYNER: -- you'll get leases. Sorry.

MEMBER RICHINS: No. I'm trying to be way better for Jennifer. I've been on her naughty list, and I want to get off it.

So does your franchise agreement renewal address anything that -- I mean, could the potential renewal address anything that is helpful for you guys in

your right-of-way?

And, I mean, I'm trying to understand the functionality of the franchise agreement within granting a corridor.

So the City grants you in the franchise agreement certain rights of city-owned rights-of-way that you can use for utility infrastructure?

MR. BRYNER: Correct.

MEMBER RICHINS: Assuming they will limit that depending on their own infrastructure needs.

MR. BRYNER: I think so. Yes.

MEMBER RICHINS: Yeah. Okay. Thanks.

CHMN STAFFORD: Quick question. So how does TEP secure an easement on private property?

MR. BRYNER: So kind of our process is we'll do an appraisal of it, find out what the fair market value is, we'll extend on offer to that landowner, and begin negotiations from there.

CHMN STAFFORD: And typically they will -- you'll reach some sort of agreement with the property owner?

MR. BRYNER: Almost every time.

CHMN STAFFORD: And the not every time, that's -- what's the remedy?

MR. BRYNER: So that would lead to

condemnation, which is something we always try to avoid and almost always have been able to avoid.

CHMN STAFFORD: Excellent.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Member Richins, do you have a question?

MEMBER RICHINS: Yes. Who has the condemnation right?

MR. BRYNER: The utility.

MEMBER RICHINS: TEP?

MR. BRYNER: TEP.

MEMBER RICHINS: The City has one.

MR. BRYNER: So -- yes. But TEP --

MEMBER RICHINS: You guys also have condemnation authority.

MR. BRYNER: That sounds right.

CHMN STAFFORD: Oh --

MEMBER RICHINS: I did it again. I'm so sorry.

MR. BRYNER: You can put that one on me.

CHMN STAFFORD: Yes. Gentlemen, one at a time, please.

MR. BRYNER: Yeah. So the utility TEP also has condemnation authority.

CHMN STAFFORD: Any other questions from

members?

(No response.)

CHMN STAFFORD: I'm going to allow the parties to cross-examine the witnesses on the two new exhibits that were introduced on redirect, TEP-32 and TEP-33.

Ms. De Blasi.

MS. DE BLASI: I do have one question, Chairman.

And thank you for putting these together. It's really helpful.

CROSS-EXAMINATION

BY MS. DE BLASI:

Q. Mr. Bryner, I recall that you said you were going to be asking for a wider corridor along the routes D, 1, and 6 that would go along Lester or Ring Road.

Is that still accurate? Or 400-foot corridor?

A. (Mr. Bryner) So -- yeah. So you're talking about just west of Campbell getting into the Vine Substation?

Q. Correct.

A. (Mr. Bryner) So if that were selected, that would be our preference for maximum flexibility. Knowing that Ring Road is owned by Banner and so we don't have an

existing land right, and from conversations with Banner, I understand that you wouldn't really be agreeable to a land right on Ring Road.

So if that remained the case, then we'd want to ensure that our corridor at a minimum encompassed Lester where we did have a land right so we would have a viable route.

Q. Okay. Thank you.

So I'm just wondering -- and I know you're generating these, so thank you for doing that, but do you yet have any kind of exhibit showing that?

I know you haven't entered it yet, but we're about to have testimony. It would be helpful to see it if you did.

A. (Mr. Bryner) I don't have it.

Q. Okay.

A. (Mr. Bryner) I was working on creating something, but I think if that becomes a route that the Committee is looking at selecting, then we will definitely create an exhibit so that you can see it.

MS. DE BLASI: Okay. That was all I have.

CHMN STAFFORD: Now, where -- that would be on -- are you talking about that would be in Section 4 of first map of this exhibit of Exhibit TEP-32?

MR. BRYNER: It would be sort of on

Section 4, but primarily extending outside of Section 4 to the east.

CHMN STAFFORD: Oh, okay, so it would be outside of the box -- the Section 4 box.

And to the east you said?

MR. BRYNER: Correct. So this -- the maps we created for TEP Exhibit 32 are just of the preferred route, and so that would be pertinent if D or 1 or 6 became -- or were -- we were discussing those routes.

CHMN STAFFORD: Okay. All right. Thank you.

Any other questions from members?

Ms. De Blasi, does that conclude your questions?

MS. DE BLASI: That's all I had, Chairman.

MEMBER RICHINS: Ms. De Blasi, I just had one question.

CHMN STAFFORD: Oh.

MEMBER RICHINS: So with the narrowing of the routes, particularly on page 4 where it goes into the Vine Substation, is this the space -- we talked about chicanes and the opportunities for poles that may be sitting in the roadway that also go along with the City's desire for traffic calming. Would that be a route where that would be evaluated?

MR. BRYNER: In my mind, that would be an ideal location.

MEMBER RICHINS: Okay. Thank you.

CHMN STAFFORD: Are you talking about on Adams Street?

MEMBER RICHINS: Yes. Where the Vine Substation where it comes in off of the line from 4 from at down Adams and also --

CHMN STAFFORD: Vine.

MEMBER RICHINS: Yeah. What's the other north/south street?

CHMN STAFFORD: Vine Avenue, it looks like there.

MR. BRYNER: Yeah. So between Park Avenue --

CHMN STAFFORD: You're talking about Park Avenue? You're talking about Park Avenue?

MEMBER RICHINS: Yes. Park.

CHMN STAFFORD: Okay. So we're talking about Park Avenue, Adams Street, and Vine Avenue?

MEMBER RICHINS: Yes.

CHMN STAFFORD: Okay. Mr. Bryner, do you have something to add?

MR. BRYNER: No. I apologize.

CHMN STAFFORD: Does that conclude your

cross, Ms. De Blasi?

MS. DE BLASI: Yes.

CHMN STAFFORD: All right. Mr. Lusk.

MR. LUSK: Thank you, Mr. Chairman. Just real quickly.

CROSS-EXAMINATION

BY MR. LUSK:

Q. Mr. -- actually, I'm not sure who entered TEP-33. Is that the news article, was it?

A. (Mr. Robinson) Yes.

Q. Oh, I'm sorry, 32.

Was that you, Mr. Robinson --

A. (Mr. Robinson) Yes.

Q. -- that discussed it?

Just to be clear, that was not an archaeology issue. That was a utility coordination issue?

A. (Mr. Robinson) Yeah. It was a utility conflict resolution. Yes.

MR. LUSK: Thank you.

CHMN STAFFORD: Mr. Dempsey.

MR. DEMPSEY: So the only questions I would have would be math questions, and I don't know if that's -- I can save it for my testimony and walk Mr. Jocham through the math or I can ask him questions

right now if you'll allow it. I can ask him one or two questions.

CHMN STAFFORD: About the map?

MR. DEMPSEY: No. So that's why I was --

CHMN STAFFORD: About the article?

MR. DEMPSEY: No.

CHMN STAFFORD: Okay.

MR. DEMPSEY: All right.

CHMN STAFFORD: What did you have a question about?

MR. DEMPSEY: He had mentioned that our math was wrong, and I wanted to point out how it wasn't.

CHMN STAFFORD: Oh, you can do that on your direct then. Okay?

MR. DEMPSEY: Perfect. Fine.

CHMN STAFFORD: Okay. All right. Any further redirect?

MS. GRABEL: No further redirect, Mr. Chairman.

CHMN STAFFORD: All right. Thank you.

All right. Well, let's go to your exhibits.

I think we've covered everything except for, like we said, TEP-18 and 19.

I presume you're holding those as a

rebuttal witness.

MS. GRABEL: Yes, Mr. Chairman. We will be calling rebuttal witness if determined necessary after we hear the direct cases of intervenors in this matter.

CHMN STAFFORD: Okay. Well, with that, we'll admit Exhibits TEP-1 through 17 and Exhibits TEP-20 through 33.

(Exhibits TEP-1 through TEP-17 and TEP-20 through TEP-33 were admitted.)

CHMN STAFFORD: All right. Ms. De Blasi, are you prepared to call your witness?

MS. DE BLASI: We are, Chairman.

CHMN STAFFORD: Would you like a brief recess to reconfigure the witness area with your witness setup?

MS. DE BLASI: That would be terrific.

CHMN STAFFORD: Okay. Let's take a five-minute recess to allow the next panel to convene. We stand in recess.

(Recess from 2:08 p.m. to 2:16 p.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. De Blasi, would you like to call your witness?

MS. DE BLASI: Yes.

Just before I start, I provided our exhibits to all the Committee Members and the parties. I believe TEP also put them on the Committee Members' iPads. So I believe everybody has those.

Mr. Barkenbush, would you --

CHMN STAFFORD: Call him to the stand first and let's get him sworn in.

MS. DE BLASI: Oh, go ahead. Sorry. Jumping ahead.

CHMN STAFFORD: Mr. Barkenbush, would you prefer an oath or affirmation?

MR. BARKENBUSH: Oath.

CHMN STAFFORD: Do you swear the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth so help you God?

MR. BARKENBUSH: Yes, I do.

CHMN STAFFORD: Please proceed, Ms. De Blasi.

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MARK BARKENBUSH,

called as a witness on behalf of Banner University Medical Center and Banner Health, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. DE BLASI:

Q. Okay. Mr. Barkenbush, can you please state your name and your business address.

A. Mark Barkenbush. My business is 2901 North Central, Suite 160, Phoenix, Arizona 85012.

Q. And to whom are you employed and what is your role?

A. I'm employed by Banner Health. I am currently the vice president of facilities services for Banner Health.

Q. And did you prepare or direct to be prepared Exhibits BUMCT-1 and the presentation marked as BUMCT-2 for your testimony?

A. Yes, I did.

Q. And is that content true and correct to the best of your knowledge?

A. Yes, it is.

Q. Can you please briefly discuss your professional experience.

A. I have been employed by Banner Health for the past 17 years. Prior to that I've worked for two other health care systems, one in Phoenix and one in the Midwest.

I'm a degreed engineer with both undergraduate and graduate degrees in electrical engineering. I focused my entire career in the health care facility services field.

Q. And with respect to this project, can you just briefly describe your facilities experience?

A. I've been a part of Banner - University Medical Center Tucson since our acquisition of the University of Arizona Health Network. I had familiarity obviously with the campus being born and raised in Tucson and going to the U of A, but my professional role started in 2014 where I was leading our campus expansion project that we embarked upon shortly after our acquisition and have been a part of supporting the campus and the facilities ever since.

Q. And with respect to your presentation on Exhibit BUMCT-2 as filed, were there any changes to that presentation?

A. We made one change to it to add page numbers in

case we needed to move back and forth between them.

Q. Okay. So referring to your slide presentation, can you please provide an overview of Banner Health and Banner - University Medical Center Tucson?

A. Sure. Let me provide just a few, I guess, broader contextual remarks about Banner Health for some of the members who might not be familiar with us.

We're the largest employer in the State of Arizona with over 50,000 employees in Arizona. We operate, though, in six states. The majority of our operations are in Arizona, but we do have facilities in six states.

We're one of the largest not-for-profit health care systems in the country. And then let me start to drill down a little bit deeper into kind of the specific options here in Tucson.

The main campus or the Tucson campus that we refer to as the main campus has 649 total licensed beds. 184 of those are intensive care, 36 of those are neonatal intensive care, so a sizable number of those beds are high acuity beds.

Some 2023 operating statistics. We had over 25,000 total admissions, that represented as another way in 167,639 total patient days, a little over 18,000 surgeries, 2,746 newborn delivers. It's a busy emergency

department with nearly 70,000 emergency department visits. And in total there's 3,210 full-time equivalent employees.

Our facility is one of two Level 1 trauma centers in southern Arizona. The other one is the Carondelet St. Jose's Hospital. We have been a Level 1 trauma designation for quite some time.

We're the primary teaching affiliate for the University of Arizona College of Medicine both here in Tucson and in Phoenix.

There's multiple clinical specialties that we offer in the oncology or cancer area, cardiology, neurosciences, and pediatric services as well.

We also are very proud of our ranking on the U.S. News & World Reports as the number one hospital in Tucson and the number two hospital in Arizona. In the health care industry that's a bit of a coveted type of gold standard to have those types of ratings.

To drill down a little bit further, the -- just a little bit about our history in Tucson. We acquired the University of Arizona Health Network and about 30 acres of land in 2014. The land was under ownership of the Arizona Board of Regents.

And at that point in time the University of Arizona Health Network was struggling financially in very

dire straits on the verge of bankruptcy. Banner was one of the probably only health care systems in Arizona that could step in and assume that risk and take on the challenge of trying to turn around the operations fiscally as well as make a sizable capital investment because capital investments had been constrained and deferred for several years.

So in 2014, planning began for a new bed tower, which includes new operating rooms, new diagnostic imaging, a new front entrance, along with some other important support services like kitchen and dining services.

We relocated the majority of the ambulatory services into a building that we refer to as the North Campus. It's further north on Campbell Avenue at Allen Road close to River Road. A large building there was built to accommodate that. And that was to separate out a lot of the ambulatory traffic that was on the main campus so that we could devote more of that specifically to inpatient traffic.

There is still some ambulatory services on the campus, but mostly it is now all inpatient services, so we decanted a lot of traffic out of there. And in the process of doing so we significantly improved the patient and visitor access.

Well, that investment that we committed to at the time of the acquisition was $500 million. But since then, we have completed 129 separate projects, including that one at 500 million, bringing the total investment as of 2024 to just over $700 million on the campus.

BY MS. DE BLASI:

Q. I think there is one more slide.

A. I'll give you a little bit of context on the campus in some upcoming slides with some aerial images. So some of this is text, but it sets the stage.

But the history of the campus started in the late '60s, and then was expanded in the early '90s, expanded again in the mid-2000s.

And all of that growth was under the auspices of ownership under the Board of Regents, and thus was not required to comply with City of Tucson zoning codes and standards.

And as a private developer, and owning the land and the property, we were aware that we would have to comply with all of City of Tucson zoning ordinances. So things like stormwater retention and detention property setbacks, building heights, and parking requirements were all things that we knew we would have to comply with.

And we were fine with that. But undertaking that required that we put into place the City of Tucson

refers to it as a planned area development or a PAD type of zoning because the other zoning classes don't suit themselves very well for a hospital type of use.

And that's not uncommon. That is not a criticism of the City's zoning ordinances. We run into this in many of our municipalities. And so we set out to put a PAD in place. And a part of that involved significant outreach with surrounding neighborhoods that were impacted by our proposed development in an outreach process that was very similar to what the Committee has heard in Tucson Electric's testimony about their outreach efforts.

We pride ourselves on being a good neighbor and a responsible developer, and so we had significant communication with all of the neighborhood associations. But one that you're going to hear more about is our neighbor directly to the north, the Jefferson Park Neighborhood Association.

Q. So given all of that would you say that Banner is a unique and critical hospital and medical facility for the Tucson community and larger region?

A. We believe that we are for a few different reasons. As I mentioned, we are a Level 1 trauma center. And there is one other, St. Joseph's Hospital.

But the breadth of services that we offer at the

main campus is arguably a much higher, much more complex level of services than offered elsewhere. I think we're recognized in southern Arizona for the Level I trauma center designation.

If there were a president visiting the Tucson market, we would be designated as the location where the president would be taken. So the reputation for the hospital and the relationship with the college of medicine clearly distinguishes ourselves.

Q. And can you talk just a little bit more about some of the services that are provided there, specifically what types of things that make the hospital medical campus so unique?

A. So we have a fair number of solid organ transplant programs. We have specialty cardiology and neurosciences or brain specialties.

The pediatric specialties speak for themselves. We have a large neonatal intensive care unit and take care of some of the most fragile babies. We have a pediatric bone marrow transplant, adult bone marrow transplant, stem cell transplants, so things that you only find at a handful of hospitals in any state.

Q. Okay. Let's move into some of the history.

If you'd like to go through the slides. And we apologize. We understand these are little bit hard to

see, but they're a little bit older overviews.

So, Mr. Barkenbush, can you sort of orient us to some of the landmarks around the campus.

CHMN STAFFORD: Member Hill, I believe you had a question for this witness.

MEMBER HILL: Yeah. I just wanted to go back to the previous slide.

MR. BARKENBUSH: Sure.

MEMBER HILL: It's mostly that I wanted to confirm a little bit about time lines and entitlements to the property.

When you purchased the property in 2014, when was the PAD approved?

MR. BARKENBUSH: The PAD was approved, I believe, in 2016. It was a couple -- at least a solid year, year and a half.

MEMBER HILL: Okay. And in the previous slide even -- you talked about the new bed tower, potentially some new structures.

Are all the structures that you've added to the facility, were those added once the PAD was approved, or were there some exceptions made prior to the official approval of the PAD?

MR. BARKENBUSH: No. They were all added after the PAD was approved.

MEMBER HILL: Okay. Thank you.

MR. BARKENBUSH: You're welcome.

BY MS. DE BLASI:

Q. Okay. Mr. Barkenbush, please proceed with the sort of orienting us on the photograph and then some of the history.

A. Sure. I've tried to find some historic aerial images. This first one is a little dim, and so I'm using the laser pointer to help orient you.

But the next several aerial ages are all organized the same way where Campbell Avenue is at the right-hand side of the image, and the Ring Road -- although not shown in this because it didn't exist back in the '70s, but the Ring Road and Lester portions of some of the routes are at -- essentially at the top of the image.

So back in the early '70s, what existed on the campus of note was the original hospital, these two towers where the cursor is moving, the college of medicine. And of note, there's a helipad. It's hard to appreciate from this aerial image, but this is a ground-mounted helipad. So it's down at grade.

And then those of you from and familiar with Tucson will remember the polo fields and polo village that existed in that vicinity back at the time.

As the campus grew, I picked a few different snapshots. So this is a 2001 aerial image. And so those original structures are called out with blue callouts, but at this point what we refer to as the north expansion had occurred as a four-story addition. There was a parking structure added for visitors and staff.

You can now see portions of the Ring Road that had been developed. And these buildings that are called out with hospital security and maintenance and facility and office/research buildings, these were temporary buildings. They were modular trailers. They were moved on to site. They were intended to be there for just a few years back in 2001 and remained there for many, many more years than ever intended. And you'll see in the next slides that those were eventually removed.

Progressing forward to 2008, in this image the major change that had occurred was the addition of the Diamond Children's tower. That's this backwards L-shaped building that I have called out with the red callout.

The remaining portions of the campus were essentially the same, but that was a significant addition to the campus back --

CHMN STAFFORD: Member Drago, I believe you had a question.

MEMBER DRAGO: Yeah. Hi. Can you point

out where we stood when we did our field trip --

MR. BARKENBUSH: Yes.

MEMBER DRAGO: -- in that garage.

MR. BARKENBUSH: We -- so we were not in this garage. We drove past it. As the shuttle buses entered the campus from Campbell, we were driving past it.

The Vine Substation -- you'll see in the next image the parking garage that we saw from the proposed Vine Substation location is where this surface parking lot is. So we were standing on the tour approximately where my cursor is positioned right there in that image.

MEMBER DRAGO: Thank you.

MR. BARKENBUSH: You're welcome.

I included this --

CHMN STAFFORD: Please proceed. Go ahead.

MR. BARKENBUSH: Thank you.

I included this 2015 aerial image because it shows that parking structure that had been added and where we were standing. But it sets the stage for what remained on campus and what changed with our $500 million project.

So it's a pretty good reference point as progressed through this. So when Banner entered the

picture and acquired the property, this is how things looked at that point in early 2015.

Advancing to the current aerial image, a few things I want to point out.

So many of those or all of those modular buildings had been removed. So they were in this image close to the Ring Road.

The Ring Road has been altered and widened, and I'm going to point out a number of features.

So just as point of reference Diamond Children's is positioned here in this backwards L-shaped building. In this image the resolution is high enough where you can see two helipads, one where my cursor is and the second where this is. These are now roof-mounted helipads, so they are approximately seven stories above grade.

The bulk of the new patient tower and the podium that it sits on is this portion of the campus. This is a nine-story structure. And in front of that is a small portion of the building that is the front entry.

The parking -- second parking structure is off to the left. And two points that are hard to appreciate in this aerial image, there's about two million gallons of underground water retention underneath this surface parking lot. And then secondarily this --

we refer to it as the north green. We had pointed it out on the tour. This is a very large stormwater retention detention basin as is this basin right here.

So as part of the zoning requirements in addressing years of development on the campus, we committed to the neighborhood and tried to eliminate as much flooding as possible and improve the situation over the years with the development on the campus.

None of that had been addressed. And so literally during the monsoon season, many of the streets in the Jefferson Park neighborhood had significant short-term flooding episodes. It would evenly subside, but it had become a long-standing concern because all of the topology of this area conveys water from south to north to the Rillito River where it is collected.

So these became important measures to address the neighborhood concern and our responsibility to handle our own stormwater along with what else we receive from the south from the other portions of the university campus.

You will note also that there were a number of residences or houses. They weren't all private residences. Some were occupied by Banner and some by the university. A number of those were removed as part of this so that we could create this stormwater detention.

The -- you'll hear some additional feedback about these and some features.

But I want to point out, maybe while this image is showing, we also have -- recognizing we have two rooftop helipads and require elevators to get there, we always try to be mindful of contingency planning and what-if events because having elevated helipads requiring elevators to get there bring with it some risks. We have two side-by-side elevators that serve that. We have to take one out for service. But if we were ever in a situation where both were out of service, we would be out of the use of the helipad because taking a stretcher through a stairwell is a last resort that we would ever want to do.

So having learned from past experiences on other campuses and other disaster planning, we purposefully kept the landscape planting in this rentention basin very sparse so that should we ever have to in an emergency situation, we could use this surface area as a spot to land an aircraft.

BY MS. DE BLASI:

Q. Okay. And while we're still on this -- and the slide numbers didn't make it on to the slides that are on the iPads, but -- or that we're looking at now.

But this is slide number 9. Can you just show

what we were briefly discussing with -- I know we don't have an applicant's overview showing the 400-foot corridor that would be asked for through here, but given this overview can you just sort of give us a general idea of where it would go through this area and understanding that Lester Road is on the north end of that kind of cut off at the top of the photo.

A. Yes. Let me try to get the pointer to work.

So this approximately 400-width band that we've seen from TEP kind of skirts across the northern end of this parking lot, somewhat across a portion of this structure and find its way out towards Campbell sort of clipping this retention basin.

Q. Okay. And similar to the north of Lester it would run along --

A. Correct. North of Lester -- and Lester is just at the top of page. This is the sidewalk where my cursor is pointing just out off of Lester. So it is just outside of that. So above this image we would encompass the north end of that 400-foot path.

Q. Okay. Great.

And so you had started to talk about the Jefferson Park agreement. And so I think you have a slide talking through the contractual arrangement?

A. Yes. So there's -- it's part of our PAD

development and outreach to neighbors. Our involvement with the Jefferson Park Neighborhood Association was the greatest given they're our closest neighbor.

We're buffered a bit on the west side by some university buildings and some fraternities and some other sort of less sensitive uses, and then Campbell Avenue on the east side of our property. So we have gotten to know many of the neighbors in the Jefferson Park Neighborhood Association.

And that's not new to Banner. That has been a long-standing relationship. But recognizing that we were encroaching further upon them, we framed an agreement that is a recorded agreement that both parties have signed.

And within that agreement, it speaks to stormwater drainage and other improvements and the creation of what is named in that the North Green as a buffer between the neighborhood and our campus.

There's an expectation -- well, there's an allowance that we could use that North Green for some of the stormwater detention, but an expectation and desire to have some Park-like landscaping, some pedestrian and bicycle paths, some benches and tables and shade structures that we would maintain that North Green and that if possible in the future, we would extend that

North Green further to the west should any of the remaining residences that are private residences become available. And we have honored that.

So that was -- that we agreed to that. The term of the agreement is in perpetuity. However, there are provisions that either party upon mutual agreement can propose changes to it. But it has some teeth is my point.

We have -- we constructed it, and we have made those improvements, and we continue to maintain that. And so we pride ourselves, we felt like we showed the neighborhood that we can be a good neighbor.

It's also an amenity that is something that we wanted. We enjoy the landscaping. We know that coming to a large hospital campus can be confusing. Coming as a patient or a family member with a patient or to see a patient can understandably be an anxious point in time. And so we tried to make sure that getting -- finding your way to our parking lot, to your front doors is as easy as possible.

So we did not feel that adding these types of amenities at the entry was just for the benefit of the neighbors. We wanted it as well. And other campuses that we have developed have had similar features. It's just this one is serving kind of double conduit because

we're in a more dense urban environment encroaching upon residences.

Q. Can you describe a little bit more the community outreach process to reach that agreement?

A. Certainly. So we held a series of information sharing meetings and listening meetings, again, very similar to the process TEP used. We approached neighborhood associations and hosted some ourselves or attended some of their regularly scheduled neighborhood association meetings.

The City requirement for creation of PAD required, you know, one or two formally scheduled meetings where all would be invited, but we tried to exceed that and tailor discussions to each neighborhood. Because they were slightly different given the proximity to the campus.

In addition to this agreement with Jefferson Park Neighborhood Association, there was another agreement or document that Banner Health inherited. It's a memorandum of understanding between now Banner Health and the Jefferson Park Neighborhood Association regarding helicopter traffic.

We back in the '80s, early '90s, I'd have to look back at the original creation of it, but helicopter traffic was a point of concern. And when we elevated the

helipads to the roof of Diamond Children's, it added emphasis to the awareness of the helicopters, the noise of the helicopters. An evaluated helipad can be noisier and a bit more impactful to the neighbors.

And so we have a route that we ask the pilots to fly when possible. It's referred to as the fly friendly route. And that route is east and westbound along Speedway or further south and northbound once they hit Speedway above Campbell and then turning left into the campus.

And that route is intended to stay away from above homes. It's in close proximity because there's not a lot of space. But I can share with the Committee that we have continued to honor that MOU. We take it very seriously. We monitor all of the traffic on the helipad. And I'll share a bit more of that data in a bit.

And we strive to work with the pilots to get them to understand the fly friendly route and to follow it whenever possible. They have permission, and they must ensure the safety of the aircraft themselves and the patients to stray from that also due to weather. But whenever possible we ask them to adhere to that agreement as well.

Q. So would a large power line in this area impact the operations, the viewshed, the life flight operations

and other amenities at the medical campus?

A. It certainly would.

I'll share more images here in a bit about the viewshed. But that contingency plan for the ground-mounted landings or the ground landings would be directly impacted by routes along the Ring Road and along Campbell. The --

CHMN STAFFORD: Which routes are those?

MR. BARKENBUSH: D, 1, and 6, I believe, Chairman.

BY MS. DE BLASI:

Q. We're going to go into more detail specifically to each route shortly.

A. The height of the poles, as TEP has testified, will be certain -- and you'll see this in some of my upcoming images -- certainly in our viewshed but getting close to the height of our helipads. Our helipad is just above the height of the poles, but it's putting high voltage lines, you know, in close proximity to the flight path to and from the helipad.

I described, you know, the helipads themselves. I would also testify that this helipad is an active helipad. We have monitored the number of flights for many, many years, and on average right now for the past few years we have about 1200 flights per year.

A flight includes an arrival and a departure. So it's 1200 arrivals and another 1200 departures. So 2400 encounters, if you will, in close proximity to the power lines. So on average, you know, we're seeing three-ish or so flights per day.

We can go -- I've seen as many as 10 on a very, very busy day. And then sometimes we'll be lucky or in the neighbor's opinion lucky and not have any flights for a couple of days.

Q. So we drove past the medical campus on Ring Road on a couple of occasions during the tour last week.

Can you show us some of the features of the hospital and medical campus with the photographs?

A. Yes. I'm trying to make it advance. There it goes.

Q. There you go.

A. Make sure I didn't go too far.

So let me just back up and make sure I did -- okay.

This image is taken standing more or less on the Ring Road looking to the south, or if you recall in the buses, it would have been out the left-hand windows of the bus tour. So it's standing approximately where you would turn off the Ring Road into arrive at the emergency room if you were bringing a patient to the emergency

room. It's not where the ambulances drop off.

So looking at the building, the -- this upper portion is what I would refer to as the patient tower, and it's sitting upon a four-story what I refer to as a podium.

You'll notice a fair amount of glazing on this couple stories of glass here and then a couple stories of glass to the right. And then windows from the patient rooms on the patient tower here. Windows all along here. And then some -- in this portion of the building there's some staff areas as well. And I have some views out of those that I'll share with you in a minute.

But just to orient you to the building, the -- I mentioned we relocated all of the imaging and diagnostic and treatment functions into the tower, so that's on Level 2. And we have a very large waiting room on Level 2 for family members and friends for who have patients who are having imaging scans or having a cardiac cath procedure or some sort of diagnostic procedure.

Surgery -- our waiting room is on the third floor, and all of the surgical suites are behind that waiting area on the third floor.

We have a rooftop terrace sitting above this portion of the building that we host special events on when the weather is cooperating and cooler. And then we

have visitor lounges in this portion of the building at floors five through nine and then patient rooms in floors five through nine in this portion of the building.

As I advance, the image on the left is taken from one of the family waiting areas in the patient tower. These are rather small waiting areas because all of the rooms are private rooms, and family members are encouraged to stay with their family as much as possible and as much as they care to.

But we know that there are times where family members themselves need a break. They may have to have -- the patient may need to have a procedure that would be more comfortable for the patient if a family member or a sibling or someone were not there. And then we know there's also some difficult decisions that have to be made in the course of some of the care and having a family member in the hospital.

And so these lounges are rather private, and they're kind off the path. But as we were designing the building, we took advantage recognizing that there can be some life-altering discussions and decisions being made. We tried to make these rooms or these areas a bit of a quiet respite area as well.

And so they're appointed very nicely, but, as you can see in the image on the left, we positioned them

to enjoy the views of the Catalinas.

The image on the right is a café destination. I had referred to a large two-story glass area on the left-hand side on the exterior image. This is a location I liken it to grand central station because it's the terminus of all the north/south traffic occurring from the college of medicine and older portions of the building and then into the new tower.

So it's a decision point. It's a gathering point. There's casual meetings held there. Modest food service you can't see -- we don't have it open. This picture was taken just as we were stocking the café. But on the right is the small café so you can purchase a cup of coffee or some light snacks. And, again, taking advantage of the views to the north and to the northeast.

These two images, the first one on the left is from one of those waiting rooms. This looks to be the third story waiting room or the surgical waiting room. So it's standing behind the information desk looking out. You can see one visitor sitting there. So there's a variety of different seating arrangements to handle a variety of different sizes of groups and gatherings. But, again, situated to take advantage of the views to the north.

And then the image on the right-hand side of the

screen is a typical patient room in that portion of the tower. So the patient bed is situated with the headwall behind it and patient able to turn to their right if they were laying on their back to look out, a guest sofa or sleeper couch situated by the window and views there.

What you don't see in here is a patient recliner. There's a recliner in the room. And we encourage patients to be up and ambulating as much as possible. So it while it looks sort of like a side view, the patients do take advantage of the views to the north if they're in one of the north-facing rooms.

Q. Mr. Barkenbush, do you recall Mr. Bryner's testimony regarding KOP 29, which is on page 757 of TEP's application?

A. Yes. I do.

Q. Could we pull that up on the left-side screen?

Okay. So that would be the bottom photograph in this depiction?

A. That is correct.

It's the bottom photograph that has superimposed in it a pole that is situated, and it appears to have the power lines on both sides of that. On my particular screen it looks like there's a lot of birds on those power lines.

But it's clearly in the -- this picture was

taken from Mr. Bryner's testimony from the original parking structure. It's a four-level parking structure that is equivalent to a second story or the roof of a second story of a typical building. So this would be what one would see clearly out of those waiting rooms on the second or third floor.

CHMN STAFFORD: So that's the view from the waiting room?

MR. BARKENBUSH: It would be very consistent with that, Chairman.

BY MS. DE BLASI:

Q. If you want to go back to Slide 11 or the previous slide.

A. So in this image that pole would be situated approximately where my cursor is -- or pointing -- the laser is pointing.

CHMN STAFFORD: And that's on the second or third floor?

MR. BARKENBUSH: This one happens to be the third floor.

BY MS. DE BLASI:

Q. And do you recall that Mr. Bryner's testimony or it could have been Mr. Robinson's the pole is about 95 feet tall?

A. That is correct.

Q. The 136kV would be?
A. Yes.
Q. Okay. With respect to the photograph that's KOP No. 29, can you read what's on the bottom of photograph? Which routes do this depict?
A. Alternative routes 1, 6, or D.
Q. Okay. And so if you're in the building, as opposed to a homeowner who this line would be above their home and not in eyesight, would this line be directly at eye level for someone standing in the building?
A. It would be eye level for the majority of our floors in our patient tower.
Q. And would this interfere with the whole purpose of the amount of investment in your patient areas and your towers?
A. Yes. It would. And I might add in some of our past discussions with TEP in evaluating these routes, one of the beliefs that I have is the FAA would require the installation of some of the -- or I don't know the technical term. I don't recall right now. But the orange or red safety balls I'll call them. I'm pretty butchering that. But that would further call to anyone's attention as they're supposed to do in that type of setting the top of the line.
I believe there's also a potential that the FAA

might require those few poles structures to have an illuminated warning light at the top of the pole as well given the proximity to an active helipad, again, further drawing attention to those structures.

Q. Okay. And we'll get into more detail of each route and the impact shortly.

But so I think we had prepared next to start talking about the different routes and how they impact or not --

A. Yes.

Q. -- the campus.

So do you want to -- let's start with the applicant's preferred Route B.

So if we could have slide TEP route map Slide 56 on the right screen and our Slide 9 on the left screen.

Grace, do you mind? Whichever side is fine. But slide TEP route map Slide 56.

CHMN STAFFORD: And just to clarify, that was the KOP 29 that was the view similar to the view from the hospital that you're talking about?

MS. DE BLASI: Correct. That's directly out the front of the hospital.

CHMN STAFFORD: Okay.

MS. DE BLASI: Both the children's tower and the main hospital.

Okay. Wonderful.

BY MS. DE BLASI:

Q. So let's talk through the different routes.

MS. DE BLASI: And for the Committee, this -- some of this testimony's going to be repetitive, but we wanted to make sure that the impacts are the same -- you know, the impacts are stated for each route as we're discussing them. And, again, these are only the routes that are immediately near the campus.

BY MS. DE BLASI:

Q. So with respect to applicant's preferred route referenced as Route B, what is Banner's position on this route?

A. Banner supports the applicant's preferred route referred to as B.

Q. So let's talk through some of the reasons why. And some of them you've touched on already.

But referring to the two slides above, can you -- let's start with the life flight operations.

Can you talk about Route B with respect to how it avoids any of those issues with the -- with those flights?

A. It does. And so my pointer -- will my pointer work on the map or just my presentation?

I can use the laser. It's just the members --

Q. I think she's adjusting it.

MR. BARKENBUSH: Are you adjusting it?

A/V TEAM: You should be good if you hold it down.

MR. BARKENBUSH: Red or yellow one? Which one?

A/V TEAM: Red.

MR. BARKENBUSH: There it goes. Okay.

CHMN STAFFORD: And they can see that on the broadcast; right?

MR. BARKENBUSH: Yes. They can see this on the broadcast.

So the Vine Substation where we visited is here. And then all of our buildings are situated to the east of that substation. So as you can see on Route B, stay west of our development and out of the way of the helicopter flight path and that fly friendly route that I referenced along Campbell and turning left into the campus of that fly friendly route would come above Campbell and turn left into the helipads.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: We're talking about flights of helicopters at this point in time, so I'd like to have some specifics.

How tall is the helipad in feet? How far aboveground?

What's the actual height of the helipad?

MR. BARKENBUSH: Approximately 120 feet.

MEMBER GOLD: So the helipad is 120 feet.

What is the tallest power line in the area that they're presenting earlier?

MR. BARKENBUSH: I believe the testimony was between 75 and 85 feet.

MEMBER GOLD: So let's say 85 is the tallest in the area, and the height of your building is a hundred and --

MR. BARKENBUSH: The approximate elevation of the helipad would be 120 feet.

MEMBER GOLD: So 85, 95, 105, 115, roughly 35 feet below the height of your helipad; is that correct?

MR. BARKENBUSH: Correct.

MEMBER GOLD: Okay. So helicopters don't come up to your building, they would come down to your building?

MR. BARKENBUSH: That is correct.

MEMBER GOLD: So just assuming for a second that your primary interest is the visual appearance from your building, not the security based on the helicopter

flying in, because the helicopter flying in would not hit those poles. There's no reason for him to fly nap-of-the-earth.

MR. BARKENBUSH: That is correct.

MEMBER GOLD: So we're talking about the visual appearance from your window if I'm correct.

MR. BARKENBUSH: That is of primary concern.

MEMBER GOLD: Thank you. That's what I wanted to know.

MEMBER HILL: I actually have a follow-up --

CHMN STAFFORD: Member Hill.

MEMBER HILL: -- related to that.

CHMN STAFFORD: Member Hill.

MEMBER HILL: There is the potential and I'm kind of curious that this -- that a helicopter would need to land on the ground if you had an issue you have like a reserve helicopter spot on the ground.

So that having power lines around Ring Road or on Campbell, can you talk about the challenge with that if you had to use the reserved helicopter spot for setting a patient down?

MR. BARKENBUSH: It would create a significant conflict with trying to land an aircraft in

that detention basin that I had shared.

I have to admit it's an emergency contingency plan. It is not something that we would do for long periods of time, but the scenario exists, and we have a scenario planned through that.

MEMBER HILL: Can you -- have you ever had to land a helicopter there?

MR. BARKENBUSH: No.

MEMBER HILL: So it is a contingency plan?

MR. BARKENBUSH: That is correct.

MEMBER HILL: Worst-case scenario, maybe even power outage and the elevators didn't work?

But, okay, that's helpful. Thanks.

CHMN STAFFORD: And that reserve helipad is on the ground?

MR. BARKENBUSH: Yes, sir.

CHMN STAFFORD: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Where else could you put reserve helipads in that area?

MR. BARKENBUSH: We don't have any other choices that are practical. We have surface parking.

MEMBER GOLD: Yes. Exactly.

MR. BARKENBUSH: But to get if -- our

parking is very constrained on the campus and a challenge. And so in order to clear out a few hundred employee vehicles out of a surface lot or elsewhere on campus where we don't have control of the lots would take quite some time, so that aircraft would choose another facility to go to.

MEMBER GOLD: So we're assuming a worst-case scenario where a helicopter has crashed on the helipad, the helipad is not usable, and you have to use another location, and that has not happened to date?

MR. BARKENBUSH: It has not happened to date.

MEMBER GOLD: Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Could I ask if the existing 46kV line on Campbell Avenue causes a potential problem with that contingency landing area?

MR. BARKENBUSH: It does not. It is on the right-hand side of or the east side of Campbell Avenue, and I'm speaking from memory. It may have stopped at that point. I'd have to refresh my memory of street views.

MEMBER LITTLE: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Okay. I'm assuming this is a very, very miniscule likelihood of happening.

I've spent a thousand hours of helicopter, and we've landed in very awkward positions, sometimes landing where rotors are two feet from something that they can hit.

I would still say your primary focus is the visual impact to people who are either patients or visiting your hospital; is that not correct?

MR. BARKENBUSH: That's correct.

MEMBER GOLD: Thank you.

CHMN STAFFORD: Please continue.

BY MS. DE BLASI:

Q. Just a couple of things on that. I don't believe there is a 46kV on that route. Perhaps the applicant can confirm.

I don't believe there's a 46kV on Campbell?

MEMBER LITTLE: Yeah, there is.

CHMN STAFFORD: Yeah. We saw the power lines on Campbell Road. I don't know if they're that far north or not.

MS. DE BLASI: That far north.

CHMN STAFFORD: But I do recall seeing them on Campbell Road.

MS. DE BLASI: Yeah. I don't believe they're that far north.

BY MS. DE BLASI:

Q. But with respect to the helipads, was the testimony that the line behind the -- or going through that area would be 95 feet?

A. I recall 85 feet.

Q. Okay. 85 or 95 I'm sure can be adjusted, but it's tall?

A. Yes.

Q. Okay. Do hospitals plan for normal conditions or emergency conditions?

A. We strive to plan for emergency conditions given the types of services that we're providing, so we need to be certain that we can address the needs of the community.

Q. Okay. And you mentioned the elevators for the two existing helipads.

If for some reason the power was down, your generators went out, and you needed to land in that space but there was a power line there and you couldn't land there, where would they go?

A. My contention would be they would take the patient to another facility such as TMC or one of the other facilities in town.

Q. Okay. Which time might be of the essence in that emergency situation?

A. Time would be of the essence in an emergency situation, and they may not have the services that the patient needs.

Q. Understood.

And so whether you're landing from above, I'm sure there's FAA requirements for landing near power lines or below, does the hospital want to maximize its ability to deal with emergencies in the area?

A. Yes, we do.

Q. Okay. And let's say there's a situation as last evening where you have an emergency and it's very windy and so the helicopters need maximum capacity to be able to land and have different routes to be able to do that to maneuver those conditions.

Is that something that the hospital would consider important?

A. Yes, it is.

Q. Okay.

CHMN STAFFORD: I have a quick question. So the route we're talking about is Route D because that's the one that's north of the Vine Substation on Campbell; correct?

MR. BARKENBUSH: Correct.

CHMN STAFFORD: All right. And maybe I missed this. Can you show us where on the map is the reserve helipad and what is its distance from Campbell Avenue?

MR. BARKENBUSH: Bear with me. This -- my laser is a little smaller on this, but that reserve landing area is where the cursor is moving. Campbell Avenue is right here and the Ring Road is right here.

So the corridor width that TEP is asking for clips through a portion of this retention basin, a portion of the garage, and so potentially that power line could be in very close proximity to this detention basin.

CHMN STAFFORD: So where in that detention basin would the helicopter land exactly? Is it --

MR. BARKENBUSH: The center. It's flat in the center.

CHMN STAFFORD: Okay. I was going to say because it looked like it kind of sloped down from the sides.

MR. BARKENBUSH: It does slope down. It's about, as I recall, a 30-inch deep retention basin that's pulling surface water from this vicinity kind of along this portion of Ring Road and what comes off here.

So the majority of the water enters here and flattens out rather quickly. There were no

requirements for safety rails or anything like that. It's not that deep of a retention.

CHMN STAFFORD: Okay. So what's the distance? What's the span?

I mean, so if it's right in the middle, that's going to be how far from the road either both what's it Ring Road and Campbell Avenue?

MR. BARKENBUSH: I would estimate 50 feet from each of those.

CHMN STAFFORD: 50 feet. Okay.

And then so it serves as a stormwater retention area; correct?

MR. BARKENBUSH: Correct.

CHMN STAFFORD: So if there's a -- if the emergency we're facing that caused the power outage is a storm and that's full of water, you wouldn't be able to land a helicopter there anyway, would you?

MR. BARKENBUSH: Not in that situation we would not.

CHMN STAFFORD: Okay. All right.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Would Mr. Barken --

MR. BARKENBUSH: Barkenbush. That's okay.

CHMN STAFFORD: Mr. Barkenbush, is that --

MEMBER GOLD: Barkenbush.

CHMN STAFFORD: Yes.

MEMBER GOLD: Mr. Barkenbush. I'm sorry.

Mr. Barkenbush, would you point to the helipad on your map.

MR. BARKENBUSH: Yes.

The preferred one that they use the most is right where my cursor or the laser is.

MEMBER GOLD: So that is the preferred helipad about the size of the red dot that you're putting up on the screen; correct?

MR. BARKENBUSH: Yes. The other one --

MEMBER GOLD: You said there was another one?

MR. BARKENBUSH: The other one is at that same level closer. It's just closer to the new tower.

MEMBER GOLD: Okay.

MR. BARKENBUSH: And so it's used -- the winds are a little bit shifty in that area.

MEMBER GOLD: Understood.

But it's about the size of that red dot; correct?

MR. BARKENBUSH: Correct.

MEMBER GOLD: Would you put the red dot back on the storm detention area.

That's a lot bigger than any of your helipads.

MR. BARKENBUSH: Correct.

MEMBER GOLD: So he could land technically anywhere in that area the size of your red dot and be -- have plenty of room in an emergency to land.

However, the primary reason I'm asking this is if you have an emergency in your primary helipad, you have an alternative helipad?

MR. BARKENBUSH: Yes.

MEMBER GOLD: And if it's a storm that's keeping him from landing on the primary helipad, it would also keep him from landing on the secondary helipad assuming the winds are 70 or 80 miles an hour like last night.

And chances are, as the Chairman said, your water detention area would be flooded. He couldn't land there either.

In an emergency, is there a street or something else -- if you would put your pointer on that street to the north, not Campbell, but that -- a little lower -- no. Lower on the street.

CHMN STAFFORD: Ring Road.

MEMBER GOLD: Right on the Ring Road.

I mean, he could land on Ring Road if he

had to.

Are there any telephone poles or --

MR. BARKENBUSH: No. We --

MEMBER GOLD: -- power lines there?

MR. BARKENBUSH: As part of our development, we cleared out with TEP's assistance all of the local distribution. And so everything in this area currently is undergrounded until you get north of Lester.

MEMBER GOLD: Okay. So you could land there?

MR. BARKENBUSH: We could.

There are -- there is some landscaping in the area where there's some trees that are starting to get mature that could be risky.

MEMBER GOLD: But we could set something up where you have a tertiary landing area only because I'm concerned about Banner.

MR. BARKENBUSH: Correct.

MEMBER GOLD: You could have a tertiary alternate landing area that's not in a drainage basin.

MR. BARKENBUSH: Correct.

MEMBER GOLD: So a stormwater or flood you could still land even if both helipads were not available. I would recommend you designate something, you know, on a road.

You know, people don't realize the interstate highway systems in this country have many areas that are not blacktop. They are concrete. The purpose for the concrete is the interstate highways are an alternate landing field in case of emergencies for aircraft.

And I believe you would probably have something like that or at least you should have something like that for Banner in case of, you know, unquote, quote a worst-case scenario.

MR. BARKENBUSH: I -- I would agree with you. My only concern would be it further exacerbates the challenge of routes D, 1, and 6.

MEMBER GOLD: Let's put it this way: My feeling -- my gut feeling is that you don't want the route on Campbell Avenue because it will put a power line right in front of your patients' views, and that makes sense to me.

The helipad, you know, using that stormwater drainage area really doesn't. But I would recommend that since we're bringing the subject up and you are the facilities manager for Banner that you recommend they plan on something on one of those roads, a designated area and mark it --

MR. BARKENBUSH: Yes, sir.

MEMBER GOLD: -- where a helicopter could land in an emergency. That would make much more sense.

And just between you and I, I would recommend you do something like that.

MR. BARKENBUSH: We can evaluate that.

CHMN STAFFORD: I have another question.

So we've talked about the planned area development.

Is that the same as the University Area Plan, or are those two different things?

MR. BARKENBUSH: They are two different things.

This is a specific document. I've lost track how many the City has. I think it's in the low 30s, but it's unique for a specific landowner and developer to have these where the zoning ordinance doesn't suit the type of development that a developer is bringing forth.

CHMN STAFFORD: And that's the PAD you're talking about?

MR. BARKENBUSH: Yes.

CHMN STAFFORD: And what is the University Area Plan?

MR. BARKENBUSH: I'm not a subject matter expert on this myself. And I think the City's witness

will speak to that.

But my understanding is it's a comprehensive plan that lays out some development guidelines for the broader university area.

What I would share with the Committee as part of my testimony is I've reviewed that university plan. And knowing our PAD -- it's in the City of Tucson records. It's PAD No. 28. The requirements we put upon ourselves as part of our future development are very consistent with the university -- the principles in the University Area Plan.

CHMN STAFFORD: Okay. So the PAD plan, that was approved by the city council. And then the University Area Plan was something that the --

MR. BARKENBUSH: I don't have specific knowledge of --

CHMN STAFFORD: All right.

MR. BARKENBUSH: -- which body --

CHMN STAFFORD: Okay. Well, I'll get to that when we -- when the City puts on its case, then, so -- I just thought maybe since you might know and you were on the stand and I thought I'd ask you.

MR. BARKENBUSH: Thank you. Yeah.

CHMN STAFFORD: All right. Please proceed.

//

BY MS. DE BLASI:

Q. Just a quick question.

Might there be a storm that's windy without rain?

A. There certainly could be.

Q. Okay. And would Banner want to be forced to alter any of its helicopter life flight operations as you said as you pointed out previously the number of emergencies you had, when there's a perfectly good route that could be chosen, multiple actually here?

Is that what we're looking at?

A. We would prefer not to.

Q. Right. I think your patients might also prefer not to, but -- okay.

Let me get back to your -- I believe you said -- would you say that your -- the safety of your helicopter operations are as important as your viewshed concerns?

A. I would say that the safety of the flight operations are of more importance.

Q. Okay. I just wanted to make sure that's understood.

And that -- and that whether it's 85 feet or 95 feet, you know, power line, do you recall the testimony of TEP that -- well, we'll get to that slide in the double circuit area. But whether it's along that

line and Campbell, might that then restrict your ability to access the medical campus from both of those sites?

A. Yes. It would.

Q. All right. Let's move on to some of the other impacts.

What about noise sensitive equipment, that sort of thing, from a large power line, if the applicant, you know, was able to site it within that close proximity to the hospital, has that been tested with the hospital?

A. It hasn't been tested in a hospital in my experience. I've supported and maintained many hospitals throughout my career, and I don't have one that I could recall that was in close proximity such as this to a transmission line of this voltage.

Q. Okay. But it could present an issue to some of your very sensitive equipment that you have?

A. I certainly believe it could and is a point of concern that we have.

Q. Is that something that you would want to have to test after the line was sited or approved?

A. No. Testing it after or experiencing it afterward would be a significant challenge and potentially interrupt our operations while we mitigate that situation that's found.

Q. Okay. And then let's again talk about the North

Green area.

Potentially within that corridor if approved they could really site it right down the middle of it, could that not?

A. That's what our understanding is.

Q. Okay. On the right screen, we have applicant Slide 56. Does Route B go near that Gateway Corridor that's an issue in the case?

A. It does not go near Campbell Avenue. It only crosses Oracle Road.

Q. Okay. And is that a significant issue of controversy in this case?

A. The Gateway Corridor certainly is.

Q. Okay. We heard pretty substantial testimony from Mr. Jocham about construction delays, noise, and that sort of thing.

How would that impact whether the line and especially I guess if the line was undergrounded, how would that impact the operations, access, patient experience, and otherwise to the operations of the hospitals?

A. If it were undergrounded along the Ring Road or in the Ring Road, it would create very significant impact to accessing the hospital. We -- our primary point of entry for visitors as well as Staff, candidly, is off of

Campbell Avenue on to the Ring Road and into the campus. So there's an opportunity to Park in this parking structure. There's two points of entry into it off of the Ring Road.

There is a surface parking lot for the emergency room. Again, this is patients coming to the emergency room not via an ambulance.

The main surface parking lot for the hospital and entry into the hospital is situated where my cursor is. And then this parking structure to the west side is largely used by staff. We have begun stacking some visitor cars in this garage with a valet service.

So all of our access -- I'm sorry, the majority of your access to the campus is off of the Ring Road.

This surface parking lot south of the tower where we have underground stormwater detention is used by Banner employees. Most still access that coming around the Ring Road and into it. However, there are pathways to that surface lot from the streets in and amongst where our buses traveled as we were coming to and from the proposed Vine Substation area. I would not want to try to detour our visitors through those small streets. It would be a wayfinding nightmare.

So with the construction that Mr. Jocham described, the widths of the trenching and the equipment,

I contend could barely be accommodated along this portion of the Ring Road that's -- sorry -- a little bit wider, but as it narrows down here at this curve, it would completely shut down the Ring Road if we tried to place it in there.

I also happen to know of an underground conflict. There's a four-foot-diameter stormwater pipe that travels north. So in some of the testimony that they offered, that would create a deeper -- we're not moving that stormwater line, gravity needs to work. So it would need to traverse under that.

CHMN STAFFORD: What -- what -- excuse me. What route goes along Ring Road?

I don't recall any route actually using Ring Road. I remember -- it's Grant to --

MR. BARKENBUSH: It's D.

CHMN STAFFORD: -- Campbell; right?

MS. DE BLASI: Applicants are asking for potential to site on Ring Road for routes D, 1, and 6.

CHMN STAFFORD: D. But I'm looking at D, and it doesn't have it on Ring Road. It has it going down Grant to Kino.

MS. DE BLASI: I think -- correct me if I'm wrong, but I think that's the corridor that -- the 400-foot corridor that's being asked for is that.

MS. GRABEL: That's correct.

CHMN STAFFORD: It doesn't -- it's not on Grant. It goes to Ring Road?

MR. BARKENBUSH: It comes down Grant to Campbell, down Campbell and in to the campus.

CHMN STAFFORD: Oh, I see. It's coming from the west.

MR. BARKENBUSH: The east.

CHMN STAFFORD: From the east to the -- going west --

MR. BARKENBUSH: West.

CHMN STAFFORD: -- to the place -- okay. That's where it is. Because I'm looking -- okay. That makes sense. I got it now. Thanks.

MEMBER HILL: Mr. Chair.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Hill.

MEMBER GOLD: Gold.

CHMN STAFFORD: No. She went first actually. She sounded the buzzer just before you did.

MEMBER HILL: What is -- no. I have to do it in the form of a question.

Mr. Barkenbush, can you -- you might have ponied this out, but can you remind me where the ambulances come in?

MR. BARKENBUSH: Yes. I have --

MEMBER HILL: Do they use Ring Road and kind of where do they normally come in?

MR. BARKENBUSH: If they used Ring Road here -- we have only done that when there's been construction south of the campus.

So the ambulances come in via Cherry and from the south and traverse in, and the drop-off is right where my cursor -- or the laser is pointing.

So they come in I'll refer to it as the backside. It's where our loading dock -- it's in the vicinity of our loading dock and elsewhere. And so they're -- all of the EMS services and the ambulance services understand the route. It's a targeted audience that we could educate.

And it's not -- it's purposefully not signed so that we don't get visitors confused or the public confused trying to find their way to emergency that way.

MEMBER HILL: Great. Thank you. That's helpful.

MR. BARKENBUSH: You're welcome.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Okay. I don't know who to

address this question to. I think it may be Ms. De Blasi.

I'm having trouble because there's something that is glaringly missing from those pictures. Why don't we have Banner hospital on your slide showing us where it is in relation to the routes?

MS. DE BLASI: That's not our slide. That's applicant's slide.

MEMBER GOLD: Well, where's your slide that shows Banner Hospital and the routes? That's what I would like to see. I want the see how these routes impact your hospital. And every time I look at that I'm trying to remember where's Banner. I mean, here I see it. This is clear.

MS. DE BLASI: We have it on applicant Slide 236 if you want to bring that up.

MEMBER GOLD: Can we put that up there instead of this?

MS. DE BLASI: This is just showing the preferred route, but that might help.

MEMBER GOLD: Where's Banner on --

MS. DE BLASI: It's I belive applicant Slide 236. One more.

CHMN STAFFORD: Yeah. Look at the constraints slide. It's the big red oval, isn't it?

MS. DE BLASI: Yes.

MR. BARKENBUSH: Yes, it is.

CHMN STAFFORD: I think keep going.

MS. DE BLASI: It's the next slide.

MEMBER RICHINS: Chairman, really the easiest way is to remember it's right next door to the Vine Substation.

MS. DE BLASI: RIGHT.

MEMBER RICHINS: And if you can find Vine, you can find the hospital.

MS. DE BLASI: Correct.

CHMN STAFFORD: Oops, it jumped to Slide 111.

MEMBER GOLD: Well, that's what I've been seeing.

MR. LUSK: Mr. Chairman, this is Roi Lusk from the City of Tucson. If I can assist.

In the bottom right corner there's a number, and that number should be 236.

There it is.

MEMBER GOLD: There we go.

CHMN STAFFORD: Okay. Yeah. It's the smaller oval --

MR. BARKENBUSH: Correct.

CHMN STAFFORD: -- is the medical center.

And then the larger oval is the campus; correct?

MR. BARKENBUSH: Correct.

MS. DE BLASI: Correct.

CHMN STAFFORD: There you go, Member Gold.

MEMBER GOLD: Okay. Now I see where the hospital is. And we were there. And I know what the area looks like.

Now, where is Campbell Avenue?

Is that that brown line --

CHMN STAFFORD: That's the red line to the right.

See the word "Vine," the red line going north/south? That's Campbell Avenue.

MEMBER GOLD: Okay.

CHMN STAFFORD: It's red because it's a Gateway Corridor Zone.

MEMBER GOLD: All right. And the route that -- the preferred route, where is that on this map or --

MS. DE BLASI: It's a different map. But that's back up to line -- TEP Slide 56. We were trying to use applicant's maps so we weren't creating a bunch of new ones.

MEMBER GOLD: No, it's right --

MS. DE BLASI: So on this slide, Chairman

or Member Gold, the campus is right next to the Vine Substation and the yellow triangle.

MEMBER GOLD: Okay. I would ask, Mr. Chairman. It would make it -- you know, I know what the ground looks like. I've been there.

But I would like the see the routes with the hospital on it since we're saying this is going to be -- these routes have an effect on the workings of the hospital and the patients of the hospital and a lot of other stuff.

Is it possible that we could annotate even the placemat here, just with a magic marker put the hospital on it so we could see it?

I see Campbell. I see the Vine Substation. I see the Route D -- it's either D or 1 goes from east to west to the Vine Station.

Is the hospital right where that route is?

Is the hospital right above it?

CHMN STAFFORD: Mr. Bryner to the rescue. He has a marker to --

MS. DE BLASI: A Sharpie --

CHMN STAFFORD: -- a Sharpie to put the hospital on that placemat.

MEMBER GOLD: Thank you.

MR. BRYNER: Anybody else?

CHMN STAFFORD: Thank you, Mr. Bryner.

MEMBER GOLD: Okay. So thanking Mr. Bryner, Ms. De Blasi, he saved me a little because I have trouble looking at this.

So from what I'm seeing the location of the hospital, the Vine Substation, the people looking out the window to the north will see that transmission line if they use this green route on the table map, which is D-1 I believe.

CHMN STAFFORD: Or just D.

MEMBER GOLD: D.

CHMN STAFFORD: This section is only D because this is the -- the letters are from the DeMoss Petrie to the Vine.

MEMBER GOLD: Okay.

CHMN STAFFORD: And then the numbers are all from Vine to Kino.

MEMBER GOLD: All right. But the Kino to Vine also has a green line going there also.

CHMN STAFFORD: Right. But it's a numbered line, not a lettered line.

MEMBER GOLD: That's a 1.

CHMN STAFFORD: Right.

MEMBER GOLD: Okay. I got that.

So as I'm looking here. People, patients,

doctors, visitors looking from your building to the north will see a transmission line, but they won't see one looking to the south, looking to the west, but they will also see number 1 looking to the east. So they will see a transmission line.

If you look at the preferred route, and I think that's --

CHMN STAFFORD: It's on the screen on the right.

MEMBER GOLD: -- B.

CHMN STAFFORD: B, yeah.

MEMBER GOLD: Yeah, but I don't see the hospital on.

CHMN STAFFORD: It's -- well, it's -- do you see where it says "Vine" and then "Ring Road"?

MEMBER GOLD: Yeah. Right under Ring Road is the hospital.

CHMN STAFFORD: Yeah.

MEMBER GOLD: So right there.

CHMN STAFFORD: So right by that yellow triangle and then to below that Ring Road that's all where the -- that's what this picture to the left is.

MEMBER GOLD: Wait a second. Somebody is signaling for help. That's --

MEMBER LITTLE: One at a time.

THE COURT REPORTER: One at a time, please. Thank you.

MEMBER GOLD: Please.

CHMN STAFFORD: All right. So what I'm saying again -- so where he's pointing with that green cursor, that's where the hospital is.

The road across the top that curves, that's Ring Road. It's -- you can slightly -- you can't see the curve as much on the right-hand map because it's smaller scale.

But that's right to -- to the right of that yellow triangle and below that Ring Road that's where -- that's where this picture is. That's where the hospital is.

MEMBER GOLD: Gotcha. So one at a time. Me.

Now, when you look to the north with this route, you do not see a transmission line to the north, but you do see it to the west.

So you're still staring at a transmission line even on this route.

CHMN STAFFORD: Yes. But I think the difference is that the way the building is constructed they look -- the big windows face to the north and to the east and not so much to the west because it overlooks

houses and not the mountains.

Is that -- is that correct, Mr. -- your name again?

MEMBER GOLD: Wait.

MR. BARKENBUSH: Barkenbush.

MEMBER GOLD: Barkenbush.

MR. BARKENBUSH: Very good.

That is -- that is correct.

There are some rooms on the other leg of the tower that do have views to the west.

Those rooms happen to all be intensive care rooms, and the patients are not as ambulatory and not moving as much. They still have to have a window by code, but there are a portion of the rooms that do look out to the west.

MEMBER GOLD: Okay. So we're still looking at power lines whichever route we choose, and power lines are lower than the height of the helicopter pads.

I mean, I'm just trying to say the aesthetics -- well, let me ask your opinion.

In your opinion, Mr. Barkenbush, aesthetically, are we better off having power lines to the north or power lines to the west?

MR. BARKENBUSH: To the west.

MEMBER GOLD: Gotcha. Thank you.

CHMN STAFFORD: Ms. De Blasi.

BY MS. DE BLASI:

Q. So just on that point real quick. And then I want to get back to the construction question.

But did Banner spend hundreds of millions of dollars on a building with the viewshed of the Catalinas and such to the north or to the west?

A. To the north.

Q. So with respect to the construction, do you recall the testimony of Mr. Jocham that construction may occur at night when it's cooler and might there be loud noises and such impacting patients trying to sleep?

A. Yes. I recall that testimony.

Q. Okay. And might that impact the patient experience in the hospital trying to heal with loud construction outside?

A. Yes. It would.

Q. Okay. And also do you recall the testimony of Mr. Jocham that they may have to shut down an entire lane to be able to put in the proper trenching?

A. Yes. I do.

Q. Might that shut down Ring Road entirely?

A. Yes.

Q. Okay.

CHMN STAFFORD: All right. Well, I'm

getting signal that it's time for a break. We've been going almost 90 minutes, so our court reporter needs to rest her hands. So we will take approximately a 15-minute recess starting now. We are in recess.

(Recess from 3:39 p.m. to 3:56 p.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. De Blasi, before you start I believe Member Richins had a question.

MEMBER RICHINS: Yes, thank you. You just testified about construction impacts to patients. And I was curious how you mitigated construction impacts for patients during the construction of your towers and parking garages on the campus.

MR. BARKENBUSH: Sure. So in trying to get the pointer to work again.

During the construction of the new tower -- there we go. It's moving -- bear with me. Thank you, support group.

MEMBER RICHINS: That thing is kicking your butt. You are losing the battle with that thing.

MR. BARKENBUSH: I am definitely losing the battle. It worked for a moment. With the construction of the new tower here, we at that point in time, the previous entrance to the hospital was off of Campbell

Avenue down to the south -- I apologize. The pointer is not pointing to it again.

But where the callout box, where it says "Original Hospital," so right wherever the cursor was moving there, that's where the entrance was located until we opened the new tower. So we had the opportunity to get to this parking structure.

Use this one -- we had the -- I'm sorry for the members on the -- calling in.

We had the opportunity to get to this parking structure on this portion of the Ring Road while we widened this.

We had no public coming here where we have today. The -- I take that back. There was some public coming to the emergency entrance here that we did have to work around and then we were able to detour staff to this parking structure from the surface streets to the west of the campus.

But our primary point of entry was off of Campbell on to here, so it avoided the majority of this while we constructed it.

We did have to work through some phases through that, but we weren't -- we were able to develop and widen the Ring Road in phases and maintain some flow. There was a portion of time that it was closed.

So we had to rely upon exclusively coming in and out of Campbell here and directing staff around, but it was not the extent of the construction that we've heard testified where we would have the depths of trenches, the multiple trucks on this Ring Road now given the amount of volume that we're putting on it today.

MEMBER RICHINS: So are you confident in TEP's ability to provide sufficient mitigation or not for egress and patient comfort in your towers during construction?

MR. BARKENBUSH: I have concerns. I've been delivering construction for 37 years and this task in front of them to try to underground on these roads is very difficult. I would not look forward to trying to manage this type of work and maintain access to our front door off of our Ring Road.

MEMBER RICHINS: So when you say these roads, do you specifically mean Campbell, the Campbell ingress/egress?

MR. BARKENBUSH: The Campbell ingress/egress -- now I'm dancing. I'm sorry.

MEMBER RICHINS: That thing is whupin' you.

MR. BARKENBUSH: Kicking my butt. Bear with me.

MEMBER RICHINS: We need some remedial

training here. Just teasing, Mr. Barkenbush.

MR. BARKENBUSH: Thank you. Access on and off of Campbell would be challenging, but largely the construction if it were to occur in the Ring Road is very concerning to me on how we would maintain operations.

CHMN STAFFORD: Are you talking about underground construction or aboveground construction or both?

MR. BARKENBUSH: Specifically certainly undergrounding construction. The preferred route that we support does not impact the Ring Road. If this were overhead along the Ring Road, as we've heard testified, and I agree with the testimony, placing a pole foundation is of less impact than digging a very significant trench and putting in a duct bank.

CHMN STAFFORD: Thank you. Member Richins, you still had additional questions?

MEMBER RICHINS: No, I think that's sufficient. Thank you.

CHMN STAFFORD: All right. Any other questions, Members, before I hand it back to Ms. De Blasi?

MEMBER HILL: I have a couple of questions.

MEMBER KRYDER: Mr. Chairman, may I interrupt?

CHMN STAFFORD: One second. Member Hill asked first so I'll let her question and then you can go after that, Member Kryder.

MEMBER KRYDER: Thank you.

CHMN STAFFORD: Member Hill.

MEMBER HILL: So I really appreciate all the work that Banner's demonstrated with the neighborhood with the north -- the Jefferson Park neighborhood. You've tried to create a good buffer when you didn't have a lot to work with because the university controlled the site and didn't have to follow land use regulations that are local.

You've worked really hard to ensure that helicopter traffic isn't flying over the neighborhood homes and things like that.

And I do think that one of our jobs with this Committee is to try to reduce the impacts of new transmission and infrastructure on neighborhoods.

So I think that there are a couple of corridors that have been identified by TEP. Some have more neighborhood impacts than others. And I do continue to kind of look at that Campbell alignment and recognize that sending this infrastructure through commercial areas would definitely reduce the impacts on neighborhoods.

Can you talk a little bit about -- you've

talked about how your preference is for aboveground because it reduces the amount of construction and the time of construction versus underground.

But if we are looking at the route along Campbell, would you prefer it underground for transportation reasons, or the helicopter reasons? Or do you have a strong feeling about that?

MR. BARKENBUSH: Along Campbell, I would prefer it be underground to minimize the impact with flight operations.

MEMBER HILL: That's helpful. Thank you.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Thank you very much.

In looking through all of this, and I really appreciate the siting of your main tower there where we got to look out at the Catalinas and then suddenly in that one that I was trying to look at what -- which key observation point this was, but the one that showed the one pole kind of right directly in the vision looking north toward the Catalinas. Could that be brought up again?

MS. DE BLASI: It's KOP 29 on slide --

MEMBER KRYDER: I think this is the one we have here.

MS. DE BLASI: Correct.

MEMBER KRYDER: I'm not sure who to address this to, but I don't -- this pole stands right in the middle of your magnificent view of Catalinas. Could it be moved, say, to the right on that screen toward Campbell Avenue and another pole be put to the left kind of off the edge of the screen and leave the view open, so what we would see would be wires rather than one or in that case two poles?

This probably is a question to TEP, but I'm not sure who should be answering it.

CHMN STAFFORD: Well there's only one witness on the stand, that's Mr. Barkenbush, so if you have questions for TEP we'll have to ask them at a different time.

I think that we may have to -- when the Committee begins to deliberate and kind of discuss things, I think we're probably going to have a primary narrow discussion before we actually begin deliberations, is that we'll probably have to recall some of the company's witnesses to answer some of these questions about technical feasibility and placement of poles and things like that, because that's who more prepared to answer as opposed to Mr. Barkenbush, because I don't think he's prepared to answer that question.

MEMBER KRYDER: Thank you, Mr. Chairman. I

appreciate that.

CHMN STAFFORD: Unless you want to take a stab at it, Mr. Barkenbush.

MS. DE BLASI: Chairman, I think I could help with asking some pointed question as to whether or not that would even matter.

CHMN STAFFORD: Please proceed.

BY MS. DE BLASI:

Q. Okay. So looking at this KOP 29 which is a rendering of the 136kV or 138kV looking at the Catalinas.

Mr. Barkenbush, would it matter where the pole was in relation to that side of the campus? Wouldn't at some point someone be looking directly at a pole and at power lines, and as you testified probably flight indicator blinking red lights and red, you know, balls on the line?

A. Yes.

Q. Would it matter?

A. I don't believe it would matter. It would be visible largely from any view looking to the north.

Q. Okay. And is that the case whether it's on Ring Road or Lester Road?

A. I believe it's essentially the same. We're talking about a modest difference between north and south distances whether it's on the Ring Road or whether it's

closer to Lester.

MEMBER RICHINS: Chairman, just to reconfirm this particular view of key observation point 29, the lower, both images were taken from the top of the Banner parking garage; is that correct?

CHMN STAFFORD: I believe so.

MR. BARKENBUSH: That is correct.

MS. DE BLASI: From the fourth story of one of the parking garages; correct, I believe.

MEMBER RICHINS: So not from the patient tower but from the garage.

MR. BARKENBUSH: It was taken from the parking structure because they had easier access to get to that top deck.

MEMBER RICHINS: Perfect. Thank you.

MS. DE BLASI: Are we good?

BY MS. DE BLASI:

Q. I just want to get finished with B and get on to the other three routes that we're going to be discussing.

So just in case someone's questioning the hospital, the importance of these helicopters to the hospital, when someone's in a helicopter getting to the airport as opposed to an ambulance, is that because they can take their time getting there? Or is there a reason

that a helicopter is used to get a patient to the hospital?

A. It's used when time is of the essence and clinically necessary.

Q. Okay. So might seconds count when you're trying to navigate -- a pilot's trying to navigate to the helipad, whichever one they might be using?

A. Yes, it would.

Q. Okay. And might that be why they deviate from the agreed-upon general route that you try to reach, but it's to the pilot's discretion?

A. Yes, it is.

Q. Okay. Might that be important to having unfettered access to the hospital from any direction where it might be coming up Campbell or across on Ring?

A. It's important to us.

Q. And is it important to those patients?

A. Absolutely.

Q. Okay. Just closing out this discussion on Ring Road and alternative B. If we could get TEP Slide 56 back up on the right.

Okay. What are indicated on that -- the black dots on the line, is that the current 46kV line according to the route map?

A. The black dots are --

Q. Distribution?
A. -- overhead distribution to be undergrounded.
Q. Right. Right. So is that another reason that Banner supports it, because that would clean up those areas?
A. Yes, it is.
Q. Okay. So moving on to Route 4, if we could have TEP route map Slide 75 on the right screen.
And, again, Mr. Barkenbush, could you please orient the Committee to where the hospital is in relation to that line?
A. Certainly. The hospital is situated immediately to the right of the yellow triangle depicting the Vine Substation.
Q. Okay. And this is applicant's preferred Route 4 going south; correct?
A. Correct.
Q. Okay. And what is Banner's position on Applicant's preferred Route 4?
A. Banner supports TEP's preferred route number 4.
Q. Okay. And with respect to the other routes going south out of Vine, which would be routes 2, 3, or 5, does Banner have a position on those routes?
A. We do not.
Q. Okay. Now, let's talk about the reasons why

Banner supports preferred Route 4 near the medical campus.

Would this route impact the flight operations that we've been discussing at length?

A. It does not.

Q. And does it impact the viewshed along to the north that you've indicated are very important to the operations and patients in the hospital?

A. It does not.

Q. Okay. What about sensitive equipment and noise along that area?

A. It's further away and thus does not impact that.

Q. Okay. What about the North Green buffer?

A. It has no impact on the North Green.

Q. Okay. Is that route following parallel along any Gateway Corridor?

A. Not parallel to any Gateway Corridor.

Q. Okay. And does it avoid construction-related delays to the hospital? I mean, would any of that construction cause a significant impact to your operations?

A. No, it would not.

Q. Okay. And does it also allow for retirement of overhead distribution?

A. Yes, it does.

Q. Okay. So moving along to the other routes near the medical campus, and these would be as we've indicated Route D, 1, and 6, if we could talk about -- if we could pull back up that constraint map, Slide 236 on the right side.

Are you familiar with this slide, Mr. Barkenbush?

A. Yes, I am.

Q. And is it labeled "Opportunities" or "Constraints"?

A. Constraints.

Q. Okay. And that typically means what?

A. It would be impactful or difficult for entities in the vicinity of that to stay in operation.

Q. Okay. And on the left screen could we put up TEP Slide 90, please? Okay. Can you just orient the Committee to the location again of the hospital and the medical campus and also the Route D.

A. So on the left-hand screen, the hospital and medical campus is located again immediately left of the yellow triangle and below the word "Ring Road."

Q. To the right?

A. To the right.

Q. Okay. And then the alternative Route D goes in which direction? You call out the direction?

A. It comes from the north down Campbell Avenue and then turns into I'll say our campus or to the west at the northern end of our development.

Q. Okay. On which road is it showing here?

A. It shows the Ring Road.

Q. Okay. And, again, you recall the testimony of the TEP witness that the line was somewhere 85 to 95 feet above on that road?

A. Yes, I do.

Q. Okay. And what is your position on Route D?

A. We oppose Route D.

Q. Okay. And so as we've been discussing, would Route D impact or cause a constraint on the direction of the helicopter emergency operations at the medical campus?

A. Yes, it would.

Q. Can we bring back on the right side our Slide 11, please -- or 9. Sorry, 9.

CHMN STAFFORD: From Banner Medical's Exhibit 2?

MS. DE BLASI: Yes.

BY MS. DE BLASI:

Q. So can you orient us on the Banner's slide on the right as to where that Route D would impact again what -- given the 400-foot corridor that the applicant is

looking for?

A. I'm trying to.

CHMN STAFFORD: This slide is numbered 9.

MS. DE BLASI: Yes.

CHMN STAFFORD: Is it 11 on the --

MS. DE BLASI: It's 9. I'm sorry. I corrected it. It's 9.

MR. BARKENBUSH: So Route D would enter the campus somewhere in this vicinity, and has impact on potential access to our helipads situated here and here, and contingency landing spot either in this retention basin or perhaps upon the roadway as discussed earlier.

BY MS. DE BLASI:

Q. Okay. And what about the same issue with the KOP 29, would that route still be on that same --

A. It would be identical to KOP 29.

Q. Okay. And would it impact the viewshed out of the multiple buildings at eye level there?

A. Yes, it would.

Q. Okay. And what about noise for construction and operations of the hospital as we've talked about?

A. All of those same concerns --

Q. Okay.

A. -- apply to Route D.

Q. And what about the sensitive equipment issue

with the proximity of a very large power line there?

A. It has that same potential impact.

Q. Okay. Could we bring up, please, bring up TEP Slide 95 on the right side? The left side is fine.

Could you -- are you able to read the last bullet? Can you see that? We might have to switch it to the right side?

A. If it's not a problem to switch it to the right side, it'll be easier.

Q. If we can swap those.

A. Thank you.

Q. That's fine, too. Could you read the last bullet?

A. The last bullet reads, "Possible route share occurs if Route D and 6 are selected from Stone to Campbell on Grant, from Grant to Lester on Campbell, and from Campbell to Ring on Lester."

Q. So of all the impacts we've talked about on a single line coming through there, would a double line just be more impactful to that viewshed and all the other impacts?

A. Yes. It would.

Q. Okay. And this would be at eye level; correct?

A. Yes.

Q. Okay. And then what about the impact on the

North Green in terms of the utilization and uniqueness that you've spoken about?

A. Those are the same impact as well.

Q. Okay. And same -- would that be the same whether single or double with respect to the sensitivity of your equipment?

A. The sensitivity of the equipment could be exasperated by a double line given it's more EMF fields emitting signal.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: When you're mentioning sensitive equipment and effect on it, what is affecting -- what equipment are we talking about and what effect are we talking about?

BY MS. DE BLASI:

Q. Can you talk about some of the specialized equipment that's within the hospital?

A. Certainly. So on the second floor, we have sensitive imaging equipment, a number of MRIs, a number of CT scanners, a number of PET scanners. It's a type of nuclear scanning.

We have cardiac cath labs with detectors that pick up the signal from an X-ray tube as patients' vessels are being imaged, and if it's a diagnostic

procedure then they're taking actions.

In the operating room, the third floor, we have a number of imaging systems within the operating room. We refer to them as hybrid rooms. So it's a combination surgery and imaging occurring at the same time.

So those are the what I would characterize as the most sensitive pieces of equipment that we have that have specifications around different EMF fields and the MRIs themselves have -- they're sensitive to moving metal objects so we don't position them near roadways and above loading docks and that sort of stuff.

Q. Okay. So electromagnetic frequencies which might be emitted from that equipment could be -- could be impacted; is that correct?

A. It could be, as I had testified I have not seen a facility this close to transmission lines of this size. And so it is of concern to me.

Q. And --

MEMBER GOLD: I'm sorry. Would be concern to me, too, but my question is what is the distance from the transmission lines and what is the strength of the electromagnetic fields when you go to the distance of your hospital?

What is the -- how strong is it? I think it's measured in gauss I believe is the terminology, but

I'm not certain. But I do know that the further you go from the transmission lines, the less the field effect.

In your experience, or perhaps this is something we may later have to ask the people from TEP if this electromagnetic field is affecting your equipment, then you can't have those power lines there. But if it doesn't affect your equipment, then it shouldn't affect.

MR. BARKENBUSH: That is correct. It's just for me it is an unknown because I've not had a facility that is in this close of proximity to that voltage of line.

MEMBER GOLD: So address Mr. Chairman. Will we have an opportunity later to ask this same question to people from TEP? Because this is a serious question.

CHMN STAFFORD: I think we're going to have to recall some of TEP's witnesses.

MEMBER GOLD: Thank you, Mr. Chairman.

CHMN STAFFORD: Not today, but later this week after the rest of the parties have a chance to make their direct case.

MEMBER GOLD: Okay. Thank you, Mr. Barkenbush. Thank you, Ms. De Blasi.

BY MS. DE BLASI:

Q. And I believe your testimony, Mr. Barkenbush, is

not that it would or would not. It's that you don't know and given the siting of -- the close proximity of siting wouldn't be something you would want to test, and I don't know that TEP has tested it either next to -- this close to your hospital that it might impact it. That wouldn't be something you'd want to know in realtime as it's being sited, as it's been built?

A. Correct.

Q. Is that correct?

A. That is correct.

Q. Okay. And going back to, I think we were at TEP slide 90. Could we get that back on the right side?

Okay. And going back to Route D, does Route D travel down parallel with a Gateway Corridor?

A. Yes, it does.

Q. And is that a significant issue of controversy in this case?

A. Yes, it is.

Q. Okay. Let me also ask you, we heard some testimony again from Mr. Jocham talking about the construction and the undergrounding of the line. And you've testified that that would be a very large, significant impediment and maybe even close down the Ring Road.

If they were sited along this road, though, as

Mr. Bryner's testified, on a private road and a condemnation proceeding was pursued, would Banner strongly contest any condemnation along Ring Road?

A. Yes.

Q. Which is Banner's private road?

A. Yes, we would.

Q. And would that condemnation process, which is a litigation process, further delay the construction of the line?

A. I believe that it would.

Q. Okay. Let's go to Route 1, if we could have TEP Slide 106 on the left side. And Slide 111 -- or Slide 236 on the right screen. Sorry. I'm making them jump around. And it's 106.

Mr. Barkenbush, could you please orient the Committee again on the left screen, which is Applicant's Exhibit 106 showing alternative Route 1 where the campus is and where the route goes?

CHMN STAFFORD: It's Exhibit 1, page 106, I believe -- Slide 106.

MS. DE BLASI: Sorry. Slide 106. Thank you, Chairman.

MR. BARKENBUSH: So on Slide 106 the hospital is located just to the right of the yellow triangle where the Vine Substation is shown where the

cursor is moving, and below the Ring Road or the green line depicting the route.

BY MS. DE BLASI:

Q. Okay. And just orient us to the direction of the route.

A. The direction of the route leaves the Vine Substation traveling to the east along the Ring Road and then turning to the south traveling down Campbell Avenue.

Q. And what is Banner's position on Route 1?

A. We do not support Route 1.

Q. Okay.

CHMN STAFFORD: I need to correct myself. It's actually Exhibit TEP-8, not 1. 1 is the application, 8 is the slide. Please go ahead. I just wanted to make sure I corrected that, because I made a point to say it was TEP-1, but it's TEP-8.

MS. DE BLASI: Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: May I point out that this map indicates that there is overhead distribution all the way up to, looks like up to Ring Road. Currently existing on that line on Campbell Avenue.

CHMN STAFFORD: Yes, that's what the dots recognize that it's overhead distribution that will be

undergrounded in the event of an overhead 138 line.

MEMBER LITTLE: Right. In a previous discussion there was some question whether there was 46kV distribution existing on that line that far north. And there is.

CHMN STAFFORD: Yes, to Ring Road. Correct.

BY MS. DE BLASI:

Q. Do you recall the testimony from TEP that the 46kV is at about 45 feet?

A. Yes, I do.

Q. Okay. Is going down this route, you said Banner opposes it. Does this Route 1 create the same restrictions access for the helicopter landings for the medical facility?

A. Yes.

Q. And does it also create the same issue as shown in KOP number 29 with the viewshed to the north?

A. Yes.

Q. And is that whether it's on Lester or Ring Road?

A. Yes. That is correct.

Q. Okay. And similar situation or same, I guess, situation related to the sensitive equipment?

A. Yes, it is.

Q. Okay. And what about construction and noise

along that route?

A. It has the same constructability challenges.

Q. Okay. Can we get TEP Slide 111 on the right side, please?

Could you read the last bullet on this slide?

A. "Possible route share occurs if Route D and 1 are selected from Campbell to Vine Substation on Ring/Lester."

Q. And as you previously testified, would this impact great -- have an even greater impact on that viewshed and the other impacts that you've testified to?

A. Yes, it would. Because of the double lines.

Q. Okay. And also with respect to the condemnation of that road, if it were to be sited along Ring Road, which is a private road?

A. Yes. We would oppose condemnation.

Q. And might that condemnation process further delay the construction of the line?

A. Yes, it would.

Q. All right. Moving to Route 6, if we could have TEP Slide 193 on the left. And Slide 236 on the right. Okay. That works too.

Mr. Barkenbush, can you -- thank you. Could you orient us on the slide on the left which is applicant Slide 193 showing route alternative -- wait, we should be

on -- alternative Route 6.

A. Sure. The hospital campus as in other images is immediately to the right of the yellow triangle below the word Ring Road and this route.

Q. Okay. And the direction of the route?

A. The direction of the route leaves the Vine Substation, travels to the east and north of our properties to Campbell Avenue where it turns to the north on Campbell Avenue and proceeds north to Grant Road, and then turns on Grant Road and travels a good distance to the west to Stone and then south on Stone and finds its way ultimately to Kino.

Q. Okay. And what is Banner's position on Applicant's alternative Route 6?

A. We oppose this route.

Q. And would Route 6 impact to the north the same, cause the same restrictions on your helicopter emergency operations?

A. Yes. It would.

Q. And what about the viewshed in relation to KOP 29?

A. It has the same impact.

Q. Okay. How about the sensitive equipment and the proximity of a large line next to the hospital?

A. Those are also the same concerns.

Q. Okay. And what about construction along that Ring Road or Lester Road area with respect to either undergrounding or overhead lines?

A. Those are the same as well.

Q. And the same with restricting access to the hospital?

A. Yes. Those are the same.

Q. Okay. Could we get TEP Slide 198 up on the right side?

It doesn't have to be on the right side. It's really small.

Are you able to read the last line? It's like a vision test.

A. Yes, I am. It says, "Possible route share occurs if Route D and 6 are selected from Stone to Campbell on Grant, from Grant to Lester on Campbell, and from Campbell to Ring on Lester."

Q. Okay. So again, would a double line along this road be even more impactful to all the different issues that you've already talked about?

A. Yes, it would.

Q. And if siting along the private road, Ring Road, would Banner contest that condemnation process?

A. Yes, we would.

Q. And might this condemnation process further

delay construction of the line?

A. Yes. It would.

Q. Okay. And I just have some -- some general questions.

Have you been directly involved in conversations with TEP on the different route alternatives both in the previous application and this application?

A. Yes, we have.

Q. Was Mr. Bryner involved in those discussions or was it someone else from TEP?

A. On the original application it was other representatives from TEP, and just Mr. Bryner -- Mr. Bryner and others on this current application.

Q. Okay. And I believe in that application, the preferred routes were along Ring Road; correct?

A. Yes. They were.

Q. Okay. And did Banner provide its adverse position on any routes along the Ring Road/Lester Road area previously discussed?

A. Yes, we did.

Q. And what were those conversations?

A. They were very similar to my testimony today where we immediately opposed those routes, citing all of the types of reasons that I have testified to today.

Q. And so in this application, the preferred

alternatives which you've testified avoid those routes, is that the reason that Banner supports the routes B and Route -- Route B and Route 4?

A. Yes, it is.

Q. Okay. And just to close out, would routes D, 1, and 6 be detrimental to the operations of the children's hospital as well as the other hospital and the medical campus as a whole?

A. Yes, it would.

MS. DE BLASI: That's all I have, Chairman.

CHMN STAFFORD: Thank you. Any cross from the applicant?

MS. GRABEL: I didn't, but I have just one quick thing based on something Mr. Barkenbush testified about.

CROSS-EXAMINATION

BY MS. GRABEL:

Q. Mr. Barkenbush, I believe that when Ms. De Blasi asked you what the word constraints meant as shown as Slide 236 of Exhibit TEP-8, you testified that it meant that it would be, "Difficult for entities to stay in operation." Do you recall saying that?

A. I do.

Q. Okay. Were you here for the testimony of

Mr. Bryner?

A. Can you repeat that?

Q. Sure. Were you here for the testimony of Mr. Bryner last week?

A. Yes, I was.

Q. Specifically did you hear him talk about what the meanings of opportunities and constraints meant during the TEP siting process?

A. I recall him saying that. I don't recall the specific definitions he provided.

Q. Okay. Well, would you defer to Mr. Bryner's testimony about what the word constraints meant to TEP within the context of the siting study?

A. Yes.

Q. And would you defer that even if it's in conflict with the definition you provided here this afternoon?

A. I believe so. My testimony today was very focused on our specific operations and so perhaps not as appropriate to the broader TEP context.

Q. Okay. So if Mr. Bryner testified that generally speaking that constraints means that these are factors that make construction of an aboveground or an underground transmission line more difficult to TEP, would you defer to that over your definition was it would

be difficult for your entity to stay in operation?

A. Yes. I'm comfortable with that.

MS. GRABEL: Okay. Thank you.

CHMN STAFFORD: Mr. Lusk.

CROSS-EXAMINATION

BY MR. LUSK:

Q. Mr. Barkenbush, I just have to ask you, and if you don't know the answer that's fine. You work at the hospital; correct?

A. I do not office there. My assignments are companywide, so I'm down here at least once a month.

Q. But you're familiar with the area?

A. Yes, sir.

Q. My understanding is there's no transmission line on Campbell in that area. Is that right?

A. I am not aware of any transmission, certainly not any 138kV transmission lines. I believe the largest or the highest voltage is 46kV.

Q. Can we get TEP-111 up?

MS. HILL: The Company will stipulate that there is no 138kV transmission line on Campbell.

CHMN STAFFORD: Thank you.

BY MR. LUSK:

Q. I guess what I'm -- Member Little suggested

there's a 46kV line on Campbell. Is that your understanding, Mr. Barkenbush?

A. I don't know the voltage that it is at. From what I have gleaned from this hearing, I suspect it could be 46kV.

Q. We can recall TEP, if that's okay.

CHMN STAFFORD: Now?

MR. LUSK: Not now, no.

CHMN STAFFORD: Because I was going to say I -- no. We're not recalling TEP right now.

MR. LUSK: No, not right now.

CHMN STAFFORD: I seem to recall that yes, that was the meaning of the dotted line on that previous slide. It was overhead line to be undergrounded if a 138kV line was built overhead on that stretch of road.

So I think that's pretty clear. I mean, we can follow up with TEP again later, because I'm -- my discussion with Members earlier, we're going to have to recall them, some of the witnesses to ask some follow-up questions at some point. But I think perhaps Ms. Grabel could stipulate to that. I mean, that was their own exhibit, that's what it says.

MS. GRABEL: Yes, we will stipulate that the lines that are running down Campbell are not transmission lines. They are distribution lines.

MR. LUSK: Thank you, Ms. Grabel.

CHMN STAFFORD: Do you have any other questions, Mr. Lusk?

MR. LUSK: No, that was it.

CHMN STAFFORD: Okay. Mr. Dempsey.

CROSS-EXAMINATION

BY MR. DEMPSEY:

Q. I just have a couple easy ones.

So Mr. Barkenbush, you mentioned that you invested money based on the views. Is it fair to assume that other investors in the area have made similar calculations?

A. I'm not sure what you mean by calculations.

Q. They've invested in the views?

A. Are you talking about commercial development?

Q. Any investor that has a view?

MS. DE BLASI: I don't know, Chairman, I don't know that Mr. Barkenbush can testify to other developers' intentions or I don't --

CHMN STAFFORD: Then I guess his answer would be I don't know.

MS. DE BLASI: Right. I'm sorry. But I don't. I don't know.

MR. BARKENBUSH: I was going to comment

that I can't speak for the other developers.

CHMN STAFFORD: "I don't know" is a perfectly acceptable answer.

BY MR. DEMPSEY:

Q. Yeah. Thank you. So just generally speaking, do you expect the City to enforce its ordinances and plans that protect views?

A. Yes, I would.

Q. Thank you. And this is just I guess more of a curiosity question. So is it not possible that the substation itself, no matter the route, could cause interference?

A. We haven't experienced interference from the existing substation that is being retired. And so based on that, I'm less concerned about the substation itself.

Q. Okay. Thank you.

MR. DEMPSEY: That's it.

CHMN STAFFORD: Any redirect, Ms. De Blasi?

MS. DE BLASI: Just a quick -- I think since there is a question about the level of distribution lines that are going in the Campbell -- up Campbell, if at some point when TEP is recalled, if they could just clarify that, I think it would be helpful for everyone, because I think there was some question about the size of those lines in there and actually their proximity to the

medical campus.

That would be our request.

CHMN STAFFORD: All right. Because I'm sure Mr. Bryner will be on the stand once again before this is all over with, and he's the perfect person to clear up all these questions.

MS. GRABEL: We'll have a cleanup panel.

CHMN STAFFORD: All right. So that concludes your testimony.

MS. DE BLASI: That concludes it.

CHMN STAFFORD: All right. And you had two exhibits, 1 and 2.

MS. DE BLASI: Correct.

CHMN STAFFORD: They are both admitted.

(Exhibits BUMCT-1 and BUMCT-2 were admitted.)

CHMN STAFFORD: I don't think we're going to start the next witness seeing how it's 4:41. Tomorrow, we'll begin with your witness, Mr. Lusk.

MR. LUSK: That's correct.

CHMN STAFFORD: Okay.

MR. LUSK: Chairman, yeah, I think that's right.

CHMN STAFFORD: Great. And then after that we'll move on to you, Mr. Dempsey. But let's get through

Mr. Lusk's witness first. So be prepared to start tomorrow. I'm not guaranteeing that you will, but be prepared to start.

Anything further from any of the parties? Members?

All right. With that we will recess until tomorrow morning. We'll come back here at nine. We're in recess.

(Proceedings recessed at 4:42 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206(J)(1)(g)(1) and (2).

Dated at Phoenix, Arizona, July 22, 2024.



JENNIFER HONN, RPR
Arizona Certified Reporter
No. 50885

I CERTIFY that GLENNIE REPORTING SERVICES, LLC, has complied with the ethical obligations set forth in ACJA 7-206(J)(1)(



GLENNIE REPORTING SERVICES, LLC
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No. R1035

BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

LS-360

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 16, 2024

Filed: July 24, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME VII
(Pages 1325 through 1558)

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ACC - Docket Control - Received 7/25/2024 3:13 PM
ACC - Docket Control - Docketed 7/25/2024 3:41 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789
VOLUME IV	July 11, 2024	Pages 790 to 857
VOLUME V	July 12, 2024	Pages 858 to 1044
VOLUME VI	July 15, 2024	Pages 1045 to 1324
VOLUME VII	July 16, 2024	Pages 1325 to 1558

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719
Index to the Tour	
Stop 1	801
Stop 2	813
Stop 3	828
Stop 4	833
Stop 5	845
Stop 6	847

INDEX TO EXAMINATIONS

WITNESSES	PAGE
Mark Castro - for City of Tucson	
Direct Examination By Mr. Lusk	1340
Cross-Examination By Ms. Grabel	1422
Redirect Examination By Mr. Lusk	1440
Daniel Dempsey - for Underground Arizona	
Testimony of Mr. Dempsey	1445
Cross-Examination By Ms. Grabel	1516

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	1225
TEP-2	Map of Proposed Project	21	1225
TEP-3	Testimony of Clark Bryner	52	1225
TEP-4	Testimony of Chris Lindsey	54	1225
TEP-5	Testimony of Erik Bakken	57	1225
TEP-6	Testimony Summary of Larry Robinson	386	1225
TEP-7	Testimony Summary of Jason Jocham	948	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-8	Witness Presentation	49	1225
TEP-9	TEP Ten-Year Plans	58	1225
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	1225
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	1225
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	1225
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	1225
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	1225
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	1225
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	1225
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	1225
TEP-10	Exhibits Regarding Notice Requirements	58	1225
TEP-10A	Notice of Hearing	58	1225
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	1225
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	1225
TEP-10E	Map of Notice of Hearing Sign Locations	58	1225
TEP-10F	Photographs of Sign Placement	58	1225
TEP-10G	Example of Sign Contents	58	1225
TEP-10H	Notice of Service to Affected Jurisdictions	58	1225
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	1225
TEP-11	Receipt of Filing Fee	58	1225
TEP-12	Virtual Tour	504	1225
TEP-13	Tour Itinerary/Script/Protocol	254	1225
TEP-14	Summary of Public Outreach	929	1225
TEP-15	Proposed Certificate of Environmental Compatibility	1225	1225
TEP-16	Undergrounding Presentation	950	1225
TEP-17	Undergrounding Cost Analysis Study	948	1225
TEP-20	Additional Project Comments	929	1225
TEP-21	Letter of Support from University of Arizona	368	1225
TEP-22	Letter of Support from Tucson Metro Chamber	930	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-23	Letter of Support from Southern Arizona Leadership Council	931	1225
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	1225
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	1225
TEP-26	Gateway Corridor Zone Overlay Map	872	1225
TEP-27	National Grid Report re Undergrounding high voltage electricity transmission lines	1035	1225
TEP-28	City of Tucson Chicanes Examples	936	1225
TEP-29	Letter of Support from Boys & Girls Clubs of Tucson	1225	1225
TEP-30	Supplemental Undergrounding Cost Analysis	1012	1225
TEP-31	Updated Project Cost Summary and Comparison	1057	1225
TEP-32	Updated Corridor Map for Preferred Route	1211	1225
TEP-33	Tucson Sentinel News Article re Street	1197	1225
TEP-34	Excerpt from SRP High Tech Interconnection Project	1443	--
TEP-35	University Area Plan	1443	1444

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
BUMCT-1	Testimony Summary of Mark Barkenbush	37	1322
BUMCT-2	Witness Presentation	37	1322
COT-1	SARGENT & LUNDY UNDERGROUND COST ANALYSIS Report SL-015392	1405	1439
COT-2	Testimony Summary of Mark Castro	1405	1439
COT-3	CITY OF TUCSON MAJOR STREETS AND routes PLAN	1405	1439
COT-4	City of Tucson Election Official Voter information re: Proposition 412 (English and Spanish Version)	1405	1439
COT-5	City of Tucson Major Streets and Routes	1345	1439
COT-6	Link to Plan Tucson: City of Tucson General & Sustainability Plan (2013)	1405	1439
COT-7	Tucson Electric Power vs. City of Tucson and City of Tucson Board of Adjustment Under Advisement Ruling Pima County Superior Court Case No. C20235484	1405	1439
COT-8	WITNESS PRESENTATION MARK CASTRO	1405	1439
UAZ-1	Sargent & Lundy Report SL-015392 Revision 0 Report	1461	1537
UAZ-2	Sargent & Lundy Report SL-015392 Revision 7 Final Report	1537	1537

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-3	Excerpts of TEP CEC Application from Line Siting Case 192	1537	1537
UAZ-4	Excerpts of SRP Testimony from Line Siting Case 195	1537	1537
UAZ-5	Excerpts of SRP Exhibits from Line Siting Case 195	1462	1537
UAZ-6	Excerpts of Chandler Exhibits from Line Siting Case 195	1537	1537
UAZ-7	Excerpts of APS Testimony from Line Siting Case 198	1537	1537
UAZ-8	Excerpts of APS Exhibits from Line Siting Case 198	1208	1537
UAZ-9	Excerpt of SRP District Board Meeting Notice & Agenda 3/28/2024	1455	1537
UAZ-10	APS Central Phoenix Project Website	1537	1537
UAZ-11	Underground Arizona Website	1525	1537
UAZ-12	PDI2 Utility Undergrounding Lifecycle Cost Guide	1537	1537
UAZ-13	S&C Electric Company: The Changing Economics of Utility Investment in Undergrounding	1480	1537
UAZ-14	Utility Dive: As wildfires losses mount, will commercial insurers decline to cover utilities?	1480	1537

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-15	EIA Electric Power Annual Report, Table 11.1: Reliability Metrics for the U.S. Distribution System	1481	1537
UAZ-16	10th International Conference on Insulated Power Cables: Can cables last 100 years?	1174	1537
UAZ-17	TEP 2023 Annual Report 10K, Note 4.	1537	1537
UAZ-18	UMC Banner Letter of Opposition	1538	Not Utilized
UAZ-19	Not Utilized (See TEP-35)	1433	Not Utilized
UAZ-20	TEP-University of Arizona Special Contract	1538	Not Utilized
UAZ-21	TEP-City of Tucson Franchise Agreement	1011	1540
UAZ-22	Zoning Examiner's Decision on TEP Special Exception Permit	1426	1540
UAZ-23	Zoning Administrator's Determination on Gateway Corridor	1540	Not Utilized
UAZ-24	University Area Plan Excerpts	1540	1541
UAZ-25	APS Tempe Town Lake 230 kV OH/UG Conversion Project Slides	1540	Not Utilized
UAZ-26	Blank	1540	Not Utilized

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-27	Plan Tucson Goals & Policies	1542	Not Utilized
UAZ-28	Plan Tucson Chapter 3	1542	Not Utilized
UAZ-29	Timeline of Events by Underground Arizona	1542	Not Utilized
UAZ-30	Arizona Revised Statutes 40-360.06	1542	Not Admitted
UAZ-31	Arizona Revised Statutes 48-621	1547	Not Utilized
UAZ-32	Streetscape Photos by E. Alster	1547	Not Utilized
UAZ-33	Visit Tucson Annual Report	1547	Not Utilized
UAZ-34	TEP 2023 Annual Report 10K Excerpts	1543	1544
UAZ-35	TEP 2020 Annual Report 10K, Cash Flow Statement	1543	1544
UAZ-36	APS 2023 FERC Form 1 Excerpts	1455	1544
UAZ-37	APS 2022 FERC Form 1 Excerpts	1462	1544
UAZ-38	APS 2021 FERC Form 1 Excerpts	1462	1544
UAZ-39	APS 2020 FERC Form 1 Excerpts	1462	1544
UAZ-40	APS 2019 FERC Form 1 Excerpts	1462	1544
UAZ-41	APS 2018 FERC Form 1 Excerpts	1462	1544
UAZ-42	Excerpt of APS Exhibits from Line Siting Case 169	1543	1544

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-43	UNS Electric Study: Appendix D: Property Values effects from High Voltage Overhead Transmission Line: Study Methodology, Analysis, and Conclusions	1485	1544
UAZ-44	Tucson.com: Tucson City Council approves 20-story tower at Speedway and Campbell	1489	1544
UAZ-45	KGUN9: Apartments, retail development coming to edge of UArizona campus	1489	1544
UAZ-46	Tucson.com: A new 10-story student housing complex is going up in Tucson	1489	1544
UAZ-47	Utility Dive: Arizona regulators OK 10% Tucson Electric Power rate increase, eliminate EV incentive	1478	1544
UAZ-48	Tucson.com: Tucson Electric Power's $$99.5M rate increase proposal hits residential customers hardest	1478	1544
UAZ-49	TEP.com: Investing in Our Community	1547	Not Utilized
UAZ-50	TEP.com: Ratepayer Assistance	1547	Not Utilized
UAZ-51	FINRA Series 86 & 87 lines Examination Content	1451	1544
UAZ-52	Arizona Real Estate Broker lines Examination Content	1547	Not Utilized
UAZ-53	APS 2023 Ten Year Transmission Plan Excerpts	1544	1544

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-54	Excerpts of TEP CEC App Case 192, pages 11-17, 867-869	1461	1545
UAZ-55	Southwire 138kV and 230kV XLPE Product Brochures	1545	Not Utilized
UAZ-56	Study: Underground power lines can be the least cost option	1480	1547
UAZ-57	APS vs. Town of Paradise Valley (1980), Arizona Supreme Court	1545	Not Utilized
UAZ-58	Excerpts of SRP Exhibits from Line Siting Case 175	1462	1547
UAZ-59	Tables of Sargent & Lundy and Comparables	1186	Not Utilized
UAZ-60	TEP Reliability Press Release	1546	Not Utilized
UAZ-61	Excerpts of APS Testimony FORM Line Siting Case 196	1546	1547
UAZ-62	Witness Presentation	1450	1547

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:09 a.m. on July 16, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns (via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public (via videoconference)
DAVE RICHINS, General Public
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CHMN STAFFORD: Let's go back on the record.

Mr. Lusk, now is the time for you to present your direct case. If you'll call your witness, and we'll get him sworn in.

MR. LUSK: Thank you, Chairman.

The City of Tucson calls Mark Castro.

CHMN STAFFORD: Good morning. Mr. Castro, would you prefer an oath or affirmation?

MR. CASTRO: An oath is fine.

CHMN STAFFORD: Do you swear the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth so help you God?

MR. CASTRO: Yes.

CHMN STAFFORD: Please proceed, Mr. Lusk.

MR. LUSK: Thank you, Chairman.

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MARK CASTRO,

called as a witness on behalf of City of Tucson, having been affirmed or sworn by the Chairman to speak the truth and nothing but the truth, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LUSK:

Q. Good morning, Mark.

A. Good morning.

Q. Are you comfortable over there?

A. A little bit.

Q. It's hard for me to see you over there, actually.

Can you introduce yourself to the Committee and talk a little bit about your -- what you do?

A. Sure. Absolutely.

Good morning, everyone. My name is Mark Castro.

I am a principal planner with the City of Tucson. I've been working for the City of Tucson for approximately 19 years. 15 of those years has been with the planning and development services department.

I received my bachelor's degree from the Northern Arizona University in public planning.

My current roles and responsibilities is

supervising a team that oversees the processing of these special zoning-type applications that our department has as well as manage the board of adjustment, variance process and site review involving commercial and residential projects.

Q. Thank you, Mr. Castro. Can you talk a little bit about what the plan review process is?

A. Absolutely. So, in general, our department oversees plan review projects that come in through for, you know, residential or development projects.

It typically goes through a plan review process, which would be plans for development and new construction within the City of Tucson. Those are reviewed for conformance to applicable zoning regulations. And those applicable zoning regulations may include zoning districts, overlay zones, permitted uses, use-specific standards, dimensional standards for structures and development standards such as required parking and landscaping.

Zoning regulations for the City of Tucson are contained within the Unified Development Code.

Q. And shorthand for that is UDC; correct?

A. That is correct.

Q. Can you talk a little bit about some of the -- who does those reviews within PDSD?

A. So we have the zoning administrator is responsible for giving final determinations on substantive provisions of the UDC and their application.

We do have the zoning examiner who holds public hearings for rezonings, special exceptions, expansion of or substitution of nonconforming uses.

And then we have the board of adjustment, which is a body that hears and decides requests for variances from the provisions of the UDC. They also hear appeals of the zoning administrator interpretations and appeals from administrative design review decisions and limited notice procedure decisions.

Q. And you actually staff that body, correct, the board of adjustment?

A. That is correct.

Q. Now, have you had an opportunity to briefly review the project we're talking about, the Midtown Reliability Project that TEP has proposed?

A. Yes, I have.

Q. Can you talk a little bit about what you've -- your initial review determined?

A. So just my overall perception it's, you know, due to the size of the project area, there are applicable zoning districts along the route that include almost all of the zoning districts that are contained. So that's

your residential zoning such as R-1, R-2, and R-3, commercial zoning such as C-1, C-2, and C-3, and our industrial zones.

Additionally, the project area implicates historic preservation, which is an overlay near Speedway and the Gateway Corridor overlay along Campbell Avenue, Oracle Road, and Broadway Boulevard.

For the purposes of this current proceeding, this review will focus on the GCZ and its undergrounding requirements.

Q. And can you talk a little bit about where the GCZ came from and what it is?

A. So the GCZ came from the Major Streets and Routes Plan, which was originally adopted in 1982 as a way of implementing the transportation policies of the City of Tucson's general plan.

And they do this by classifying the streets into freeways, arterials, and collectors, designating current and future right-of-ways, establishing scenic and gateway routes that are key to the preservation of vistas and natural vegetation and/or to upgrading the developed streetscape of the City.

As included in Plan Tucson, the Major Streets and Routes Plan does contain the plan itself and a map and is implemented in the UDC as three overlay zones.

And that's the Scenic Corridor Zone, the Gateway Corridor Zone, and the Major Streets and Routes setback zone.

Q. And just briefly, can we talk a little bit about what an overlay zone is as opposed to the original zoning of districts?

A. So the overlay zoning is essentially -- it's -- how do I describe this? It's an overlay that goes -- that covers more than just the zoning, you know, for let's say for an example like residential zoning R-1, R-2. An overlay zone can encompass all of those zonings just depending on the area, and it's focused on specific standards, and it overrides what the underlying zoning is.

So if there's restrictions, typically you get those from the overlay zones rather than the underlying zones.

Does that make sense?

Q. It does.

And are there additional requirements for an overlay zone other than the regular zoning requirements?

A. There typically are. That's correct.

Q. Thank you. I'm showing a map on the slide here.

Can you describe what that's showing?

A. So this is the MS&R plan map. The blue highlighted routes are -- those are the gateway routes.

The green that you see there is the scenic corridor zones. And then the yellow is, of course, the freeway or the interstates.

CHMN STAFFORD: Mr. Lusk, which -- what are we looking at? This is slide what of Exhibit 8?

MR. LUSK: I apologize, Member. We couldn't get them to number them. I can -- I can say that this is COT-5 actually. It's just included in the slide.

CHMN STAFFORD: Okay.

BY MR. LUSK:

Q. I'm sorry, Mr. Castro. Can you continue?

A. Sure. And then also you see on the routes you'll see some numbers. Those numbers indicate the future rights-of-way widths of those streets, and there's also SP you see noted somewhere sometimes on the maps, and that refers to a specific plan for engineering. And that's mostly for right-of-way work.

Q. And that determines what widths the right-of-way might be in a particular area and what the goal or the goal widths are for future reference?

A. Correct.

Q. Thank you.

And for our purposes, I believe, that you mentioned that the Gateway Corridor -- Gateway Corridors

for this project are in blue --

A. Yes. Blue.

Q. -- in the project area?

A. Yes.

Q. And would that include Campbell, Oracle, and Broadway?

A. That is correct.

Q. And for clarity, Oracle is not a Gateway Corridor for the entire length?

A. That's correct.

Q. Okay. Can you talk a little bit about what's required within the GCZ?

A. So what's required in the GCZ. Let me see if I can get the right slide up here.

Did you want to talk about this here?

Q. Oh, sure. I'm sorry. I skipped around a little bit for you.

A. Okay.

Q. Please talk about your review of the Midtown Reliability Project as it relates to the GCZ.

A. Okay. So this kind of goes with the previous map, the MS&R map. So we saw that north and south Routes 1, 2, and 6 run parallel to the Gateway Corridor Zone on Campbell Avenue.

The east/west Route D runs parallel to the

Gateway Corridor Zone on Campbell Avenue.

And all east/west routes, that's A through D, cross perpendicularly to the GCZ on Oracle Road.

All north and south Routes 1 through 6 cross perpendicularly the GCZ on Broadway Boulevard.

And the north/south Route 2 crosses perpendicularly the GCZ on Campbell Avenue and runs parallel to Broadway Boulevard.

Q. Thank you.

And I think there's a map that was prepared by the applicant included in our slides?

A. Here. I think this is it.

Q. And what's depicted on this map, if you could just briefly describe it?

A. So what's depicted on this map is the alternative routes showing the routes. Also the Gateway Corridor Zone, which is down Kino and Campbell Avenue, and also the preferred routes that go to DeMoss Petrie.

Q. And for the record, this is a slide of TEP-26?

A. Yes.

Q. There are -- just for clarity, there are some shaded portions along Campbell, Broadway, and I believe that's Oracle.

Is that the Gateway Corridor Zone?

A. Yes, it is.

And that's within the it looks like the University Area Plan. And it looks like Sam Hughes Neighborhood Plan is in there as well.

Q. And those are hatched?

A. Correct.

Q. There's also shaded areas along or near Silverbell.

Are those Gateway Corridors?

A. So along Silverbell, that would be the Scenic Corridor Zone.

Q. So that's a different overlay than the Gateway Corridor Zone?

A. That's correct.

Q. Is it similar in its requirements as well?

A. Yes, it is. Yes, it is.

The Scenic Corridor Zone is really focused on preservation of views and vistas, but it's ultimately the requirements are similar.

Q. Okay. Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, is this Member Little?

MEMBER LITTLE: Yes.

I'm just wondering where Silverbell is -- I'm not that familiar with Tucson -- generally on the map where it is.

CHMN STAFFORD: Yeah. Do you have a pointer or something you can use for the map?

MR. LUSK: I think Mr. Castro does.

CHMN STAFFORD: Excellent.

Can you see the pointer, Member Little?

MEMBER LITTLE: No.

CHMN STAFFORD: Okay.

MEMBER LITTLE: Just generally where it is.

CHMN STAFFORD: I think there's a pointer that works that you can see.

MEMBER LITTLE: Yes. Yes.

CHMN STAFFORD: Excellent.

MR. CASTRO: There you go. Right here.

MEMBER LITTLE: Thank you.

MR. CASTRO: Sure.

MEMBER LITTLE: Okay.

BY MR. LUSK:

Q. Thank you, Mr. Castro.

A. Sure.

Q. Now we can get to what the actual GCZ requires. Thank you.

A. Okay. Okay. So what does the GCZ require? UDC sections of the Tucson Unified Development Code 5.5.4.B.1.a states that, "New utilities along gateway routes shall be underground unless relief is

otherwise granted pursuant to UDC Sections 5.3.14, Variances or through a Zoning Examiner special exception process per Section 4.911.A.12."

Upgrades or reinforcements of existing overhead utilities are allowed. And that's under UDC Section 5.5.4.B.1.b.

The project consists of a new transmission line proposed in part along the Campbell and Broadway GCZs and subject to the UDC Section 5.5.4.B.1.a in those areas and the applicable perpendicular crossings of Oracle, Campbell, and Broadway.

Q. Thank you.

Mr. Castro, I want to focus in a little bit because I know there was a question about there's currently some overhead lines on Campbell now. I think they were described as distribution lines yesterday.

Those distribution lines, if they existed prior to the adoption of the MS&R plan, would they be allowed to be replaced?

A. Yes. They would.

Q. Under the GCZ requirements?

A. Right.

Q. Thank you. Can you talk a little bit --

MEMBER LITTLE: Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Could you clarify that last statement a little bit?

Replaced in kind or replaced with other lines?

What does that "replaced" mean?

BY MR. LUSK:

Q. Mr. Castro, if you could answer that to the best of your ability.

A. Let me pull up that section. Just give me one second.

Q. Sure.

MEMBER KRYDER: Mr. Castro, would you speak a little closer to your microphone for me, please.

MR. CASTRO: Sure. Is this better?

MEMBER KRYDER: Much better.

BY MR. LUSK:

Q. And, Mr. Castro, while you're looking at that, let me see if I can clarify Member Little's question.

As it relates to replacement of distribution poles within the Gateway Corridor Zone, if there are -- if it doesn't increase the number of electrical circuits or communication lines or moves the pole in any significant direction, would that be an appropriate replacement?

A. So I believe the answer to the question I have

here is sited in this code section. It states that, "When necessary to serve new development, a new pole set in line with, but not extending, an existing overhead system used to serve new development is not considered a new utility.

"Upgrades and reinforcements of existing overhead facilities are allowed to the extent that the total number of electrical circuits or communication cables is not increased."

Q. Thank you, Mr. Castro.

MR. LUSK: Member Little, does that answer your question?

MEMBER LITTLE: Thank you. Yes.

BY MR. LUSK:

Q. All right. Moving forward on the -- on your presentation.

Is there relief available from the Gateway Corridor Zone if required -- if necessary?

A. So there is relief provided. We do have the zoning examiner special exception process. It's listed in UDC Section 3.4.3.

The zoning examiner special exception process consists of a pre-application conference, an application, a neighborhood meeting, and a public hearing and zoning examiner decision.

UDC Section 3.4.5 requires that the PDSD director make a finding and a recommendation to the zoning examiner prior to the zoning examiner's decision. The zoning examiner may condition any approval on reasonable and appropriate conditions to ensure compliance with the criteria for approval.

Q. And just for clarity, that's the relief from the actual undergrounding requirement within the GCZ, is that right, for new utilities?

A. That's correct.

Q. Thank you.

Are there other -- other ways to get relief?

A. There is.

It's also the -- there's the board of adjustment variance procedure. And I can go -- I can speak to that or we can talk a little bit more about the special exception.

Q. Sure. Are there factors that the zoning examiner will look at to determine whether it's an appropriate relief?

A. Sure. So for the special exception the request to relieve undergrounding requirement must meet one or more than one criterion listed in subsections A through H below that you see up here on the screen. Let me get that to the screen. There we go.

Q. So can you briefly go through those factors? That's a lot to read, I think.

A. Sure. Item A, The proposed overhead transmission lines are contextually sensitive to adjacent and surrounding zoning and land uses. Examples of this may include a proposed location that is industrial zoned or a proposal that results in a less adverse aesthetic impact or less adverse impact on viewsheds for surrounding properties.

Q. Mr. Castro, before you go on, I want to be clear for the record.

So this is -- this is a special exception process specifically to grant relief for undergrounding of a transmission line within the Gateway Corridor Zone; is that right?

A. That's correct.

Q. Okay. Please proceed. Thank you.

A. Item B, Requiring underground construction would cause a significant increase in ground disturbance when compared to overhead construction in sensitive areas such as the environmental resource zone or watercourse amenities, safety, and habitat, wash crossings, or environmentally and archaeologically sensitive areas.

Q. So I'm going to stop you there again. I apologize.

But so in the case of an undergrounding construction within the Gateway Corridor Zone where there is found to be archaeologically sensitive materials, could the applicant proceed through this process and be granted relief?

A. Yes. That's correct.

Q. Thank you. Please proceed.

A. Item C, That the proposed overhead transmission line will have minimal impact on residential areas.

Item D, That the relief is requested for a segment that perpendicularly crosses a Gateway Corridor Zone or a Scenic Corridor Zone.

Q. I'm going to --

MEMBER KRYDER: Mr. Chairman.

MR. LUSK: Oh, please.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Mr. Castro, could we go back to Item C for just a moment?

MR. CASTRO: Sure.

MEMBER KRYDER: Speak with us a bit about the word "minimal" there.

Who measures that and how is it measured?

And just fill in the blanks there for us would you please.

MR. CASTRO: Sure, Member, and,

Mr. Chairman, and Members of the Committee.

So that's a great question. And since this is part of a special exception procedure, it's ultimately going to be decided by the zoning examiner whether or not the application meets those findings.

So it really is based on how the application is presented, what information they have provided, and what the zoning examiner would determine is minimal impact.

MEMBER KRYDER: So it -- excuse me. So it finally comes down to what the zoning examiner would say yes, that's minimal, oops, no, that's not minimal?

Is that where we are?

MR. CASTRO: That's correct.

MEMBER KRYDER: And is there appeal from that?

MR. CASTRO: I believe there is an appeal process for a zoning examiner special exception. I believe that does go to mayor and council.

I can verify that if you want to give me a moment.

MEMBER KRYDER: Yes, I would.

It seems when it finally comes down to a one-person decision, that's kind of a tough place to be. Regardless of the outcome somebody always feels like

somebody's got their hand in their pocket or whatever.

BY MR. LUSK:

Q. Mr. Castro, while you're looking at that, if I can expand upon Member Kryder's question it might be helpful to discuss the nature of the special exception process.

I think you described it as an application. And then there's some additional public involvement as well; is that right?

A. Yes. That's correct.

There is a pre-application conference required with the City of Tucson that involves City staff and their various disciplines. There's also a neighborhood meeting required, so there is outreach. It's a 400-foot notice procedure. So that's property owners within 400 feet of the site and all neighborhood associations within a mile.

And then there's the we -- once the application is submitted, the City does its own mail out using the same mailing list to those property owners or interested parties for comment.

So there is a comment review period.

The director of PDSD does make a recommendation to the zoning examiner. And then it's up to the zoning examiner during a public hearing to review all the

materials that had been submitted, including any public feedback when he makes his -- when he makes his final ruling.

Q. And that's a local process, correct, that happens here in Tucson?

A. That is correct.

Q. And members -- you said the 400-foot procedure.

Can you briefly describe what that is?

A. So the 400-foot procedure is just that. It is we make a buffer from the property or the project site. We measure 400 feet out. Any property owners within that are noticed.

And then we do the same for neighborhood associations. We make a buffer around the project site or project area, measure a mile out, and then all neighborhood associations contained within there are also part of the notification list.

Q. And all those persons and neighborhood associations noticed are able to participate in the public hearing?

A. That is correct.

Q. Thank you, Mr. Castro.

MEMBER KRYDER: And another question, please.

MR. LUSK: Sure.

MEMBER KRYDER: In that is there mitigation or does it still finally come down to the zoning inspector says yea or nay?

MR. LUSK: Member Kryder, I'm sorry, can you clarify as to what you mean by mitigation?

MEMBER KRYDER: I'm sorry. Looking at what I just heard Mr. Castro say was that there would be the community meetings and other pieces and such, and that would give the zoning inspector -- is that the right title?

MR. LUSK: Examiner I believe is the correct term.

MEMBER KRYDER: That would give that person the background in order to take a knowledgeable decision.

And my question was toward in that is it still a yes or no answer?

Or does when the community speaks or the community association or anyone who has a voice in this speaks, can they say, well, if we would do this, would it be possible if we don't do that, would it be possible?

So is there mitigation really is what I was looking at.

MR. LUSK: Thank you, Member Kryder. I think I understand.

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BY MR. LUSK:

Q. I think, Mr. Castro, Member Kryder is asking can the special exception process proceed and the zoning examiner provide the special exception with conditions?

A. Yes. Yes. To answer the question, the zoning examiner at least in my experience, has always felt, you know, neighborhood input is important when making a decision.

So if there is some compromise or agreement or terms that are amenable to both parties, the zoning examiner, like I said, in my experience has made conditions of approval based on those.

Q. So, for example, if for this particular project, if the special exception request was to grant relief from the GCZ underground requirement, this zoning examiner could consider something like undergrounding distributions lines in the area as a condition of approval?

A. Yes.

Q. Thank you, Mr. Castro.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: One second, Member Gold. Member Hill had signaled she had a question.

MEMBER HILL: Can you characterize the

zoning examiner's qualifications? Is this an employee of the City? Is it a third party?

Can you characterize their qualifications in that role?

BY MR. LUSK:

Q. Sure. Mr. Castro, if you know, I believe they're an employee of PDSD; is that correct?

A. Not an employee of the planning development services, but --

Q. I'm sorry. Thank you.

A. -- but I believe of the city manager's office. And I don't -- I can pull that up too.

Q. Sure. Take your time.

A. If you give me a moment.

MR. KRYDER: Okay. So just for clarification as you're looking that up, Mr. Castro, is this a single person who has this as a year-round responsibility, or is this an ad hoc sort of person who is applied in this case and another person in another case?

MR. LUSK: Sure.

BY MR. LUSK:

Q. Mr. Castro, I think what the Member Kryder is asking is is this a person appointed by the city manager to perform this particular function?

A. Yes. That's correct.

So the zoning examiner does -- is appointed by the city manager, and the zoning examiner serves at pleasure of the city manager.

MR. LUSK: Did that answer your question, Member Kryder?

MEMBER KRYDER: Thank you very much. Yes.

MR. LUSK: Of course.

CHMN STAFFORD: Are you still working on the answer to Member Hill's question?

MR. CASTRO: And, Member Hill, can you repeat the question, please?

MEMBER HILL: Yes. So in some communities, examiners are a third party, kind of a judicial process where they're kind of a judge, right, like they collect and hear from all the interested parties related to an issue and make a decision.

In other communities, it's actually an employee of the City. And so I was just trying to understand how Tucson structures their examiners system and what their qualifications are for that position.

BY MR. LUSK:

Q. Sure. I think, Mr. Castro, you described that as they are an employee of the city appointed by the manager; is that right?

A. That's correct.

Q. I'm not sure that any qualifications are indicated within the code itself?

A. And I'm not seeing any other than, right, yeah there are no specific qualifications to holding that position, and it's just one person.

MEMBER HILL: And it is -- it is for all examination cases or just the GCZs?

Is it the same person that does all kind of the --

MR. LUSK: All special exceptions.

MEMBER HILL: -- all special exceptions?

BY MR. LUSK:

Q. Go ahead, Mr. Castro.

A. Sure. So the zoning examiner oversees the rezonings. So he hears the rezonings, also the special exceptions, and some other cases that are at the city manager's request.

So it's not just the special exceptions. So there are other hearings that the zoning examiner is involved in.

MEMBER HILL: Thank you.

CHMN STAFFORD: Member Gold, you had a question?

MEMBER GOLD: Yes. Thank you,

Mr. Chairman.

A couple of questions for Mr. Castro first.

Do you advise the zoning examiner?

MR. CASTRO: I do not.

MEMBER GOLD: Who does?

MR. CASTRO: So the director of planning and development services makes a recommendation to the zoning examiner. And that's who advises the zoning --

MEMBER GOLD: I'm sorry. Say that again? Whom?

MR. CASTRO: The planning and development services department director makes the recommendation to the zoning examiner in special exception cases.

MEMBER GOLD: Okay. And they work for the City of Tucson, Mr. Lusk?

MR. LUSK: Correct. That's the planning and development service department of the City of Tucson, yes.

MEMBER GOLD: Could you have them here as a witness?

MR. LUSK: If that's necessary. I think we can provide that, yeah.

MEMBER GOLD: Okay. Because they seem to be the ones who do the advice, and it might be a good idea for them to hear what we're debating.

MR. LUSK: Well, may I clarify, Member Gold?

MEMBER GOLD: Yes, please.

BY MR. LUSK:

Q. Mr. Castro, they don't advise the zoning examiner?

They provide a recommendation; is that correct?

A. That's correct. It's a recommendation.

MEMBER GOLD: Well, for the same semantics, I would suggest that they have a big part in what's going on now.

And to save time for the applicant later on, it might be advantageous for them to hear and be a witness for us.

MR. LUSK: So if I clarify, Member Gold, are you asking for the planning and development services department to make a recommendation on this project for a special exception process?

MEMBER GOLD: No. To be present so that they can make a recommendation well in advance.

This project has a suspense date of 2027. That's not a long time.

And I think something like that -- if they are the ones who make the recommendations to the zoning examiner, I don't know that you would want the zoning

examiner here personally, but you can certainly have his advisors here or his recommenders here as you phrased it.

Is that something that's out of line, Mr. Chairman, asking that person be present or those people be present?

CHMN STAFFORD: Well, it's up to the City to decide who their witnesses would be.

They've got Mr. Castro here.

I'm sorry. I forgot what was your title again, Mr. Castro.

MR. CASTRO: Principal planner, sir.

CHMN STAFFORD: Principal planner.

And you operate independently from the examiner and the --

MR. CASTRO: That's correct.

CHMN STAFFORD: But you all report to the city manager; correct?

MR. CASTRO: I report directly to the director of planning and development services.

CHMN STAFFORD: Okay. And so then that's who makes the recommendation to the examiner; right?

MR. CASTRO: That is correct.

CHMN STAFFORD: Okay. And then everything the examiner does is -- can be reviewed by the council or --

MR. CASTRO: If there is an appeal of the zoning examiner's decision, it can be appealed to mayor and council.

CHMN STAFFORD: Okay. And so currently is there -- does TEP have -- have they requested a special exception for any portion of this route yet?

MR. CASTRO: We have not received an application yet.

CHMN STAFFORD: Right. Because they haven't got a route selected, a final route selection. At which point they would make the application for a special exception.

I guess one of the factors we need to look at, though, is if we choose the route with the expectation that they will receive a special exception, what happens if that's denied from the City?

So that's one of the issues.

Now, I don't think we can -- I don't think it's appropriate to drag all the City decision-makers in and try to get them to tell us what they're going to -- how they're going to, you know, judge a case that hasn't been -- an application that hasn't been filed yet.

But I think that -- you know, I think we can certainly gain some insight from the City's current witness about what -- how the process works and what the

likelihood of success of TEP would be for one of these special exceptions.

MEMBER GOLD: In that case I can go to my second question.

CHMN STAFFORD: All right. Okay.

MEMBER GOLD: In that case -- first of all, I have a recommendation, that for the sake of getting this thing done in a timely fashion, which is important to you, I would have some of those principals present while we're discussing the whole thing so they don't walk into this and then need to learn everything that we're already discussing here. I mean, that's why the corporation council has us reviewing this before them to make it simpler and go more smoothly. So it's still just my recommendation.

MR. LUSK: I sure appreciate that.

MEMBER GOLD: Now my question for Mr. Castro then would be what's the City of Tucson's preference?

Do you have a preference of putting power lines in commercial areas that are sensitive or putting power lines in residential areas that are sensitive, including historic districts?

What is the City of Tucson's presence -- preference as a city planner?

MR. CASTRO: I can't -- I can't say for certain representing the City.

What we are concerned about or what we want to make sure is that whatever route is chosen if it's a Gateway Corridor Zone or a Scenic Corridor Zone, that those criteria are followed, that those standards are followed.

MEMBER GOLD: Okay. I read ahead. I'm looking at your requirements, and I see a whole slew of them that apply. So I go back to my original question.

Residential areas, voters more important than commercial areas who also vote?

But you have a lot of residential areas that can be impacted on some of these routes, and these people have homes that this would impact visually.

MR. LUSK: Member Gold, just real quickly. You said you read ahead.

Are you referring to the current slide?

MEMBER GOLD: Yes.

MR. LUSK: So may I clarify with Mr. Castro just briefly?

MEMBER GOLD: Yes, please.

BY MR. LUSK:

Q. Mr. Castro, these are not requirements of the GCZ; correct?

A. Correct.

Q. They are factors to be considered for granting of a special exception?

A. That is correct. That is correct.

Q. Thank you.

MEMBER GOLD: So these factors are there for granting some type of relief?

MR. LUSK: From the Gateway Corridor Zone, that's correct.

MEMBER GOLD: Yes.

MR. LUSK: The undergrounding requirement. Sorry.

MEMBER GOLD: So right now we're sitting here saying what's the best route that does, number one, can be accomplish by a certain date? What's the best route that is reasonable in price? What's the best route that is feasible? And what's the best route that has the least impact on residents who are living in the City and who vote for the city leadership?

So I'm asking what is the City's preference?

Does it come to putting power lines in commercial areas, or do they prefer putting power lines in residential areas?

I mean, it's a simple question.

I have a preference.

I'm asking if Mr. Castro has a preference or perhaps if you have a preference.

MR. LUSK: And I would answer, Member Gold, that neither Mr. Castro nor I can speak for the leadership of the City.

And I think Mr. Castro has suggested that the preference is not any particular route, but that each route could --

MEMBER GOLD: Why my question, Mr. Lusk.

MR. LUSK: Sure.

MEMBER GOLD: My question was do you prefer putting power lines in residential areas or commercial areas?

One or the other because that's going to be your choice or our choice.

MR. LUSK: Are you asking Mr. Castro in his personal capacity?

MEMBER GOLD: Yes.

MR. LUSK: He can give an opinion. I don't know that that represents the City.

MR. CASTRO: Well, my opinion would be, of course, done on the commercial route.

MEMBER GOLD: That's what I asked. Thank you so much, Mr. Castro. That's what I was looking for.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Okay. But I think Mr. Lusk's point was that that's his representation. That doesn't -- that's not representative of what the mayor and city council think.

MEMBER GOLD: But he's a city planner.

CHMN STAFFORD: Right. But he's --

MEMBER GOLD: The mayor and city council appoint him.

CHMN STAFFORD: But he's not the sole decision-maker.

MEMBER GOLD: Right.

CHMN STAFFORD: So his preference doesn't set the policy for everything.

MEMBER GOLD: Understood.

CHMN STAFFORD: Okay.

MEMBER GOLD: Which is the reason why I said can we have one of the examiner's representatives here.

MR. LUSK: The zoning examiner doesn't represent the mayor and council either. They are a separate body.

MEMBER GOLD: Then what about the city manager?

MR. LUSK: Again, the city manager would --

MEMBER GOLD: He appoints him.

MR. LUSK: No, no. The mayor and council are representatives of the City of Tucson, and so they are voted by the people of the City of Tucson.

MEMBER GOLD: Okay. In the military we call it an organization chart. And that lists -- in the military we call an organization chart something that lists who works for whom, who's responsible for whom.

The boss can tell his subordinates what he wants done. They can make recommendations, but he tells them what he wants done.

I would like -- no, what I'm trying to ask for, is Mr. Castro, your boss is whom?

MR. CASTRO: My boss is the planning and development services director.

MEMBER GOLD: Perfect.

And who is his boss?

MR. CASTRO: That would be the city manager.

MEMBER GOLD: That's what I --

MR. LUSK: I believe it's "her" boss. Is that correct, Mr. Castro?

MR. CASTRO: I'm sorry?

MR. LUSK: I believe it's "her" boss; is that correct?

MEMBER GOLD: Oh, his or her. I'm old school. His occurs in everything. And I apologize if I offend anybody. It's not intended.

MR. LUSK: Sure.

MEMBER GOLD: So the city manager, is he elected or appointed in the City of Tucson?

MR. LUSK: He's appointed by the mayor and council.

MEMBER GOLD: So the mayor and council are all elected?

MR. LUSK: That is correct.

MEMBER GOLD: They appoint a city manager who's the professional?

MR. LUSK: That is correct as well.

MEMBER GOLD: The city manager is then ultimately your direct -- in your line. He's two levels above you, but he's your boss?

MR. CASTRO: That's accurate.

MEMBER GOLD: Okay. And you actually know him and speak to him?

MR. CASTRO: No. I know who he is, but I don't speak to him on a daily basis.

MEMBER GOLD: Okay. So my question to Mr. Lusk is, the individual who does work for him or his staff, why aren't they present?

MR. LUSK: I don't believe they're necessary for this proceeding, Member Gold. I understand what -- I do understand your point.

The mayor -- the manager does not make the determination that the zoning examiner would make. They're independent of the manager.

Although they're appointed by the manager, they may make a contradictory finding based on the evidence presented to them within the public hearing. And I'm not required to follow any dictate of the manager.

The zoning examiner makes an independent determination based on the public hearing and the proceedings before him.

MEMBER GOLD: And he's appointed at the pleasure of the city manager; is that correct?

MR. LUSK: He is. Yes.

MEMBER GOLD: And he can fire him if he doesn't make a decision he likes?

I mean, I've seen this numerous times.

MR. LUSK: He could.

MEMBER GOLD: But that's not the point.

I'm trying to say we'd like this project finished for your sake, for the City of Tucson, that happen to live here --

MR. LUSK: Sure.

MEMBER GOLD: -- by 2027 because we established previously that we could have serious implications by then if we don't have sufficient current.

What I'm trying to say is for the sake of efficiency to get this thing on the road and working, this is a project that you need, you want. We wouldn't be here if the City of Tucson didn't say they needed more power.

Your experts, Tucson Electric Power, said that the system right now is pretty much archaic and may not function in 2027 if there's any serious situation, which we see happening almost on a daily basis.

So what I'm saying is for the sake of efficiency it would make it easier for you to accomplish your goal of having the power when you need it in your city if we had people who are in the chain of command for this to happen present while we're doing this.

If not, great, you and I can agree on something. And we'll make a recommendation to the corporation council. And then the whole system has to start again with the next level who's starting from ground zero. And all this takes time.

Again, I'm not telling you what to do. I am not in your chain of command, and you certainly aren't

in mine.

MR. LUSK: Uh-huh.

MEMBER GOLD: All I'm saying, for the sake of efficiency, shouldn't you have more people involved?

MR. LUSK: If I can clarify with Mr. Castro.

CHMN STAFFORD: Yes.

BY MR. LUSK:

Q. Mr. Castro, the special exception process, can you describe briefly how long that process takes from application?

Obviously the application preparation is on the party.

A. So it really does depend on the zoning examiner's hearing schedule, but it could take maybe three months.

Q. From start to end?

A. Yes.

Q. Start to decision?

A. Right.

That's including the neighborhood meeting that's required, pre-application conference, all those -- those steps that are involved prior to submitting an application.

And then, of course, we have the public comment

period. And then there's proper notification before a public hearing.

So, you know, including all those factors, and then going with the zoning examiner's schedule, yeah, that can be about three months.

Q. And the applicant can provide an application for a special exception process at any point prior to the construction; is that right?

A. That's correct.

Q. So they could do that tomorrow, they could do that today?

A. Correct. As long as it's complete.

Q. Okay. And there are specific -- there are specific requirements as to what the application should contain; is that right?

A. Yes.

Q. And I'm guessing those include enough detail within the project area for a special exception -- the special exception process to be fruitful for the zoning examiner to understand exactly what's being done?

A. Sure. There is -- there is an application. I'm not sure of what all the requirements are. I should clarify the special exception is handled through our entitlements section of planning and development services department, which I'm not a part of.

But I do believe that they have a robust application where you do need to provide certain information. And the pre-application meeting prior to submitting the application lets the applicant know exactly what they need to include in their application, so they are well aware of that.

Q. Fair to say just a couple things, a site plan and a specific route would be required?

A. Yes.

CHMN STAFFORD: Member Hill, you had a question?

MEMBER HILL: Yeah. My question is for you, Mr. Chair, as the newest member of this Committee.

Member Gold made light of this dichotomy that I feel like I'm kind of stuck in, whether or not we choose a route that goes through a lot of residential areas and has residential impacts or whether or not we choose a route that goes through a commercial area and has commercial impacts. And this has been my struggle looking at the routes and hearing from a lot of the parties.

My question to you is do we have to choose one route, or could we choose maybe two, the least impactful residential and the least impactful commercial and then let the parties figure out which one they want

to use as long as we're okay with both of them?

So my question is, like, do we have to choose one route, or can we choose a couple of routes that we're comfortable with?

CHMN STAFFORD: Well, I think we could choose -- I think we should probably choose one main route and then an alternative route.

And I think best, you know, before we -- once we get through all the evidence and before we start, you know, deliberating what the CEC is going to look like I think there's some -- a number of issues we'll need to talk there and such as, you know, do we want to approve one route, do we want to approve one route with an alternative?

Is there going to be -- could it be just a lettered -- approve one lettered section and then, you know, one numbered with an alternate number or vice versa?

I mean, there's different ways to approach this, and it's going to depend on, you know, what we -- what the evidence we hear from all the parties.

We still have, you know, quite a ways to go with the City of Tucson. We still have Underground Arizona to present their direct case. And then I think we're going to have to end up calling back the applicant

as we're, you know, talking through the issues to get factual questions on what -- on what technicals -- technical information about the line and placement of it and things like that.

So I -- I think, yes, we can pick more than one route, but I think we shouldn't pick so many as to be -- provide no really direction or -- for example, if we approved --

MEMBER HILL: So if we pick two --

CHMN STAFFORD: -- if we approved all of the alternatives, that would -- we wouldn't really provide much direction or help to the applicant or the City I think.

MEMBER HILL: I'm not suggesting we choose all the alternatives.

CHMN STAFFORD: Right.

MEMBER HILL: And there's a lot of alternatives.

CHMN STAFFORD: Right.

So I think we'll need to narrow it down to one main route with one possible backup of a segment or, you know, maybe both segments.

I don't -- we'll just have to talk about -- once we get -- hear the rest of the evidence, we could -- we'll be in a better position to make a judgment on what

that should look like. But I think I see --

MEMBER HILL: I think that's helpful as I hear the rest of the evidence that we don't have -- we don't -- I'm struggling with just one route, to be honest.

I'm feeling more comfortable with the ability to choose two and then let the parties work through that is just what I want to suggest.

CHMN STAFFORD: Ms. Hill.

MS. HILL: Yeah. Mr. Chair, Member Hill, so I just wanted to clarify and remind the Committee that we chose a preferred route. We are -- we will build any of them. We are here to explain why we chose our preferred route.

However, if the Committee chooses a route, Routes 1, D, 5, or 6, and we've talked about 5 and 6 in terms of the railroad, and then, of course, 1 and D that we also -- that we ask that you also choose an alternative if you choose any combination of those specifically because of the level of uncertainty that you're hearing right now, and we need to get the line built, so --

CHMN STAFFORD: Okay.

MEMBER KRYDER: Mr. Chairman.

MEMBER HILL: Thank you for indulging me on

procedural questions.

CHMN STAFFORD: No problem, Member Hill.

Member Kryder.

MEMBER KRYDER: Okay. To follow up on that -- and I think that was a great discussion. That was certainly insightful for me. I'm not sure whether this should go to you --

MR. LUSK: Mr. Lusk.

MEMBER KRYDER: -- or to Mr. Castro.

But if there is an exception requested by the applicant, does it have to be for a single route, or can they say we'll take A or we'll -- I'm not going to use A and B -- M and N? We can live with M, we can live with N.

But as I heard the scenario, they need to file a process. It's a three-month process that Mr. Castro described.

But I heard that it had to be a single route. Correct me if I'm wrong on that.

MR. CASTRO: Member Kryder and Members of the Committee, Mr. Chairman, so there should be a preferred route, one route before going to the zoning examiner -- before applying for the zoning examiner.

CHMN STAFFORD: Okay. So it sounds like the applicant, TEP, would have one route that they would

take to the examiner to request the exception. And but they, I guess, we could -- the Committee could grant them an alternative, and I guess they would -- they could seek they could file their application for that or -- well, let's -- I think we're getting ahead of ourselves here.

Because I think the thing is let's try to focus on one route. And then as we get closer to that, we may have, okay, we'll have an alternative.

Because specifically there's certain segments if we do choose, the applicant specifically requests an alternative because there's issues with it. And off the top of my head 5 and 6 require something from the railroad, which may or may not be able to be acquired. So if we pick either one of those, we have to have another numbered segment because that one may not be achievable at all. And it has nothing to do with the City either.

So, I mean, it's -- but if we don't pick 5 or 6, then, you know, depending on what route we pick we may not need an alternative.

So I think that -- so I think that we know we kind of -- we're getting a little ahead of ourselves on all the possibilities. We just kind of need to get the -- let's get through the testimony of the City and hear what -- how the process kind of would work.

And then because they're not going to -- because they're not prepared to make a judgment call where they would grant the exceptions today. They have to have an actual route and application. But these are the factors that they'll look at and they'll consider.

So, you know, in choosing the route, it's good that we're aware of these so we can -- you know, we can think -- well, to us it seems like that's a likely outcome because of, you know, the way that the -- these factors would play into it.

But we have to -- we have to make our decision based on the factors in the statute.

But it seems like it's going to be -- the City can't -- they can't today commit that, oh, they're going to grant the exception.

MEMBER KRYDER: Understood. Understood. And that is also very helpful, Mr. Chairman.

The concern I had was the clock is ticking. We spoke about the process on a good day or on a good three months would take three months.

So please fill in the blank for me, so if route M was chosen, whatever that might be, and the applicant went ahead and came to the City, we'd like to take route M, and you take it through the three-month process, and at the end of the time they say that dog

don't hunt.

Okay. Let's try N then. Does that give us another three months?

I mean, is this a perpetual downhill ride on the -- on the sled? That's what I was looking at.

So help me. I'm trying to hold the calendar back as much as I can because 2027 is right up the street.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: One second, Member Little. Member Kryder has posed a question to the witness.

Mr. Castro, I believe the question is that say if the applicant requests an exception to -- requests relief from the GCZ and it's denied, they could submit another application for a different route, and it would be another three-month process; correct?

MR. CASTRO: That's correct, Mr. Chair.

CHMN STAFFORD: Okay.

MEMBER HILL: Is that the follow-up?

CHMN STAFFORD: That was your question, right, Member Kryder?

MEMBER KRYDER: Yes.

MEMBER HILL: As a follow-up to that, the member could submit two applications at the same time, one for each route, and hold a hearing on both, and there

would be no time lost?

MR. CASTRO: I can't speak on behalf of the entitlement section, how they would -- if they would accept that. But that is a great question.

I don't know if that is a possibility, but that's a great question that I don't have the answer for.

CHMN STAFFORD: All right. Could you potentially follow up? I mean, is it -- just to know -- I guess the question is is it possible for TEP to submit two different special exceptions simultaneously and have them both evaluated at the same time knowing that one will -- if one is granted, the other one's moot?

MR. LUSK: Okay. If I could, Chairman, Member Kryder.

BY MR. LUSK:

Q. Mr. Castro, your understanding of the code does not prohibit that; is that correct?

A. That's correct.

Q. Thank you.

CHMN STAFFORD: Okay. There. Thank you. There's our answer.

MEMBER KRYDER: That's very helpful.

MR. LUSK: Sure.

MEMBER LITTLE: Mr. Chairman.

MEMBER HILL: Member Little --

CHMN STAFFORD: Oh, yes, Member Little.

MEMBER LITTLE: Excuse me. Along those same lines, regardless of which route is chosen, TEP will be -- will need to ask for an exception for the streets where the line will be crossing perpendicular to those streets.

CHMN STAFFORD: Correct. And that includes the preferred route.

MEMBER LITTLE: Correct.

CHMN STAFFORD: Right.

MEMBER LITTLE: And so it sounds like, you know, this process is going to need to be gone through under any -- regardless of which route is chosen.

CHMN STAFFORD: Well, that's not entirely the case. I mean, the applicant has also requested that the Committee make a finding that the Gateway Corridor Zone is unduly restrictive and has asked the Committee to make the specific finding to issue a CEC notwithstanding that requirement. That is also the relief that's requested by the applicant. And we haven't even really gotten to discussion of that yet. But that that is --

MEMBER LITTLE: Okay. Because I would like some legal information with regard to that statement.

But if the -- if TEP does go to the City for an exception for any part of this regardless of

whether it's the perpendicular crossing or whether it is any of the other exceptions, it is good to know that they can file several different requests for exceptions concurrently because I would guess that probably the City is going to want each perpendicular crossing on a separate -- a separate application.

CHMN STAFFORD: Well, it's --

MEMBER LITTLE: In any event.

CHMN STAFFORD: They said the code doesn't prohibit that.

Whether I guess the examiner would allow that is still up in the air, correct, Mr. Castro?

MR. CASTRO: That is correct, Mr. Chair.

CHMN STAFFORD: Right. There's not a direct prohibition on, but whether it would be permitted is still nebulous.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: But I think I believe Mr. Castro or Mr. Lusk was going to -- at some break they could attempt to follow up on and find -- I guess has it been allowed in the past?

Is it something that they do consider, or is it the policy not to do that even though it's not necessarily prohibited by the code?

MR. LUSK: We can follow up on that, Chair.

CHMN STAFFORD: All right. Thank you.

All right. Please continue.

BY MR. LUSK:

Q. Let me see if I can remember where we were.

I believe, Mr. Castro, you were discussing factor D related to perpendicular crossings in the gateway?

A. Okay. So in order to use the special exception process in the Gateway Corridor Zone, as we discussed prior, there are several criteria that the request needs to make.

And so Item D talks about that there should be relief -- the relief is requested for a segment that perpendicularly crosses a Gateway Corridor Zone or a Scenic Corridor Zone.

And then Item E, for repair or upgrade of existing facilities similar in size and scale to the existing facilities being repaired or replaced.

Q. Mr. Castro, I'm just going to stop you briefly. I believe that addresses Member Little's question from earlier; is that right?

A. That is correct.

Q. Thank you. Please proceed.

A. Item F, the transmission lines are proposed in an area where there is an existing presence of railroad,

highway, and/or bridge crossings or in an area where underground installation would interfere with other existing undergrounded utilities.

Item G, that the proposed transmission lines will provide electrical service to critical customers where overhead lines are strongly recommended for specialized operations.

Item H, in an area where costs to install underground would have a disparate impact on low-income residents.

All these items, the ZE, the zoning examiner, shall identify each specific criterion that relates to the application or project and which are met.

Approval of a zoning examiner special exception will not preclude any other necessary regulatory relief process such as a variance.

Q. Thank you, Mr. Castro.

MEMBER HILL: So just a point of clarification --

MR. LUSK: Sure.

MEMBER HILL: -- because of how the previous conversation started.

A zoning examiner has to look at all of these criteria, not just one being minimal impacts on residential areas, but he has to -- he or she has to look

at all of these criteria in issuing and making a decision.

Is that correct, Mr. Castro?

MR. CASTRO: Member Hill, Mr. Chair, Members of the Committee, so in order to use the special exception process, the zoning examiner is reviewing the application, and in order for the application to qualify, it needs to meet one or more of these findings.

So he's going to go through all of these items here and see which ones are applicable to the request or to the application.

MEMBER HILL: Thank you.

MEMBER RICHINS: Chairman. Chairman, hello.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: I don't know if you can hear this or not.

CHMN STAFFORD: Your microphone is not on? Hang on. Try it now.

MEMBER RICHINS: Testing. Testing. Thank you.

CHMN STAFFORD: There you go.

MEMBER RICHINS: So the decision is -- on this application the decision would solely rest on the zoning examiner for --

MR. CASTRO: That's correct.

MEMBER RICHINS: And how do politics play in that decision?

I mean, do they get lobbied?

Do they get pressure from council members or the mayor, management?

Can you describe that, please?

MR. CASTRO: So this is a public process. Zoning examiner is a public process. So there is public outreach. There's public involvement in the way of a neighborhood meeting that's required prior to the zoning examiner's hearing. And then there's the zoning examiner hearing itself, which is a public hearing.

MEMBER RICHINS: Okay. Sorry if we've gone over this ground before. I was a little late. I apologize to the Committee.

MR. CASTRO: That's okay.

BY MR. LUSK:

Q. Mr. Castro, can I follow up just a little bit on that?

The zoning examiner operates independently of the mayor and council; is that correct?

A. That is correct.

Q. And even could and might operate independently of the city manager; is that correct?

A. That's correct.

Q. And during their deliberation process -- now, we've already talked about several of the factors that they consider -- there are specific findings that have to be made in writing I assume by the zoning examiner in order to proceed on a special exception process?

A. Yes. That is correct.

Q. Thank you.

Are there other ways to get relief from the underground requirement from the Gateway Corridor Zone?

A. There is. It's the board of adjustment variance process. This is under UDC Section 3.10.1. This variance process allows to seek relief from the UDC provisions through the board of adjustment. There's also it includes a review by the design review board and the public hearing.

The board of adjustment variance process consists of a pre-application conference, a neighborhood meeting, an application, design review board review, a public hearing, and then the board of adjustment decision.

Q. And the board of adjustment is an independent body of the City?

A. That is correct. There are seven members, and they are appointed by their respected ward offices.

Q. Okay. Can you -- I believe the applicant has actually participated in the variance process prior to this hearing; is that correct?

A. That is correct. There was the Silverbell request. This was done back in 2021. Silverbell, as we mentioned earlier, is in the Scenic Corridor Zone which requires that all transmission lines be undergrounded.

In this scenario, the applicant, TEP, had good -- good arguments for requesting to leave the power -- power transmission lines aboveground. What they presented was the -- that there were some cultural, archaeological sensitive areas within the route. There were also some washes that crossed Silverbell, so that would have an impact on any underground facilities.

So it was in -- the board of adjustment found that there was reasonable physical circumstances and that what they were asking for was the minimum necessary to afford relief, and so that variance request was granted.

Q. And you said that was in 2021?

A. That is correct.

Q. And that process is available also for the Gateway Corridor Zone as well?

A. Yes, it is.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: How long did that process take?

MR. CASTRO: This particular process, it was continued several times through the DRB. I think it was continued twice during DRB and then --

CHMN STAFFORD: DRB, what is that? Oh, design --

MR. CASTRO: I'm sorry. Design review board. So that was the design review board continued the case twice, board of adjustment hearing.

So, you know, it was over three months. I would have to say it was over three months for that particular case.

But typically board of adjustment variance cases are, again, the same time line as special exceptions. They run about three months.

BY MR. LUSK:

Q. Mr. Castro, and just for clarity, I know we discussed in this hearing a prior application for this particular project back in 2021.

Was that variance process available at that time?

A. Yes, it was.

MEMBER KRYDER: Mr. Castro or Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: You said that the variance process I thought I heard you say it was over three months.

Would that be over three months but under a year or under six months or --

MR. CASTRO: Under six months.

MEMBER KRYDER: Okay. Thank you.

So just for my clarification again, it is possible that the applicant could make two applications for not a variance but for the review at the same time; is that correct?

MR. LUSK: I believe the testimony was that the code does not prohibit that, yes.

MEMBER KRYDER: It did not prohibit it.

Okay. And this as an alternative to that, could that be begun at the same time?

I mean, can we look at three different opportunities, three different pathways to take a look at --

CHMN STAFFORD: Do you mean --

MEMBER KRYDER: Somehow I'm trying to look at this 2027 and the fact that the City of Tucson appears to need a bunch of power.

MR. LUSK: Sure.

CHMN STAFFORD: I guess, Member Kryder, I

mean, are you asking could they seek a special exception and a variance concurrently?

MEMBER KRYDER: Yes. Thank you. You're a good attorney.

MR. LUSK: My understanding is they could and they could have received -- they could have requested a variance in 2021.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: Mr. Lusk, you just said that this thing started in 2021.

MR. LUSK: The previous application was in 2021.

MEMBER GOLD: For the same power; correct?

CHMN STAFFORD: Not entirely. Let me --

MR. LUSK: Please.

CHMN STAFFORD: Member Gold, Tucson Electric Power filed a line siting application in a prior case for this same project but with different routes. The routes that we have today were not the ones proposed in that case.

I think there was some overlap, some of the segments are the same, but they ended up withdrawing the application and then re-filing this one. And that one never went to hearing.

There was a -- they had some -- they started, but they were trying to work something out with the City, and I think there was a -- I think they've already previously testified that the franchise amendment failed, so that kind of that necessitated the TEP to file a new application with the amended routes.

And I think they proposed a significant amount -- significantly many more segments this time than they did previously.

MEMBER GOLD: So if I understand that correctly, Mr. Chairman -- again, I wasn't on the Committee in 2021.

CHMN STAFFORD: Nor was I.

MEMBER GOLD: So this is something that started -- '21, '22, '23, '24 -- four years ago when the suspense date was seven years away. Now we're four years later the suspense date -- the suspense completion date -- forgive me for using terminology you may not be familiar. The completion date is now three years away.

Have you and TEP discussed which routes you may prefer?

Or going back to my original question to Mr. Castro, do you prefer routes through residential areas or commercial areas?

Has this been discussed with -- between

Tucson and TEP prior to them filing this latest application?

MR. LUSK: If I can answer appropriately, Member Gold.

I wasn't a direct part of those negotiations during that process.

I can only say that the eventual determination was to attempt to pursue the franchise agreement route prior to this application. That did fail, as the Chairman suggested, and now we're here.

As far as these -- what these -- these relief processes are, I was simply suggesting with Mr. Castro that these relief processes -- at least one of these relief processes has been available in the prior years.

MEMBER GOLD: I understand what you're saying, but it doesn't really answer my question. Now you're part of it, so the ball is in your court.

Have you coordinated with TEP to make this process go smoother and given them guidance as to what you prefer, commercial or residential routing?

MR. LUSK: We have through both individual negotiations and through litigation exerted our position to TEP that we don't have a preference for the route. We have a preference that they follow our code.

MEMBER GOLD: Well, that doesn't really help the situation.

Now I'm looking at a situation where I know what Banner University's preference is. She's made that very clear.

The City of Tucson has not done due diligence, in any opinion, for a project that you need, which means I understand bureaucracy and I understand necessity.

Just an example, in the military if you are in a wartime situation and a company commander at the company level on the frontline facing an enemy force requests artillery from a division which can be three or four levels above his command, the request doesn't go through every level for approval. It simply says if you disapprove, you interrupt. If not, you let the request go directly to the artillery so that they can get the mission accomplished in a timely fashion.

I'm asking at this point in time have you done that with Tucson Electric Power?

I realize you're apparently new in the position also. You're not new in the position.

CHMN STAFFORD: I guess no -- I mean, he's a city attorney, so he's -- he has --

MR. LUSK: Well, let me clarify that.

CHMN STAFFORD: Oh.

MR. LUSK: I am not the city attorney.

CHMN STAFFORD: Oh, you're an employee of the city?

MR. LUSK: I'm employed by the city attorney.

CHMN STAFFORD: And you're an attorney?

MR. LUSK: Okay. Correct.

CHMN STAFFORD: Okay. But you're not the city attorney?

MR. LUSK: Yes.

CHMN STAFFORD: Yes. I said "a" city attorney, not "the" city attorney.

MR. LUSK: Thank you.

CHMN STAFFORD: So but, yeah, so he's not -- up until now I don't think he's been really substantially involved in the negotiations, so I think you're probably better to address your questions to the witness as opposed to the lawyer.

MEMBER GOLD: Thank you, Mr. Chairman.

CHMN STAFFORD: But I think we're coming up on 90 minutes, and I think the court reporter is ready for a break.

But, yeah, if you want to -- I think we're kind of getting sidetracked by what happened in the past.

There's been negotiations between the City and the utility that have broken down. They couldn't agree on a route. The City wants to see it undergrounded. The company thinks it costs too much.

And so now we're here to kind of -- to try to figure out what -- where the line should go.

And then once we make our decision, it will go to the Corporation Commission.

And then, you know, if the City and the utility can work things out, then great. Otherwise, they'll have to settle their dispute in potentially a different venue.

Because I think we've already -- as for an example, the applicability of the Gateway Corridor Zone was recently adjudicated in superior court. I guess we'll have to see if that gets appealed, or I guess it could depend on the result of this proceeding.

But I think we're getting a little bit ahead of ourselves.

But I think we're ready for a brief recess. Let's take a 15-minute break. We stand in recess.

(Recess from 10:23 a.m. to 10:45 a.m.)

CHMN STAFFORD: Let's go back on the record.

Mr. Lusk, please continue.

MR. LUSK: Thank you, Mr. Chair.

BY MR. LUSK:

Q. Before we jump on our discussion of area plans and PADs, Mr. Castro, there was a discussion earlier about whether a special exception process application could be filed for multiple areas at a time. Is that your understanding -- is that available?

A. Okay. So it is available. It is possible to do that.

Q. All right. Thank you, Mr. Castro.

There was a question, I believe it was yesterday from one of the members, about the difference between an area plan and a planned area of development. Can you discuss that briefly, please?

A. Sure. Area plans are the -- neighborhood plans are specific plans meant to implement general plan policies on a more localized level. These plans contain detailed policies related to land use, future development, transportation.

MEMBER KRYDER: Into your microphone just a little more, please.

MR. CASTRO: Okay. Sorry.

These plans contain detailed policies related to land use, future development, transportation and connectivity, open space, and other topics that are

adopted separately from the general plan.

A PAD is essentially just another zoning, like an R-1, R-2, R-3, but it allows greater flexibility in uses and development than the standard zones.

PADs are generally a zone that the applicant -- it's like a customized zone. It's got different development standards than there would be in the other zoning standards. So that's why a lot of applicants prefer to use a PAD -- PAD zoning than a typical underlying based zone like R-1, R-2, R-3.

BY MR. LUSK:

Q. And a PAD might include something like a hospital or a mall or something like that?

A. That's correct.

Q. All right. Thank you, Mr. Castro.

MR. LUSK: I don't have any further questions for this witness at this time.

CHMN STAFFORD: Are you going to cover your exhibits?

MR. LUSK: Yes. If we can, I believe we submitted Exhibits 1 through 7 -- or excuse me -- 1 through 8, including Mr. Castro's testimony.

In addition, the City would like to reserve the right to admit two additional exhibits. We have some exhibits coming from City leadership that they would like

to submit either today or tomorrow.

CHMN STAFFORD: Does that sound fine to all the parties?

MS. HILL: We would just like to see them.

CHMN STAFFORD: Yes. Okay. All right. So your exhibit COT-1, the Sargent & Lundy underground cost analysis report.

MR. LUSK: Correct. That was discussed with Mr. Jocham.

CHMN STAFFORD: Right. And which version of that is this one? I seem to recall there were several different version talked about. Which one is this?

MR. LUSK: This is Revision 4.

CHMN STAFFORD: Okay. Is that the latest one or --

MR. LUSK: It is not. Well, I guess the final version is the latest one. There are seven revisions and then the final. Revision 4 comes from the prior application.

CHMN STAFFORD: Oh, so it's, you said it's Revision 4 of 7.

MR. LUSK: Correct. Of 8, I believe.

CHMN STAFFORD: Of 8.

MR. LUSK: Sorry.

CHMN STAFFORD: And then COT-3, the City of

Tucson Major Streets and Routes Plan.

MR. LUSK: That's correct.

CHMN STAFFORD: What is that? Why is that an exhibit?

MR. LUSK: That was what Mr. Castro described in his testimony as -- it's the basis for the Gateway Corridor Zone.

CHMN STAFFORD: Okay. And that is a part of the UDC?

MR. LUSK: It is not part of the UDC. It is a streets and routes plan similar to the general and specific plans we've discussed.

CHMN STAFFORD: Okay. So that's in addition to the UDC, but it's the Major Streets and Routes Plan that contains the Gateway Corridor Zone?

MR. LUSK: That's correct.

CHMN STAFFORD: Okay. And then Exhibit 4, that was the Prop 412, that was the franchise proposal that was voted down.

MR. LUSK: That's correct. That was at the Committee's request we submitted that exhibit, yes.

CHMN STAFFORD: Okay. And is your witness prepared to answer some questions about the Proposition 412?

MR. LUSK: I don't believe Mr. Castro is

the correct witness to do that. If there are questions, we can provide additional information if necessary.

CHMN STAFFORD: Okay. All right. And then Exhibit COT-6 is just a link to the City of Tucson general plan and sustainability plan?

MR. LUSK: Correct. I believe that was in response to Member Richins' question about the general plan.

CHMN STAFFORD: Okay. And then Exhibit 7 was the superior court ruling.

MR. LUSK: Correct. And that was also in response to the Chairman's request.

CHMN STAFFORD: I guess, could you answer some questions about that?

MR. LUSK: If the Committee wishes I can.

CHMN STAFFORD: Legal questions, not --

MR. LUSK: Sure.

CHMN STAFFORD: -- facts of it. So I guess --

MEMBER RICHINS: Chairman, I had one question for the witness before -- are we ready to dismiss the witness?

CHMN STAFFORD: No, not yet.

MEMBER RICHINS: Okay.

CHMN STAFFORD: I'm trying to -- I'm going

through the exhibits here, and I want to just go ahead and ask Mr. Lusk a couple questions about the actual superior court ruling, and I was going to open up the witness for questioning from the members.

MEMBER LITTLE: Mr. Chairman, I have a question about the exhibits.

CHMN STAFFORD: All right. One second. I'm about to ask about the superior court case, and then I will turn it over to members starting with you, Member Little.

All right. So the issue in the superior court case was just the Gateway Corridor Zone; correct?

MR. LUSK: That's correct, yes.

CHMN STAFFORD: And so the sole issue decided was that the Gateway Corridor Zone applies to the project, and that superior court said that the TEP had to comply with that and underground in the zones and underground where it crosses perpendicularly unless it qualified for a special exception or a variance; correct?

MR. LUSK: My recollection, Mr. Chair, is that the perpendicular crossings weren't at issue. The main issue was whether or not anywhere in the Gateway Corridor Zone the applicant would have to underground under our current code.

CHMN STAFFORD: Okay. And I'm looking to

Ms. Hill and Ms. Grabel, that is also your understanding of what the superior court decision means?

MS. HILL: So, Mr. Chair, so first of all I want to be very clear that the company has not yet decided whether it's going to exercise its appellate rights here.

And so just keeping that mind in, we still have several weeks before -- two weeks, two and a half before we have to make that decision.

So we have not yet determined that. So what it does do, though, is it does make a finding of fact that this project is not an upgrade as contemplated in UDC, and that it applies for a variety of reasons.

Rather than having our -- I believe there's some possibility Mr. Lusk and the company will disagree on nuances of it. And so I'm going to say that the Committee members are welcome to read it. It's an exhibit. But generally we agree that this ruling was in the City's favor, yes.

CHMN STAFFORD: Okay. All right. Member Little, you had a question and then Member Richins, you had questions. Okay.

MEMBER LITTLE: My question is just if and when the remaining exhibits from the City of Tucson numbers 4 through 8 will be filed in the docket, because

I don't have copies of them.

MR. LUSK: If I may, Member Little, we apologize for that. There's sort of a slight difficulty that actually we were talking with the other intervenors in that we're in Tucson and we file them in Tucson and they take a little bit of time to get up to Phoenix.

We can provide those -- I thought they were e-mailed to the Committee and the chair, but I'll verify that and get those to you today.

CHMN STAFFORD: Did you send them to Tod?

MR. LUSK: I think we did but I'll have to verify that.

MEMBER LITTLE: I checked about 30 or 45 minutes ago and I did not have any e-mail from him. But it could have come through since then.

CHMN STAFFORD: We'll follow up and make sure you get them, because there's a total of eight exhibits. Make sure you have all of them.

MR. LUSK: And Mr. Chair, Member Little, Ms. Hill has graciously agreed that they will e-mail them as well because they have access to them.

CHMN STAFFORD: Excellent. Problem solved.

MEMBER LITTLE: Thank you.

MR. LUSK: Thank you.

CHMN STAFFORD: All right. Member Richins.

MEMBER RICHINS: Just a couple questions for Mr. Castro.

Is the GCZ, I think we call it, is that an area or neighborhood plan?

MR. CASTRO: Mr. Richins and Mr. Chair, members of the Committee, so the GCZ is an overlay zone. It is not an area or a neighborhood plan.

MEMBER RICHINS: And could you again describe how that was approved?

MR. CASTRO: So the how the -- is your question is how is the GCZ approved?

MEMBER RICHINS: Yes, sir.

MR. CASTRO: Okay. So the GCZ is part of the MS&R plan. The MS&R map identifies which corridors are -- lie within the GCZ.

If that corridor lies within the GCZ, then it translates over to the UDC. The UDC has the standards that apply to the -- anything that's -- any construction in the GCZ. So there are those -- there's standards there. And that's how the GCZ is implemented is through the UDC.

MEMBER RICHINS: And you mentioned another acronym, MSR.

MR. CASTRO: I'm sorry, that's the Major Streets and Routes Plan map.

MEMBER RICHINS: And how is that map approved?

MR. CASTRO: So that map was approved in 1982, that was adopted.

MEMBER RICHINS: By whom?

MR. CASTRO: Mayor and council.

MEMBER RICHINS: And then the UDC?

MR. CASTRO: The UDC was adopted, the current, 2013 I believe.

MEMBER RICHINS: And that's approved by who?

MR. CASTRO: Mayor and council.

MEMBER RICHINS: And the general plan?

MR. CASTRO: That's also mayor and council.

MEMBER RICHINS: Does that -- any of those plans go before the voters for approval?

MR. CASTRO: Yes, they do.

MEMBER RICHINS: Can you describe which ones.

MR. CASTRO: I don't have the specifics, but I don't know if Mr. Lusk --

MR. LUSK: Just to clarify, Member Richins, if I understand your question. The UDC, the general plan, and the MS&R plan are all approved by mayor and council, not by voters.

MEMBER RICHINS: The general plan does not get put to voters? Are you sure?

MR. LUSK: There's some --

MEMBER RICHINS: Because you're wrong. The general plan does go before voters, so --

MR. LUSK: There's an alternative. Sorry. If I may, just to clarify. There's an ultimate approval process for the mayor and council and then it's -- you're correct, it does go before the voters once it's ultimately approved by mayor and council.

MEMBER RICHINS: Okay. So in that clarification, then are any of these other plans put to the voters, or is that part of the general plan approval by voters?

So the UDC, the streets plans, the specific plans, the neighborhood and area plans, those are all approved by council only?

MR. LUSK: So -- so if I can clarify your question just so I understand all of those other plans. Your -- the UDC is a code, so that's approved by mayor and council. The Major Streets and Routes Plan was approved by mayor and council in 1982 and has been amended subsequently by mayor and council.

And then you also mentioned the specific area and neighborhood plans. Those are also approved by

mayor and council.

MEMBER RICHINS: And then the general plan is approved by council and voters?

MR. LUSK: Correct.

MEMBER RICHINS: But that's the only plan that also has both mayor and council and voter approval?

MR. LUSK: As far as I'm aware, yes.

MEMBER RICHINS: Okay. Thank you.

MR. LUSK: We can verify that, though, for you.

MEMBER RICHINS: I think that's sufficient. Thank you.

MR. LUSK: Thank you, Mr. Richins.

CHMN STAFFORD: So I heard you say that the Major Streets and Routes is implemented through the UDC?

MR. LUSK: That's correct.

CHMN STAFFORD: All right. In the application's a number of village neighborhood plans. I guess the issue was that do those -- so do those in themselves have -- are they -- do they require the undergrounding that's part of the -- because the plans provide that the neighborhoods shall pursue things to provide undergrounding utilities.

Does the City have a position on whether these neighborhood plans actually have that effect?

MR. LUSK: If I can ask Mr. Castro.

BY MR. LUSK:

Q. Mr. Castro, can you discuss how the planning and development services department uses specific plans in the processes we've talked about so far?

A. So to be clear, the area and specific plans are applied to rezonings, plan amendments, and special exceptions. That's also stated in the Unified Development Code. When you look at the approval procedures for rezoning, like I said, rezoning plan amendments and special exceptions.

Q. So, and I guess for this particular proceeding, the process we're discussing now is the special exception process.

So the zoning examiner can consider neighborhood and specific plans in granting a special exception?

A. That is correct.

Q. Okay. Thank you.

MR. LUSK: Does that answer your question, Mr. Chair?

CHMN STAFFORD: I think so. I guess -- I should be more specific, I guess. Because like the application, it's flagged a number of potential requirements for undergrounding. And I wanted to find out what the City's position was on them.

So for -- I'm just going to go through the application.

MR. LUSK: Sure.

CHMN STAFFORD: There's a list of, for example, the Broadmoor-Broadway Village Neighborhood Plan. Does that plan require undergrounding of utilities?

MR. LUSK: If I may, Mr. Chair, I don't know if Mr. Castro is able to speak to every neighborhood, because there's 50 neighborhood plans --

MR. CASTRO: Right.

MR. LUSK: -- as to the contents of them.

BY MR. LUSK:

Q. I can only suggest that maybe, Mr. Castro, if you could talk about sort of how the policies of any particular neighborhood plan would be applied in that special exception process. Is it something that's applied in the same way as the Gateway Corridor Zone?

A. So the way this would work is if there is any relief sought through the special exception process in the application, and let's just say we're talking about a crossing, and that crossing happens to be in the Broadway-Broadmoor area plan, planning and development services would review the application for compliance to the goals and policies to the area plans and neighborhood

plans.

That's just part of a requirement that we need to make.

So I don't know if that answers your question specifically, but like Mr. Lusk said, there are 50 plans out there. And just depending on the neighborhood area plan, what it says, what the policies and goals say.

So I don't know if specifically if the Broadway-Broadmoor area plan says you must underground. It just depends on the plan.

Q. And Mr. Castro, assuming it does say that, is that the -- in terms of what the zoning examiner can do, the zoning examiner can take that into account and has flexibility to implement that policy in different ways; is that correct?

A. That's correct.

Q. However, in relation to the Gateway Corridor Zone, does the zone examiner have to apply that as it is in the code?

A. That is correct.

Q. Thank you.

CHMN STAFFORD: Okay. All right. So let me see. I think the applicants raised a number of plans that could -- that I think could potentially require undergrounding. So first was the Broadmoor-Broadway

Village Neighborhood Plan.

I think the Major Streets and Routes Plan, that only requires undergrounding through the Gateway Corridor Zone. There is a Scenic Corridor Zone that's not applicable for this application, but it would also apply.

MR. LUSK: That's correct, Mr. Chair. So the scenic -- the project area does not include a Scenic Corridor Zone. That's the Silverbell area that we discussed earlier.

And as far as the other area plans, my understanding is that those area plans -- that the area plans in which the applicant is seeking a finding for, I believe they generally say that underground -- utilities should be undergrounded where possible.

CHMN STAFFORD: Okay. And that's the MSRP, right?

MR. LUSK: Well, the MS&R plan actually implemented in the UDC as the Gateway Corridor Zone, the Scenic Corridor Zone, and the Major Streets and Routes setback zone.

CHMN STAFFORD: And this is also the Sam Hughes Neighborhood Plan?

MR. LUSK: Again, the similar -- I believe it's similar language. I think Mr. Dempsey will speak to

specifics of that language. I think it might be slightly different. But it's those plans are not implemented in the UDC in the same way that the Gateway Corridor Zone is.

CHMN STAFFORD: Okay. And then there's the University Area Plan.

MR. LUSK: Same with that. It's not implemented in the UDC. But it does, I believe, say that utilities should be undergrounded.

CHMN STAFFORD: Okay. All right. Any other questions from members?

MEMBER LITTLE: Mr. Chairman, I have one question.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Has TEP applied for any exceptions to date with respect to the Midtown project?

MR. CASTRO: No, they have not.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: I believe they're -- they need a specific route to do that.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Did you receive your exhibits yet, Member Little?

MEMBER LITTLE: Let me look.

MS. HILL: My information is they were just

sent to Tod.

MEMBER LITTLE: I got them. Thank you very much.

CHMN STAFFORD: Excellent.

MEMBER HILL: Mr. Chair, I have a procedural question.

We've talked about TEP witnesses coming back at some point so we could ask questions. Does that apply to all witnesses in all of the parties to this? So I have another question about the City stuff or City exhibits, then someone would be present to answer that question as well?

CHMN STAFFORD: Well, they're going -- if they're going to add additional exhibits I think they're going to have to -- unless they're all stipulated to, I want to lay a foundation and establish what they are and allow the members and parties to ask questions about them.

MEMBER HILL: Okay.

CHMN STAFFORD: Unless they're like totally noncontroversial, yes, it is a document, it says what it says. The authenticity is not questioned or anything like that.

MEMBER HILL: But we can recall any witness from any party when we -- when we get to that point.

CHMN STAFFORD: We'll ask all the questions we need to make a reasonable decision.

MEMBER HILL: Okay. Thank you.

CHMN STAFFORD: All right. Any other questions from members?

(No response.)

CHMN STAFFORD: Are you done with your direct, Mr. Lusk?

MR. LUSK: Yes, thank you.

CHMN STAFFORD: All right. Well, Mr. Castro is now available for cross-examination.

MS. GRABEL: Thank you, Mr. Chairman.

CROSS-EXAMINATION

BY MS. GRABEL:

Q. Good morning, Mr. Castro. My name is Meghan Grabel. I am outside counsel for Tucson Electric Power Company.

So sitting here this morning, it sounds like the City cannot make any commitments today whether TEP would be granted a special exception if it applied for one; correct?

A. That is correct.

Q. And if we could pull up the City of Tucson's, I believe it's Exhibit 8, it's your PowerPoint

presentation. And turn to the slide that I believe it says, "Relief from the GCZ underground requirements continued," where you list out the various special exceptions.

A. Do I have access to that?

Q. I think they're loading it for you.

A. Oh, okay. Okay. Is that COT-8?

MR. LUSK: That is, yes. And just for clarity, Mr. Castro, I believe it's the slide with the criteria.

MS. GRABEL: There we go. Perfect.

BY MS. GRABEL:

Q. So I believe you characterized the Gateway Corridor -- the Gateway -- I'm going to call it GCZ because it's easier -- the GCZ special exceptions as factors indicating that they are somehow discretionary. But when I look at the language, it specifically says that, "A special exception request to relieve the undergrounding requirement in the GCZ must meet one or more than one criterion listed in subsections A through H below."

So that language sounds mandatory to me.

Would you agree with that?

A. Yes. I would agree.

Q. I mean, it's TEP's position that the special

exception criteria are not black and white. Does the City agree that the project would meet the criteria for a special exception along the Campbell route?

A. I don't feel comfortable responding to that question.

Q. Because you don't know what the City's position --

A. Sure.

Q. -- would be on any of the special exceptions?

A. Sure. Sure. That's right.

Q. So would that same answer apply to whether the City -- if TEP applied for a special exception on the preferred route?

A. That's correct, yep.

Q. Okay. And before TEP can even get a special exception, the zoning administrator has to make a finding that the request complies with the general plan and any applicable subregional area or neighborhood plan.

Is that correct?

A. So it's not the zoning administrator that would make that. It's -- the application is reviewed by the entitlement section of the planning and development services, so they would review the application for compliance or conformance with the general and area plans, policies and goals.

Q. Okay. But under the UDC 3.4.5, the decision-maker cannot actually grant a special exception request unless a finding is made that the special exception complies with any area plan; is that correct?

A. That's correct.

Q. So there are perpendicular crossings even along the preferred route that may implicate the University Area Plan.

Would the applicable decision-maker be able to make that finding if TEP were to request a special exception along that route?

A. I can't say for sure.

Q. Okay. We've tried hard to figure out what the boundaries are of the University Area Plan and have come up a little short. Are you able to tell us what the boundaries are of the University Area Plan?

A. I cannot answer that.

Q. Can anyone in the City tell what us what the boundaries are?

A. I believe so. I believe it's a possibility.

Q. Is that information that you'd be willing to provide to TEP?

A. Yes. Yes. I can follow up with that.

Q. Okay. Thank you.

And if you'll look at special exception

number 8, it says that a special exception can be granted in an -- I'm sorry, H -- in an area where costs to install underground would have a disparate impact on low-income residents. How does the city interpret what a disparate impact on low-income residents is?

A. That's a great question, but I unfortunately don't have an answer to that. I don't know how they would determine that.

Q. Okay. Would it be helpful if the Line Siting Committee were to make that finding for the City? And this is specifically applicable along the Campbell route?

A. I think it would be acceptable to have supporting information, but I think the decision would ultimately lie with -- with the City to make that determination. But I'm sure they would be welcome to any kind of data or information that they could provide.

Q. Okay. You indicated that TEP can apply for a special exception at any time. Do I recall that testimony correctly?

A. Yes.

Q. Okay. I'm going to have my colleague, Eli Ancharski, hand you Underground Arizona's Exhibit No. 22.

And if we could pull it up on the screen, Grace.

Do you have that exhibit, Mr. Castro?

A. Yes.

Q. Have you seen this document before?

A. No, this is my first time.

Q. Okay. Well, this is the zoning examiner's decision dated May 13, 2021, on TEP's special exception application for a special exception land use for the Vine Substation.

And if you turn to page 8 in the document and I'll ask Grace to turn to page 8 as well. Thank you.

If you look at the one, two, three, fourth paragraph from the top, the third line, the zone examiner specifically says, "Given the uncertainty regarding the routes to be selected for the Kino DMP transmission line project, and the uncertainty of the location of the power lines which will connect with the proposed Vine Substation, compliance with PT and UAP cannot be determined on the current record. The zoning examiner denies the special exception request without prejudice to the applicant to resubmit its request when the additional information discussed above is available."

Would you agree that the zoning examiner required a route to have been determined at the time it makes its special exception determination?

A. I would agree.

Q. And would there be any reason to doubt that would be his position if we were to apply for a special

exception today as well?

A. No.

Q. You testified earlier that the special exception process takes about three months; is that correct?

A. Yes.

Q. So in TEP's experience, four and a half months is the fastest the company has ever received a special exception and six months is much more typical. Do you have any reason to disagree with that?

A. No. It is a possibility that it could take longer simply because of, again, the zoning examiner's schedule. That's something that I'm not privy to, or I don't work in the entitlement section so I'm not sure.

So this was just really just -- just thinking about what the requirements are for time line and meeting legal deadlines and that's pretty much how I came up with three months.

Q. So it's just kind of your best guess?

A. Yes.

Q. Okay. And the special exceptions criteria that were actually listed on your slide in COT-8 are recently enacted, are they not?

A. I'm sorry. Can you repeat the question?

Q. Certainly. So the special exceptions that you went through in your testimony with respect to the

ability to build a transmission line aboveground are recently enacted, are they not?

A. That's correct.

Q. And, in fact, they were negotiated as part of the prior iteration for this project when TEP was trying to build its Kino to DMP line between Tucson Electric Power and the City; correct?

A. I believe so.

Q. Okay. Has there ever been an application on these new special exceptions?

A. Not to my knowledge.

Q. Okay. So the time line on these brand new special exceptions is unknown; correct?

A. That is correct.

Q. Okay. So you indicated -- you indicated that the special exception process and determinations are independent of the City. Did I hear that testimony correctly?

A. That is correct.

Q. But the process to obtain a special exception is guided by recommendations from City staff; is it not?

A. That is correct.

Q. And that it can be appealed to the mayor and council; is that correct?

A. The zone examiner's decision can be appealed to

mayor and council.

Q. And all of those determinations are subject to quite a public process; correct?

A. It is.

Q. So would you agree that it likely has a political aspect to it?

A. I cannot say.

Q. Okay. You also indicated that we can apply for a variance from the Gateway Corridor Zoning overlay for the project, and you gave the Silverbell application as an example. Do you recall?

A. Yes.

Q. Do you recall that the City was actually the applicant for a variance in that Silverbell project?

A. Yes.

Q. And, in fact, the City required that variance because it was doing a public improvement and was requiring TEP to move its lines and the City would therefore have been required to pay for the undergrounding; correct?

A. That is true.

Q. So in granting the variance you were actually benefitting the City, were you not?

A. Sure.

Q. Okay. I believe you responded in a request --

in response to a question from Mr. Lusk that TEP could have received a variance from its past Kino to DMP project. Did you -- do you recall that testimony?

A. Yes.

Q. And I believe you testified earlier that the special exceptions that you just went through were part of negotiations with TEP and the City; is that correct?

A. Yes.

Q. In fact, TEP's head executive, Erik Bakken, who this Committee had the opportunity to hear from just a little over a week ago, your city manager and your city attorney negotiated the special exceptions process; correct?

A. Yes.

Q. And they were also looking for a funding mechanism to potentially bury part of the routes that were not subject to special exceptions?

A. I'm not sure about that part.

Q. Okay. Well, against all of that backdrop, do you think it's likely that TEP would have been granted a variance from the DMP to Kino line had it applied for one?

A. I cannot say really because it's really based on the application, and then the board is the ones who are making the decision based on what's submitted.

Q. Okay. So we talked a lot, you testified a lot about the Gateway Corridor Zones. To what extent and I think the Chairman was getting at this a little, and TEP would really like an answer, to what extent does the City believe that the historic overlay zone would require the current, the Midtown Reliability Project, to be built belowground?

A. I'm not sure. I can't answer that question.

Q. Can anyone at the City answer that question?

A. Sure. I'll follow up with that.

Q. So the same question with respect to neighborhood plans. To what extent does any neighborhood plan require the undergrounding of the current Midtown Reliability Project?

A. I'm not sure of which specific area plans. Again, it all just depends, you'd have to look into each area plan that the route crosses or is included in that plan. So I don't have any specific answers to those.

Q. What about the Sam Hughes Neighborhood Plan specifically?

A. The Sam Hughes area plan, I'm not a hundred percent sure. I'd have to look it up.

Q. Okay. Is that something you'd be willing to do and come back on a break?

A. Sure.

Q. Okay. Thank you. The University Area Plan has probably the greatest implication because of the -- it impacts all of the routes here, so does the City believe that the University Area Plan requires TEP to underground the rights that traverse through it?

A. Again, I'm not sure.

Q. Okay. I'm actually going to bring up the University Area Plan. And this is -- let's see if I can find my notes. It's Underground Arizona Arizona's Exhibit 19. And it's attached to that Exhibit as Exhibit N. And I believe you have that in front of you, and I'm going to ask Grace to please turn to 5, Grace or whoever's manning the screens, to turn to page 5?

CHMN STAFFORD: Excuse me. What is UAZ-19?

MS. GRABEL: UAZ-19 is a compilation of various plans, and Exhibit N is specifically the University Area Plan.

MR. DEMPSEY: It's -- you can use 24. Sorry. You can use 24.

MS. HILL: There's only a -- it's only a one-pager in 24.

MS. GRABEL: Yeah, we want to show the entire context, which is UAZ-19.

CHMN STAFFORD: That's the entire University Area Plan?

MS. GRABEL: Correct.

BY MS. GRABEL:

Q. So, Mr. Castro, are you ready?

A. Yes.

Q. Okay. I'm going to read to you from the third paragraph through the fourth paragraph and then ask you a question.

So it says, "The University Area Plan provides general guidance for noncampus land uses throughout the university area, while three adopted neighborhood plans, West University, Blenman Vista and Sam Hughes, offer more specific direction for land use in each respective neighborhood. While the policies of the University Area Plan and the three neighborhood plans are intended to work together, the neighborhood plans would be controlling where they provide more specific policy direction than the University Area Plan."

And then I'll skip down to the fifth paragraph.

"The University Area Plan will play a key role in the review of new development in the university area. The mayor and city council will make decisions on specific land use proposals based on the direction established by the University Area Plan, adopted neighborhood plans, and the professional recommendations of City staff, et cetera."

From the language that I just read to you, isn't it the case that the University Area Plan doesn't provide any, you know, actual regulation unless it's adopted as part of an application for a specific land use proposal such as a zoning decision?

A. That would be fair to say.

Q. Thank you. And now I'll ask you to turn to page 35. No, page 30. I'm sorry. 35 is --

And this is where the language regarding undergrounding is found. And it's entitled under -- it's in a section entitled "Public Services." And if you'll see, it says, "Goal is to ensure an adequate supply of high-quality public services to meet the current and projected needs of university areas and residents."

And if you hop down to 6 it says, "Wherever possible place utility and service equipment underground or in visually screened locations."

Would you agree that that language does not mandate the underground construction of transmission lines?

A. I would say so.

Q. Would you also -- are you familiar with the fact that a large portion of this project will be -- will actually bury existing distribution lines and, in fact, there'll be a net reduction in overhead utility poles as

part of this project?

A. Can you repeat that again?

Q. Certainly. It was probably poorly stated.

Are you aware that part of this project actually relocates or buries underground many existing distribution lines that are currently on City of Tucson streets?

A. Yes. I believe so. Yep.

Q. And are you aware that's actually going to be a net reduction of utility infrastructure as a result of this project once it's complete?

A. That, I'm not sure.

Q. Okay. Well, take that as an assumption. I'm assuming that is true. Would you believe that that fact meets the spirit of the University Area Plan and, in fact, potentially the language?

A. It's possible. Again, I don't feel comfortable stating my position.

Q. Okay. Hold on one second.

MS. GRABEL: Nothing else. Thank you.

CHMN STAFFORD: All right. Banner Health.

MS. DE BLASI: Mr. Chair, Banner does not have any questions for the witness.

CHMN STAFFORD: All right. Mr. Dempsey.

MR. DEMPSEY: Underground Arizona does not

have any questions for the witness.

CHMN STAFFORD: All right.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I appreciated Ms. Grabel's line of questioning on Section 30, or page 30 of that report. Can we bring it back up, possibly? And this is a question for the City.

If we go back to that page 30.

In this, and I don't have all the context because I don't know what the header was above the Section 6, Public Services, but there's a goal. We talked about the spirit. But then there's a word called "Policies." And I'm just wondering if the City can explain the difference between the spirit of the plan, the goal of a Section 6, and the policies. What do the -- what does -- specifically what does "policies" mean.

MR. CASTRO: The best way I can answer that is think of policies as a way of -- I don't want to say implementing, but sort of suggesting how to accomplish the goals that are stated under that section.

So you may have policies suggesting and not mandating -- these are, again, these are just policies suggesting support, you know, for example, whenever

possible like we talked about place utility and service equipment upgrades underground or in other visually screened locations. So that is a policy.

Again, that's the best way I can explain it is that it's a suggestion. Does that make sense?

MEMBER HILL: Yeah, I think as a layperson I think of policies as mandates and not as suggestions. So that's helpful, because I do feel like most of these feel a little suggestive rather than mandates. And so I just wanted to know if there was anything that I needed to be aware of around the use of the word policy, so that's helpful.

MR. LUSK: Member Hill, if I could clarify. Excuse me.

Mr. Castro, can you maybe describe how particular policies might be utilized in the special exception process as opposed to something like a code section?

MR. CASTRO: Right. So anything in the UDC is code, it's mandated. Whereas anything in the -- like here, the policies in this University Area Plan, they're not under the UDC so it's not something that would be mandated or required. So that's probably -- is that what you're getting at, Mr. Lusk?

MR. LUSK: Sure. And so for clarity,

assuming there's a special exception process in this case, the zoning examiner could look at that policy and determine for themselves whether or not the overall project meets that policy.

Does that sound right?

MR. CASTRO: That's correct.

MR. LUSK: And they could find either way? They could find either that it does meet that policy or it does not, or there is some combination?

MR. CASTRO: That is correct.

MR. LUSK: Thank you, Mr. Castro.

Does that answer --

MEMBER HILL: Thank you, Mr. Lusk. That's what I was trying to understand, how it applies.

MR. LUSK: Of course.

MEMBER HILL: Thank you.

MR. LUSK: Thank you, Member Hill.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: That was going to be my questioning so it's now covered. Thank you.

CHMN STAFFORD: Other members? Questions?

(No response.)

CHMN STAFFORD: All right. With that, Exhibits COT-1 through 8 are admitted.

(Exhibits COT-1 through COT-8 were

admitted.)

CHMN STAFFORD: Any redirect, Mr. Lusk?

MR. LUSK: Just a couple questions.

REDIRECT EXAMINATION

BY MR. LUSK:

Q. Mr. Castro, as it relates to the Silverbell variance that the City sought in 2021, would that variance process have been available to TEP had they identified it?

A. Yes. It would.

Q. Okay. And in 2021, would it have been available for the Gateway Corridor Zone as well?

A. Yes. It would.

Q. All right. Thank you.

MR. LUSK: That's all I had.

CHMN STAFFORD: Thank you. Mr. Dempsey, are you ready to call your witness?

MR. DEMPSEY: Yeah, I'm calling myself but can I have a few minutes to get technically prepared?

CHMN STAFFORD: Okay. Great. Let's take a brief recess for probably five to ten minutes. We stand in recess.

(Recess from 11:28 a.m. to 11:42 a.m.)

CHMN STAFFORD: Let's go back on the

record.

Now it's time for Underground Arizona to present its witness. That will be you, Mr. Dempsey?

MR. DEMPSEY: Correct.

CHMN STAFFORD: Do you prefer an oath or affirmation?

MR. DEMPSEY: The oath.

CHMN STAFFORD: Do you swear the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

MR. DEMPSEY: I do.

CHMN STAFFORD: All right. You have quite a number of exhibits here.

MR. DEMPSEY: Yeah. I don't know that we're going to get to all of them, but yes.

CHMN STAFFORD: In the interest of time, is there any reason the parties can't stipulate to the admission of these or do we need to go through them?

I do see that Mr. Dempsey did take his 19 off the list, his updated list, but that's already been covered by Ms. Grabel in her cross of City.

MR. DEMPSEY: It's because that exhibit was 500 pages, so I kind of broke it out into the supplementals.

CHMN STAFFORD: All right, now what -- I

think you referred to, what, 24, does that contain the section that Ms. Grabel --

MR. DEMPSEY: I don't -- I don't recall exactly what sections it has. I could make it the full.

MS. GRABEL: Mr. Chairman, we just referred to the University Area Plan which is only 50 pages, so perhaps TEP could just make that our own exhibit.

CHMN STAFFORD: All right. Yeah, because it's previously referred to as his UAZ-19.

MS. GRABEL: Correct.

CHMN STAFFORD: But that's blank on my list now. Looks like he said it was 500 pages, though.

MS. HILL: UAZ-24 only contains the policy statement. So it only contains one page of what Ms. Grabel referred to. So we'll just make it our exhibit.

CHMN STAFFORD: Okay.

MS. HILL: We'll just make the entire plan our exhibit.

MS. GRABEL: If I could just make a request. So the University Area Plan is publicly available online. So that we waste 50 pages times 25, can we just file one page that refers to the URL address where the University Area Plan is contained?

CHMN STAFFORD: That makes sense to me.

MS. GRABEL: Okay. Great. Thank you.

CHMN STAFFORD: There'll be a supplemental. Let's see. Let me get your exhibit list out.

MS. GRABEL: It will be TEP-35.

CHMN STAFFORD: 35. What's 34? I don't have a 34 for y'all.

MS. GRABEL: That's because we have not yet talked about it. But I think we did file it in the docket yesterday. Did we? Yes, we did.

CHMN STAFFORD: Okay.

MS. GRABEL: It is some excerpts from an SRP hearing that may be responsive to testimony Mr. Dempsey puts on today.

CHMN STAFFORD: What line siting case was that?

MS. GRABEL: That was the SRP H-I-I-P Case 195.

CHMN STAFFORD: 195. Okay. And then 35 is going to be the University Area Plan?

MS. GRABEL: Correct.

CHMN STAFFORD: Okay. That'll just be a link, okay.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I'm not finding this on my

screen.

CHMN STAFFORD: Which one?

MEMBER GOLD: The TEP-35 is not there yet.

CHMN STAFFORD: Yeah it's just going to be the link here. They've already referred to it. It's a 500-page document, so instead of handing a big, giant -- another binder with 500 pages, they just provide a link to it. They've already referred to it. It was previously numbered as an exhibit for UAZ, but he pulled 19 and instead offered UAZ-24, which is just excerpts which contained less than the portion that Ms. Grabel referred to in her cross of the City.

MEMBER GOLD: Okay. And next question, the undergrounding portion, where's that on this screen?

CHMN STAFFORD: Oh, his exhibits, if you go to the -- scroll down to the bottom it's the last folder there, the blue folder.

MEMBER GOLD: Is that Bates?

CHMN STAFFORD: Yes.

MEMBER GOLD: Underground Arizona. Got it. Thank you.

CHMN STAFFORD: All right. I'm going to go ahead and admit TEP-35, seeing as how you already covered it.

(Exhibit TEP-35 was admitted.)

MS. GRABEL: Thank you.

CHMN STAFFORD: And then, so Mr. Dempsey, did you have a presentation or did you just want to go through your exhibits?

MR. DEMPSEY: Yeah, I have slides.

CHMN STAFFORD: Okay. Do you -- I guess, to the parties, do we want to just stipulate to his exhibits or do you want -- or are some of them not going to be necessary, Mr. Dempsey?

MR. DEMPSEY: It's possible some of them won't be necessary.

CHMN STAFFORD: Okay. All right. I'll let you provide your testimony.

MR. DEMPSEY: Okay. Thank you.

DANIEL DEMPSEY,

called as a witness on behalf of Underground Arizona, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, was examined and testified as follows:

MR. DEMPSEY: I appreciate everybody's time. I'm sorry this is taking so long. My testimony was supposed to be a lot shorter, but --

MS. GRABEL: Mr. Chairman? I'm sorry.

CHMN STAFFORD: Yes, Member Grabel -- Ms. Grabel.

MS. GRABEL: I'd love to be Member Grabel. If he's providing testimony, do you need to swear him in?

CHMN STAFFORD: I already did.

MS. GRABEL: Oh, I'm sorry. I wasn't paying attention. My apologies.

CHMN STAFFORD: I made sure I did that first thing.

MS. GRABEL: Sorry.

CHMN STAFFORD: Please proceed, Mr. Dempsey.

MR. DEMPSEY: Okay. So before I get into my testimony, my prepared testimony, this is also prepared, I want to address a few things.

It's the next slide after this, actually. I believe. Or go back. Maybe it's the slide before. There you go.

So, I want to address a few things.

CHMN STAFFORD: And this is?

MR. DEMPSEY: This is TEP-16, Slide 11, I believe.

So in my world, to calculate a differential -- or I'm sorry, let me back up.

So here -- am I supposed to push this button? All right. So I'll just do it in person.

So what Mr. Jocham did in calculating the differential is he divided this number by this number, and that's a perfectly acceptable way of doing it.

The mistake that he made from the world I come from, and this may be a difference between engineers and financial people, is he did not subtract by 1. My experience is that you subtract by 1, and you do that because, to put it simply, the differential between two numbers that are the same amount, like say $2 million, is not 1, it's zero.

So that's the only difference that I could find between his calculations and mine. I could not find any errors in my calculations. If you want to add a 1 to all of my differentials or subtract a 1 from his, go for it. It does not materially change anything that I'll be presenting or have presented.

And as for the rest of his comments from yesterday, I'm going to walk you through that here in a few moments.

Now I want to briefly talk about slide -- or TEP-8, Slide 19.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm sorry to whine again but I don't have his exhibits.

CHMN STAFFORD: TEP-8?

MEMBER LITTLE: No, no. The Underground Arizona exhibits.

MR. DEMPSEY: I did not send them to Tod. I did not know about Tod. That may be the issue.

CHMN STAFFORD: Okay. Yeah, that's going to be --

MR. DEMPSEY: You can -- you were CC'd so we could forward --

CHMN STAFFORD: I'd have to pull up my --

MR. DEMPSEY: I can try to do that real quick.

CHMN STAFFORD: It was a zip file or something, wasn't it?

MR. DEMPSEY: Yeah, it was a zip.

MS. GRABEL: Mr. Chairman, we can do it.

CHMN STAFFORD: Yeah. All right. Yeah. Just forward to Member Little and then Member Somers, too.

MS. GRABEL: We'll forward it to Tod.

CHMN STAFFORD: Okay.

MEMBER LITTLE: Thank you very much.

CHMN STAFFORD: Sorry, Tod.

MEMBER LITTLE: I appreciate it. I'm sorry to be a pain.

MR. DEMPSEY: No, you should have them, absolutely. That's my mistake.

So I want to talk about this slide which is what we called the halfway solution. We recognized early on -- or not early on, I guess it was last year that TEP is predisposed to fight about all these issues for another decade and we proposed a temporary solution of only connecting Vine to DeMoss Petrie to increase capacity to the area while TEP continued to fight.

TEP has already done this for Kino and Irvington, and it's how its sister company runs Nogales. I understand this is not their preference, but if we're talking about emergency triage, it is an available option.

It would only require a half mile of undergrounding along Vine and would resolve any urgent capacity issue for the area while allowing TEP to keep fighting all the City laws that it does not like.

I'm a pragmatist. I -- this is far from the only idea we've proposed. I want to be sure that you understand the context of how we operate. Moreover, I'm not a fan of how TEP is trying to use any urgency created by its decision to not follow local laws as an excuse to

be given permission to not follow those laws. If you reward that kind of behavior, you're asking for even more trouble in the future.

So we can switch to my slides now.

CHMN STAFFORD: And your slides are Exhibit UAZ --

MR. DEMPSEY: You can go to the first slide or I can go to the first slide. Sorry.

CHMN STAFFORD: Which exhibit is your slide show?

MR. DEMPSEY: 62, I believe. I e-mailed it to you and I actually included Tod.

So first off I want to thank my family for letting me do this. This has taken up many nights and weekends and my wife has been amazingly supportive.

I'm doing that purely as an unpaid volunteer in my spare time because I love Tucson and I love Arizona. We can protect these and other parts of Arizona for what are relatively trivial amounts of money. I want to thank the many hundreds of Tucsonans from all over the city who have voluntarily spent days and nights putting a lot of their time and work into this effort.

So Underground Arizona was formed to inform the public about underground electric lines in Arizona. There is a dearth of organized information in this space.

We figured others would find our organizing this information to be useful including the utilities themselves. Underground Arizona is not the Underground Coalition. However, it is supported by the Underground Coalition, as well as many individuals and businesses. And it's not just limited to Tucson. Tucson is merely our origin story. We have been talking to members of other communities around the whole state.

So, sorry, I have different ones here.

My career began 20 years ago as a research assistant for Citigroup's investment bank, covering energy companies. I held four FINRA licenses, including licenses 86 and 87, which are required to be a research analyst.

I have included in UAZ Exhibit 51 extensive details about what research analysts do in the financial industry. Since then I have a performed a similar role in the real estate industry for very large investors.

This is my most -- this is my most directly relevant experience, but it's far from my only experience. For example, I served on a New York University board where we built a cogeneration plant in Greenwich Village in the middle of New York City, and it was a very similar process.

Anyways, as a research analyst, I would

evaluate the financial performance decisions and strategy of a company's management in order to reach a decision on whether their securities or a project they were proposing was a good or bad investment.

A company like TEP or Fortis would come to us and say they needed $500 million in debt or equity to do a project. We would evaluate their financial documents and claims and approve or deny investment.

When you evaluate a project, you verify not just the claims made by the company but the experience of nearby comparable companies.

You also look for material omissions and potential legal and regulatory hurdles which increase cost and risk. Evaluating a project like TEP's and the strategy of its management team is something that I have done hundreds of times.

For regular clients we would spend months recreating their entire business as a simulation in spreadsheets or code so that we could simulate how different assumptions or projections would affect their business. From commodity prices to customer demand and growth to competition from new technologies, we would simulate various scenarios to understand financial risk and reward. And so we would model out literally every revenue item and every expense item to great detail.

My understanding of TEP's application is as follows: The City of Tucson has decades-old plans and ordinances which I'll just call laws, that require the undergrounding of electric lines in strategically and historically important areas.

TEP claims that the cost of undergrounding in those areas is so high that the project is not feasible and the ACC must take the extraordinary step of superseding those laws under Arizona Revised Statutes 40-360.06(D) as in David, which I'll call subsection D.

This subsection D requires a finding that the City of Tucson's laws are, "Unreasonably restrictive and compliance therewith is not feasible in view of the technology available."

Subsection A of the same statute contains nine factors that must be considered when approving the utilities application. The cost is factor 8. The other factors include factor 1, the existing plans of a city, factor 5, existing scenic and historic areas, and factor 6, the total environment of the area.

I can find nothing that assigns the cost factor any more significance than the other factors. And as far as I can tell, the City of Tucson's laws exist to protect those other factors. Therefore, it is not at all certain that these laws can be determined "unreasonably

restrictive." The statute clearly considers certain restrictions to be reasonable.

However, setting aside that question for now, we can examine the costs claimed in TEP's application to see if the cost factor is significant and would render the project infeasible.

On page 28 of its application, TEP claims, "The clear and longstanding practice in Arizona has been that the proponent of undergrounding, rather than the utility, pays for the extra cost of undergrounding."

To verify the veracity of this claim we look at recent Arizona projects and the experience of other utilities in dealing with municipalities, regulators and the courts.

In support of its claim that proponents pay for the extra costs of undergrounding rather than the utility, TEP cites line siting cases 175, 195 and 198. In reviewing these cases, contrary to TEP's claim in cases 175 and 195, SRP, the utility, paid for the extra costs of undergrounding, using it municipal aesthetics program. While SRP allocates funds to cities through the program, the funds are still coming from the utility. And in none of these cases were there any laws that I'm aware of requiring the undergrounding of transmission lines to protect historic or other sensitive areas.

This is SRP's 2024 budget from UAZ Exhibit 9. It exhibits -- or I'm sorry, it budgets $18 million per year in 2024 and 2025 to aesthetics, including undergrounding transmission and distribution lines. At some point in the past the SRP board determined that paying for undergrounding even where not required by law was prudent.

Currently, APS is refurbishing and reconductoring roughly three miles of an 11-mile, 230-kilovolt high-pressure fluid-filled underground line in central Phoenix. And I'm going to call it an HPFF line just for preference.

As far as I can tell, the cost of doing this is being covered by ratepayers even though an aboveground line might be cheaper. In its 2023 FERC Form 1 filing, which is UAZ Exhibit 36 under, "Construction work in progress," APS included two line items seemingly related to this project. HPFF mitigation phase zero and phase 1. They total $29.3 million. Given the timing and wording it is highly likely that this expense is related to this project.

If so, it is possible that the mitigation costs alone are over $8 million per mile.

Which according to TEP is far more than aboveground line and should be unrecoverable from

ratepayers.

We will know much more about this in APS's next annual FERC filing, which is like March of next year.

I found many more examples of utilities paying for the extra costs of undergrounding, including some in the table below or above, or here.

I can find no evidence of these projects being paid for by third parties. That does not mean it's not possible, but this is a process of falsifying. And if I cannot find evidence of anyone else paying I have to assume the utility paid.

In addition, distribution undergrounding being required by law is extremely common in Arizona. In fact, I could not find a single municipality that did not require it. Now, most of it happens during new developments, and is paid for by the developer. But that's not necessarily always the case.

TEP has demonstrated that in this very case by volunteering to underground 6.4 miles of distribution, even if it's on the opposite side of the street -- I phrased that wrong -- but APS has $3.5 billion of underground distribution assets on its balance sheet. This is net of contributions in aid of construction which means net of third-party funds. Undoubtedly some,

perhaps a lot of these balances were costs wholly incurred by ratepayers.

So back to TEP's application.

For support for its argument that undergrounding is prohibited by the ACC, TEP cites policy statement 79140. As you can see highlighted here in green, it says, "As a general matter utilities under the Commission's jurisdiction should avoid incurring higher costs unless underground installation of a transmission line is necessary to satisfy other prudent operational needs."

In my professional opinion following the law is a, quote, prudent operational need.

As we can see in the current case, not following the law has wasted years and over $10 million and may end up wasting over $20 million because the issue here is laws and not mere preferences. Policy statement 79140 is unhelpful to TEP's claim.

Moreover a policy statement is not law. It cannot change the law to make costs more important than the other factors. I know that from -- I know that from my experience having an Arizona real estate broker's lines. I recall a time when the Arizona Department of Real Estate put out a policy statement that the attorney general did not like. Anyway, that's just an aside.

While I'm not going to get into it here, I need to note for the record that I'm still not convinced that the Line Siting Committee has jurisdiction over anything more than the routing of the transmission lines. If a local law precluded certain routing, then I believe the Line Siting Committee would have jurisdiction to supercede that law. But that's not the issue here. The issue here is the location of above or belowground within a route.

CHMN STAFFORD: Can you please slow down, Mr. Dempsey.

MR. DEMPSEY: Thank you.

CHMN STAFFORD: The court reporter is having trouble keeping up.

MR. DEMPSEY: Sorry. I apologize. I'm used to going fast.

All right. Finally, it is important to understand how previous disputes between cities and utilities have been resolved.

In APS versus Town of Paradise Valley in 1980, the Arizona Supreme Court determined that, "Local governments can prescribe undergrounding within their boundaries," which is the first. The second is, "Alternative funding mechanisms do not prevent the town from mandating the undergrounding at utility expense."

And three, "The line siting statute evidences a legislative recognition that the cities and towns have the power to act on high-energy transmission lines."

And in the recent court decision against TEP, the superior court said -- am I going fast again? I'm sorry.

The superior court said, "The court finds that as a matter of law, the City has the authority to require undergrounding of transmission lines."

Therefore it is neither clear nor longstanding practice that proponents rather than the utilities pay for the extra costs of undergrounding. In fact, utilities regularly pay the extra cost, and cities can legally mandate that the utilities pay for it as the case here.

It is TEP's resistance to these laws that has caused and will continue to cause delay. Embracing these laws is the only surefire way to get this timely.

Again, as an example, TEP keeps glossing over the historic and neighborhood preservation zoning ordinances.

These neighborhoods take this stuff very seriously. As you can see at Speedway and Euclid where the developer was moving historic homes to build a new

tower. There was also a lengthy fight about 5G poles.

The idea that TEP is going to quickly or ever get a variance to build through these historic areas is I think based on its own inexperience, and I fear that lack of awareness is because they have not tried to build anything significant through these areas in decades. Maybe none of the people that currently work there.

So the shortest path to getting this project done is for TEP to stop fighting local laws. The City cannot simply stop enforcing its laws because TEP does not like them. Even if the Line Siting Committee supercedes a few ordinances and plans, in some of these areas there are four or five layers of challenges that TEP may need to overcome.

So TEP cost claim number two.

On page 29 of its application, TEP claims, "This independent study by Sargent & Lundy showed an estimated cost for engineering material procurement" -- well, I cut it down there, sorry -- "and construction of $25 million per mile for an underground line."

To verify the veracity of this claim we will look at Sargent & Lundy's studies nearby a recent comparable data and the testimony of utilities in other line siting cases.

So I'm going to spend a minute establishing

an overhead cost for TEP for the most reasonable undergrounding route, which is Route 1 along Campbell because it is the shortest route and it is the widest right-of-way.

So TEP claims that to go 2.9 miles along Route 1 will cost $11.8 million. This works out to $4.1 million per mile. I'm going to use this figure in my next table.

TEP's application claims undergrounding costs $25 million per mile. It makes no mention about it being a range or anything else. It then says, "Undergrounding will cost $67 million extra." Before you is a table of calculations based on some of Sargent & Lundy's nine reports, or eight reports, whatever it was.

So on line 1 is its very first estimate from 2020 where it put the base cost of undergrounding at $9.1 million per mile. This is UAZ Exhibit 1.

This included jack and bore. It then removed jack and bore to get a new base estimate of $8.2 million per mile. This is UAZ Exhibit 54.

The base cost in its latest revision is $17.8 million per mile. That is TEP Exhibit 17.

If we assume 30 percent, the 30 percent savings that Mr. Jocham mentioned is the new policy of, I

guess, engineering estimates, we get to $12.5 million per mile. I'm going to be referencing this table a lot as I move forward.

To get an idea of whether these costs are reasonable, we can look at recent nearby comparables in this table, or in this table is recent undergrounding projects in Arizona taken from public records as referenced in the bottom left corner. They are UAZ Exhibits 36 to 41.

The SRP data is derived from their ACC report -- from their ACC hearings which are UAZ Exhibit 5 and UAZ Exhibit 58.

Most every utility has to file an annual report with FERC. One of the data points that they must report is transmission lines added during the year along with the cost of what those transmission lines were.

This data -- the data on this table is taken from those reports. SRP does not report this data to FERC or at least I could not find it quickly. 69-kilovolt lines are reported here as transmission. So that's why you see a lot of 69-kilovolt.

So the average cost for 69 kilovolts over all these projects is $3.9 million per mile.

And the average cost for 230-kilovolt is $11.8 million per mile. This is in line with the

testimony of Zack Heim, SRP's director of transmission line design, construction and maintenance, from line siting case 195 where he said, "We find that the per-circuit-mile equivalent of underground 230-kilovolt line is in the 10 to $15 million per range" -- range, not per range.

As a quick aside, a problem is that Zack Heim also says overhead 230-kilovolt costs 1- to $1.5 million per mile, and the cost differential is therefore 10 to 15 times.

He does not caveat this as omitting material cost information. Later in his presentation, he shows that SRP is paying $56 million for about seven miles of overhead 230-kilovolt double circuit transmission, which works out to $4 million per mile per circuit. So the differential is actually a lot less than 10 to 15 times.

Unfortunately, this 10 to 15 time differential becomes a talking point used with the general public and the Line Siting Committee that omits this material information about overhead costs. Which is that the right-of-way -- sorry. I have some typos here. Just a second.

So a key difference between overhead and underground lines is that underground lines can use the

entire right-of-way and don't need room for blowout. As where poles can only go a few places and private property frequently abuts right-of-ways without any setbacks.

So underground lines tend to be cheaper from a land acquisition cost standpoint.

So getting back on track here. And to illustrate a concept. Here's the same data from the prior table in a scatter plot with costs per circuit on the Y axis and voltage on the X axis. Because the cost of a transmission line generally increases with voltage, we would expect the cost of 138-kilovolt line to fall in between the costs of a 69-kilovolt line and a 230-kilovolt line. If we take the line between those two averages we get a midpoint of about 7.9 million dollars per mile.

MS. HILL: I'm sorry, Mr. Chair. Could Mr. Jocham [sic] slow down a little bit? We're trying to take some notes.

MR. DEMPSEY: Sure. I'm sorry.

MS. HILL: I'm sorry, not Mr. Jocham. Mr. Dempsey. I was -- I happened to be looking at Mr. Jocham at that moment. I apologize.

CHMN STAFFORD: Yeah, please slow down, Mr. Dempsey.

MR. DEMPSEY: I'm sorry. Yeah, just -- I

need like a light you guys can flash at me.

MS. HILL: And if he could repeat what he just said about the costs in the plot chart with this slide, that would be helpful because he sped up and I can't -- I couldn't track it.

MR. DEMPSEY: You want to me to go back to this slide?

CHMN STAFFORD: You're on Slide 29 of your UAZ-62.

MS. HILL: I think this is where I lost him.

MR. DEMPSEY: I'll repeat this -- what I have for this slide.

Because the cost of a transmission line generally increases with voltage, we would expect the cost of a 138-kilovolt line to fall in between the costs of a 69-kilovolt line and a 230-kilovolt line. If we take a line between the averages, we get a midpoint of 7.8 or $7.9 million per mile between 69 kilovolts and 230 kilovolts.

And if we give ourselves a buffer, we would get to a reasonable expectation of something like this. Ideally I would have more data and I could create a regression, standard deviations and all that kind of stuff, but I only have only have so much time and this is

not my job. I'm just showing you a concept.

And from here we can plot what TEP said it would cost in its application. Which is $25 million per mile. And then we can plot the Sargent & Lundy base cost from its latest report which is $17.8 million per mile. And here is Sargent & Lundy using the 30 percent discount from its tables which is $12.5 million per mile. And here is Sargent & Lundy's estimated base cost in 2020 which was $8.2 million per mile.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Dare I pause the conversation now with a question or shall I wait at the end?

CHMN STAFFORD: Is it about this particular slide or something more general?

MEMBER KRYDER: This particular slide.

CHMN STAFFORD: Then please ask your question, Member Kryder.

MEMBER KRYDER: I don't know very much about electrical transmission, point in fact. However, I know a little bit about technology, and I -- excuse me -- and I find that drawing a straight line between a 69kV and a 230kV and saying cost estimates ought to just follow that straight line stretches my understanding.

MR. DEMPSEY: So I'll explain and -- I'll explain.

MEMBER KRYDER: Give it to me, then.

MR. DEMPSEY: So -- well, if you let me continue on and then -- then I'll see if I answer your question.

So, okay, so let me explain how this would work. If we were at the bank; right, if we were at Citigroup and you came to us, what we would do is we would do about 10, 20 different analyses to try to figure out whether or not, you know, you're full of baloney, which I'll explain in a minute. Slow down? Sorry.

So we would do a whole bunch of analyses. This is just one. And you try to see, okay, is what they're asking for reasonable. Because what you're worried about at the bank or for any investment or any investor is -- I'm not saying this is at all what TEP is doing, I don't think this is what they're doing.

Is you're worried about being taken advantage of. You don't want someone to give you a cost that's way above something so that they can kind of pocket the difference. So at the bank you'd be like, okay, so what would, they're saying this, but what would we expect it to be based on these other things.

And this is, as I said, a concept of how we

would do it. I -- this is my job, I don't have all the data to do it in a super detailed way, but it would be approximately like this:

You would plot out the different projects, and then you would figure out, okay, why are they two or three times recent projects? And that would be a red flag, and then we would -- as I'm going to explain in just a minute, then we would bring in a third party and say, "Hey, what's up with this?" An arm's length third party, not somebody that's employed by the -- by the -- by the company, we would bring in an arm's length third party, maybe multiple arm's length third parties. And then we would figure out what's going on.

And we turn down half of the things we look at for similar sorts of problems.

MS. GRABEL: Mr. Chairman, if I may make a quick suggestion, just for efficiency. I can save it for redirect, but there's no time line for these projects on this slide. And that information is certainly relevant to the costs, and so that's information Mr. Dempsey might want to provide as well.

CHMN STAFFORD: Right. It's provided in the -- I look at the bottom of the slide and it says the source of the information. But --

MR. DEMPSEY: It's a table.

CHMN STAFFORD: Right, it's from the --

MR. DEMPSEY: It's the same table plotted. I just threw some stuff in the middle. So normally before I revise my slides I went straight into that, but I added this little Zack Heim discussion in the middle. So -- now they're kind of disconnected. I'm sorry.

MEMBER KRYDER: May I reply with another question?

MR. DEMPSEY: Yes.

MEMBER KRYDER: I know a little bit about agriculture. And there's a great deal of difference if you take certain seeds and then the seeds that have come out in genetic modification, to use that example.

The technology is significant move from just an easy seed, something you'd grow in your garden and you'd capture it and replant it, to one that you put in years and many dollars of research to genetically modify. And this is what troubles me about the straight line thing of saying 69, draw a straight line up to 235, just doesn't register with me.

MR. DEMPSEY: So I think the way I could have done this better, again, you can see I just drew that line with, like, my hand basically. I didn't have a lot of time.

So what I would have liked to have done is

essentially make like a cone between the top and the bottom. You know, there's other ways to display this data. That's why I explained that it's a concept, it's not -- but, yeah, yes, there are other ways to display this that might be a little better, I agree.

And one of the other criticisms that someone might have is, well, yeah, but those projects weren't, you know, this is downtown or Central Tucson. Some of these projects are in central Phoenix. So I feel like there's enough data here that you can kind of control a little bit, but yeah, it would be great to have a whole lot more data.

MEMBER KRYDER: Okay. I'll let you pass here, but that really troubles me. Thanks.

MR. DEMPSEY: Okay.

CHMN STAFFORD: Ms. Grabel, did you find the information you wanted on his Slide 23, which is the basis for that chart on Slide 33?

MS. GRABEL: I do see what's referenced. Thank you, Mr. Chairman.

CHMN STAFFORD: Okay. Please proceed, Mr. Dempsey.

MR. DEMPSEY: And so, yeah, so all of these are recent projects. I mean, 2018 and newer projects.

MS. HILL: I have a -- I'm sorry, I do have

one question to clarify the slide if I could.

CHMN STAFFORD: Normally I'd make you wait till cross, but --

MS. HILL: No, no, no. It's --

CHMN STAFFORD: You're asking for clarification of this particular slide, it's already been coming up, so I'll allow it.

MS. HILL: That's it. Were either of the Scottsdale projects the Raintree project?

MR. DEMPSEY: I'm not sure.

MS. HILL: Okay. Thank you.

CHMN STAFFORD: Please proceed, Mr. Dempsey.

MR. DEMPSEY: All right. Hold on.

CHMN STAFFORD: So you're back at Slide 33.

MR. DEMPSEY: Really what I'm trying to display here is that their number is way out of -- it would be an outlier. If this was a regression it would be an outlier.

MEMBER KRYDER: And that's what I would see in what we just saw back a couple of slides, that it would be incredibly unlikely --

MR. DEMPSEY: Right.

MEMBER KRYDER: -- following the technology from a land raise to a genetically modified seed, you

can't draw a straight line.

MR. DEMPSEY: Fair. Thank you.

Let's see. Some of this I already said, so I'm going to repeat myself. Given Sargent & Lundy's estimates, nearby comparables and the continued testimony of SRP TEP's claim that undergrounding 135-kilovolt cost $25 million per mile is incredibly unlikely and would be a huge red flag for a bank.

There's been inflation but not 300 percent inflation. And it's a red flag because you're always worried that someone is trying to overstate costs to pocket the difference. I'm not suggesting that that is what TEP is doing here. What I'm suggesting, however, is that we would get a second or third opinion and talk to some contractors that have done these other jobs.

If TEP's cost estimates were more in line with comparables, we might not ask for that additional -- those additional opinions. This is not unlike what you would do if you were building a home.

If the architect said it would cost three times as much as what your neighbor just built their house for, you'd start to wonder about your architect's numbers.

So on page 29 of its application TEP claims, "The extra cost is significant and will result in

higher rates for all TEP customers if included in the rate base. To verify the veracity of this claim, we can do some research and some math.

"According to Sargent & Lundy's latest estimates to comply, the City of Tucson laws would require 2.8 miles of 138-kilovolt undergrounding. While we think Sargent & Lundy's numbers are high, if we use the lower end of $12.5 million per mile, and assume an aboveground cost of $4.1 million per mile as TEP has estimated, the total extra cost to comply with the law is $19.1 million."

CHMN STAFFORD: Is that per mile, total cost?

MR. DEMPSEY: Total cost.

CHMN STAFFORD: Total cost for the project.

MR. DEMPSEY: Whole project. Well, for the differential, the undergrounding differential.

CHMN STAFFORD: For which route is that?

MR. DEMPSEY: I think whatever they had --

CHMN STAFFORD: The preferred route.

MR. DEMPSEY: It's whatever their estimate was was 1-B or -- they had 1 and 2 and 3, it's B-1 and 3 or 1 and 2.

CHMN STAFFORD: B-4 was the preferred route.

MR. DEMPSEY: Yeah, it's not --

CHMN STAFFORD: Because it's A, B, C, D were the first segments from DeMoss Petrie to Vine and then 1, 2, 3, 4, 5, 6 from Vine to Kino.

MEMBER GOLD: Mr. Chairman, I think what he's referring to is D-6.

CHMN STAFFORD: D-6, is that the one you're referring to?

MEMBER GOLD: That's the one on Campbell.

MR. DEMPSEY: I think it's 1-B or 1-A -- I'm not sure, it's whatever Sargent & Lundy has in their report. I think it's 1 --

CHMN STAFFORD: Okay.

MR. LUSK: If I may, Mr. Chair, I believe the report was comparing B-4 with D-1.

CHMN STAFFORD: Okay.

MR. DEMPSEY: Sorry. Yeah.

CHMN STAFFORD: Please proceed, Mr. Dempsey. And just take a breath --

MR. DEMPSEY: Okay.

CHMN STAFFORD: And slow down a little bit, please.

MR. DEMPSEY: So the question is is this cost -- is this extra cost significant to ratepayers? To answer this question, we need to find an underground

asset depreciation rate, and TEP's ratepayer collection amount. We can also look at TEP's capital expenditures to see whether this is a significant additional cost.

First things first. Let me quickly try to explain depreciation. According to the law, an asset has to be expensed over its useful life, which is in part to protect ratepayers from overzealous utility cost recovery.

It's set by FERC, it's set by the ACC. And depreciation is a moving target. As the technology improves and operators learn to operate it responsibly it can last longer and longer. Notably, recent studies show that current vintage XLPE may last for 100 years or more if it is responsibly operated. 40 years may end up being on the low end for most operators. A 100-year asset life would equate to a depreciation rate of 1 percent. We're not going to use that. We're going to use some APS, some current APS figures.

CHMN STAFFORD: Member Hill, do you have a question?

MEMBER HILL: Yeah. Mr. Dempsey, because this is your exhibit I want to ask this question. I know it was asked of Mr. Jocham. Is this a peer-reviewed research paper?

MR. DEMPSEY: From my understanding it was

presented at a conference and it's from a -- I think Mr. Jocham said it's from a manufacturer. I'm not sure. But --

MEMBER HILL: So it's conference proceedings summary, not a peer-reviewed paper.

MR. DEMPSEY: And it's an engineering -- I don't know if its peer reviewed. I have no idea.

MEMBER HILL: That's just a significant factor as working for a science-based organization. So that data is much more valuable when the industry has done peer review around it. So anyways, that's why I asked the question. I just want to be clear.

MR. DEMPSEY: And I want to be clear that I'm not claiming these are going to last a hundred years. I'm just showing you an example of how depreciation rages can come down over time, as technology improves, as they learn how to -- you know, they learn how to get out defects, you know.

MEMBER HILL: I agree with that. Thank you.

MR. DEMPSEY: Okay. So where was I? According to APS public filings, it depreciated underground conduit at 1.55 percent per year, and underground conductors at 1.33 percent per year. For the sake of conservatism, we will use the higher figure of

1.55 percent.

To avoid arguments about what it should be I want to be clear that if we move it up or down slightly it will fundamentally change our conclusions.

And according to TEP's SEC filings it collected $1.3 billion from ratepayers in 2023. Billion.

In addition, as Erik Bakken said in his testimony, TEP expects to spent $3.5 billion on capital expenditures over the next five years.

So we first multiply the extra costs to underground, which is $19.1 million by this depreciation rate of 1.55 percent to get an annual depreciation expense of $296,000 -- or $296,050.

We then divide this depreciation expense into TEP's annual ratepayer collections of $1.3 billion to get cost as a fraction of ratepayer collections, which is 0.000023 or 23 hundred-thousandths. And I suppose there's some debate as to whether it's hundred thousandths or 10 thousandths.

To illustrate on a hundred electric bill, a ratepayer might pay an extra 2.3 cents. Even TEP's worst-case scenario cost of three times more, even with TEP's worst-case scenario cost of three times more, we're talking about only six or seven cents. TEP recently got two rate increases that increased bills by roughly $10

each, or $20 total. You can read about these in UAZ Exhibits 47 and 48.

According to Erik Bakken's testimony, its $3.5 billion in projected capital expenditures may result in similar rate increases over the coming year.

I think most people in the area would say, "Hey, if you're going to increase my rates $10 every few years I'd appreciate it if you could put a few pennies into protecting the city center and university which is important to bringing in jobs to the whole region."

I say they might pay 2.3 cents more because there are dozens of factors that could offset this increased cost. For example, in its application TEP claims to be retiring 19 miles of 46-kilovolt lines and eight substations. Ratepayers are currently paying for those lines and substations. When they are retired they're removed from the rate base.

It is possible that their removal will save ratepayers more than the cost of this project. This data is not publicly available, so I cannot provide a calculation.

TEP just invested another $10 million and has spent millions fighting Tucson's laws. Those are also cost to ratepayers that I would assume -- have to be recovered for seemingly no long-term benefit.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: One quick question, Mr. Dempsey. When you talk about ratepayers, you mean that all TEP ratepayers including me down in Green Valley should pay for Central Tucson.

MR. DEMPSEY: So I'm going to get into that. But --

MEMBER KRYDER: Well, you already have.

MR. DEMPSEY: Well, I'll get into it -- I'll explain exactly that.

MEMBER KRYDER: Okay.

CHMN STAFFORD: I guess basically in this calculation it assumes that it's spread evenly throughout all ratepayers and not allocated only to city residents. He hasn't made -- he hasn't commented yet whether that's what it should be. That's just his initial starting point for showing the cost of it.

Is that correct, Mr. Dempsey?

MR. DEMPSEY: Yeah. I'll explain. I'll address that exact thought. I appreciate it.

Okay. So.

CHMN STAFFORD: Now, we're on page 46 of your presentation, moving on to 47. Okay.

MR. DEMPSEY: So in addition, recent

industry studies show that the long-term cost savings of underground lines can more than offset the higher upfront cost resulting in a net saving to ratepayers over the life of the underground asset, compared to an aboveground asset. See for example UAZ Exhibit 56.

The biggest long-term cost advantage for underground lines is protection from severe weather and other hazards like wind, lightning, fires, wildlife, trees, accidents, vandalism.

Moreover according to the National Oceanic and Atmospheric Administration, in the last 20 years and after controlling for inflation, the number of severe weather events costing $1 billion or more has tripled. See UAZ Exhibit 13.

Downed power lines also create hazards to people and property as evidenced recently in California and Hawaii, which increases insurance costs. That is why I ask my question about fire, not because I think it is likely but because the cost to insure overhead lines is starting to go up relative to cost to insure underground lines.

You can look at Exhibit -- UAZ Exhibit 14 for a discussion on that.

These risks do not exist at nearly the same levels with undergrounding. According to the studies

over the 60-plus-year life of an underground asset, the cost from repairs and liabilities after only a few severe storms can be substantial, and that is why strategic undergrounding programs are happening all over the country and not just with distribution lines.

Just a moment here. So this is a slide of a few examples of undergrounding programs. Distribution and transmission throughout the country at different utilities. And these studies are a mix of distribution and transmission. It's hard to find ones that are strictly one or the other, but they're really interesting reads.

As one additional example, according to the Energy Information Administration, which is UAZ Exhibit 15, average electricity outage time due to major weather events has been steadily growing. As such, in my professional opinion, underground lines can be justified as a prudent long-term investment regardless of the other line siting factors.

So I'm going to jump ahead here and then I'm going to come back. So --

CHMN STAFFORD: Jumping ahead to which slide?

MR. DEMPSEY: 62.

So in addition, TEP underestimates its risk

of private property owner lawsuits. If a property owner sues for a loss of value, as it has been explained to me, it goes before a jury --

CHMN STAFFORD: Hold on a second here. I'm looking at the -- hang on. The 62 in my tablet doesn't match up to 62 on the screen.

MR. DEMPSEY: So you might -- I think I gave her updated slides. She probably loaded the slides last night or this morning.

CHMN STAFFORD: Okay. Well. It helps to have the same set where we're all on the same page. This is page 61, what's on the tablet.

MR. DEMPSEY: Okay. That's --

CHMN STAFFORD: What's the exhibit that the court reporter has?

MR. DEMPSEY: She doesn't have it yet. She will.

CHMN STAFFORD: Okay. Well, hey, how much -- okay. Let's get --

MR. DEMPSEY: I'm --

CHMN STAFFORD: It's 12:36. I think I'm starting to get hungry here. Let's take the lunch recess and let's get your exhibits sorted out so it's all the same thing. Because we have -- the page, the exhibit that I'm looking at has a missing page.

MR. DEMPSEY: All I did is add this exhibit which is TEP's service area. I mean, this slide. That's the only difference. That's why yours is one more.

CHMN STAFFORD: So go back up to 54.

MR. DEMPSEY: 54.

CHMN STAFFORD: 54. At this point it appears the presentations are the same, it's that you added a new 55 that throws the numbering off.

MR. DEMPSEY: I did.

CHMN STAFFORD: Okay. Let's take the lunch recess. We'll get that sorted out over the lunch break and then we'll come back with you on page -- let's go back to page 54 to make sure we're synced up with the -- so we all have the same exhibit.

MR. DEMPSEY: I was only on 50.

CHMN STAFFORD: Right. But then you jumped ahead and it was --

MR. DEMPSEY: I was going to come back to here.

CHMN STAFFORD: And the number, the break point is 54. So I want to just make sure we're looking at the same exhibit. Because that's going to be difficult with the transcript if it's -- we're talking about one set of pages on the transcript and the actual exhibit that gets filed is a different number.

MR. DEMPSEY: She'll absolutely have the right one.

CHMN STAFFORD: Okay. Let's take a recess till approximately, let's say let's come back at 1:45. We stand in recess.

(Recess from 12:38 p.m. to 1:50 p.m.)

CHMN STAFFORD: Let's go back on the record. Mr. Dempsey, you got your slide show all squared away, ready to go? Please proceed.

MR. DEMPSEY: Thank you. Excuse me.

So this is where we left off, I'm going to start from the beginning.

In addition, TEP underestimates its risk of private property owner lawsuits. If a private property owner sues for loss of value as it has been explained to me, it goes before a jury. And while TEP will obviously claim there is no loss of value, the plaintiff will have their own expert to claim there is a large loss in value.

Now, where the jury will land is anyone's guess. But the idea that it will land at no damage is optimistic at best.

TEP is trying to go through the densest part of town where a lot of investment is happening. What this table is showing you is that if a jury lands at 5 percent property value damage with a corridor width of

600 feet, the extra cost to TEP and ratepayers could be $4 million per mile.

If it lands -- if it lands at a 1,000-foot corridor and 10 percent property damage, the extra cost could be $13.2 million per mile.

I say this not because I know what will happen, but because it is a very large risk that TEP fails to account for. Moreover, property owner lawsuits could slow down the project even further given how narrow the right-of-way is on, for example, Euclid.

A lot of investors and homeowners have invested in these areas because they believe the views were protected from new overhead lines by local laws. If suddenly they have a high-voltage transmission line outside their window or above their house, they may very well sue.

There are dozens of studies on this topic that show damage as high as 20 percent and corridors as wide as 2,000 feet. The higher the population density and value of property, the bigger the risk is to TEP. A study of studies was performed by UNS Electric and is available as UAZ Exhibit 43.

Once again, these property value risks do not exist at least not in any study I have seen with underground lines.

On another note, I want to quickly address the question of ratepayers paying for infrastructure that will not benefit them or that they will not use.

That is TEP's entire business model. Ratepayers in Tucson city limits pay for new or improved infrastructure in Marana, even though they may never go, and people in Marana are paying for loops in east Tucson.

If TEP wants costs to only be borne by a city, it's arguing against its own business model, and for city-run utilities like is done for sewer and water.

Moreover, the Tucson metro is not just the Tucson city limits, it is the unincorporated foothills and all the exurbs and all the cities around Tucson that depends on the city center for jobs and prosperity.

As far as I know the Tucson metro is TEP's entire service area. Protecting the city center and university brings value to the entire region. I believe this is the calculation APS made in Phoenix when it undergrounded 11 miles 50 years ago and decided to refurbish it again today.

And that was made in Tempe adjacent to ASU in the earlier 2000s. And this was all before these places were as dense as they are now. The trend is toward increasing density in city centers and university areas. This is also, I believe, why SRP now deems it

prudent to use utility money to pay for transmission undergrounding even where it is a mere preference. The economic benefits of undergrounding in strategically important areas can pay for themselves multiple times over. Even for the utility.

Given that the cost of ratepayers is insignificant, assets are being retired, underground lines may save ratepayers a substantial amount of money over the next century, and TEP may be massively underestimating its underground costs, TEP's claim that underground lines would, quote, would result in higher rates relative to aboveground lines, is at best a guess.

It may end up being right, but it may also end up being very wrong. And the statute allows for higher spending to protect Arizona's assets.

I focused my testimony on the most important claims TEP makes in its application. In my professional opinion, so many of TEP's cost claims fail to withstand scrutiny that were this an investment before Citigroup or investor client, we would decline to invest in it without major corrections or additional information from arm's length third parties.

The risks of drawn-out litigation and a loss are simply too great. TEP's application fails to respect at least line siting factors 1, 5, and 6. They

make a big deal out of 8, but the cost of complying with local laws are significant neither to TEP nor ratepayers.

As TEP has established, there are a substantial number of city plans and ordinances that TEP hopes it will get excepted from or variances from. TEP is trying to make land use decisions that will significantly affect the property owners and businesses in the most rapidly densifying area of the city for the next 75 years.

And that's just not TEP's role. That is the City's role. The City regularly has large trenching projects on major streets. Route 1 on Campbell works well because it is a six-lane road with a median, and on the west side of the street is a 20-foot or larger setback in some places.

None of these areas have similar width or such large setbacks. Euclid had no setbacks and the adjacent property is the most strictly regulated property in the city.

People and businesses have invested in that historic area because it is so fiercely protected. So factor 1 disfavors the project.

Given decades-old scenic and historic protections in these areas that are fiercely defended and enforced, factor 5 also disfavors the project. Frankly,

if factor 5 is not intended to protect exactly this type of area, then what is it intended to protect?

And if you look at the total environment of the area, which includes substantial infill development, the university and its importance to the state's economy, historic areas, the scenic areas and so much more, factor 6 also disfavors the project.

I asked about blowout, because TEP's project will reduce the amount of a property owner's usable land. If you have a 200-foot-long property and you lose 15 feet, you lose 3,000 square feet. And if you lose 10 stories you lose 30,000 square feet.

These kinds of differences can make or break a project. Transmission lines can also affect whether someone is interested in infill development to begin with. As Mr. Barkenbush testified, UMC Banner invested in a view. Others have and will make the same investment with the expectation that the City will enforce its laws.

Listed here are a couple of recent news articles on high-density development in the area. These are UAZ Exhibits 44 to 46.

TEP has tried to claim there will be a reduction in poles, but it cannot guarantee that, and there may be a significant increase in poles as

communication providers and service drops need new poles.

The city's laws require the undergrounding of new lines, not a reduction in poles. The transmission line is a new line. It's not even clear that reducing pole counts while increasing pole heights is a visual improvement. That's a highly subjective determination. It's a highly subjective determination.

According to the courts, a city is legally allowed to do what the City of Tucson has done in protecting strategically important areas. And these protections perfectly align with the line siting factors.

I can find nothing that says even if you accepted TEP's cost arguments that cost supercedes the other factors. So at best TEP can hope only one of the factors favors the project.

Beyond that, however, under subsection D, TEP is asking that you determine the City of Tucson's laws to be unreasonably restrictive and compliance therewith not feasible in view of the technology available.

The City of Tucson's laws do not prohibit the routing of transmission lines through any of these areas. What they do do, however, is tell TEP that if you want to go through these areas with new transmission lines, you're going to have to go underground.

TEP could have chosen not to go through these long-protected areas for its looping. However, it has done so, and the cost of changing its plans are surely higher than the cost undergrounding the few miles required here.

The City of Tucson's laws are not unreasonably restrictive. Indeed, in my opinion they are completely reasonable given the area and its importance to south Arizona and all of Arizona in its competition with other states for business and tourism. These are not laws that require undergrounding through a cotton field.

Furthermore, the cost is feasible any way you look at it. It is not even a rounding error to TEP's ratepayer collections or projected capital expenditures. Moreover, undergrounding happens regularly throughout the state, even where it's not required by law, and it's successfully recovered from ratepayers as prudent spending.

As Mr. Bakken testified, he's unaware of the ACC ever denying ratepayer recovery for the extra cost of an underground line. I similarly can find no such occurrence.

If, as Mr. Robinson testified, the ratio of transmission to distribution is 15 to 1, then for every

one million in dollars in extra costs for undergrounding a distribution line, $15 million towards undergrounding a transmission line should be recoverable using the same principle.

If cost recovery is indeed a real issue, TEP should be fighting the ACC alongside the City of Tucson for recovery instead of fighting the City of Tucson.

As a legal argument about prudent spending, I believe TEP would win.

I'd like to close -- I'd like to close by emphasizing two prior points, and then suggesting an alternative.

The first point is that the low end of Sargent & Lundy's estimates -- using the low end of Sargent & Lundy's estimates, the differential cost to construct the Midtown Reliability Project underground in the required location is approximately 2.3 cents on a hundred dollar customer invoice.

In our view this cannot be defined as a significant cost, let alone infeasible.

Second point is that there numerous ways to handle the issue of the need for the completion of the project by 2027. There's the halfway solution, for one. Which I talked about at the beginning.

Another way is for TEP to continue to repair the present system for a year or 18 months as it is doing now, which would cost $9.5 million and get us to 2030.

Then there's a third alternative. This third alternative would be for the Line Siting Committee to approve the shortest route which I believe is Route 1-A, and not vote to supersede any local laws. This would give TEP an opportunity to follow the laws without having to start this process all over again.

In my professional opinion, following the law and undergrounding where it requires is a just and reasonable expense as is required by the ratemaking statute for the following reasons:

One, the line siting factors favor protecting the area;

Two, the City of Tucson's laws require undergrounding to protect the area;

Three, the existing case law and now this recently decided case allow cities to mandate undergrounding;

Four, existing ACC precedent and policies allow utilities to recover the cost of undergrounding especially where required by law;

Five, the costs are relatively

insignificant to TEP or ratepayers;

Six, studies show that undergrounding lines can increase reliability and save money over their lifetime;

And, seven, continuing to fight is wasteful and will result in more expense than following the law costs and TEP may lose in the end anyways.

In conclusion, if you do not choose Route 1-A, then you should deny TEP's application so it can find the least-cost underground route through the area or an alternative.

Please deny TEP's request to supersede certain local laws. TEP has not even asked you to supersede all of the possible local conflicts, only some of them.

TEP continues to have huge blind spots to the reality it finds itself in. The most surefire way to push TEP toward a speedy resolution is to deny its request to supersede and encourage it to follow the law. If it had done so from the beginning this project would be nearly done by now.

Thank you for your time.

CHMN STAFFORD: Mr. Dempsey, there's a number of slides left in the presentation. Are you not going to use those?

MR. DEMPSEY: No. Not unless I need to for rebuttal or something like that.

CHMN STAFFORD: Rebuttal?

MR. DEMPSEY: I'm used to giving investor presentations and then you have a bunch of slides in the back that you might have to refer to if a question comes up.

CHMN STAFFORD: If you're going to use them, now is the time to use them.

MR. DEMPSEY: Then we don't -- I'm not going to use them.

CHMN STAFFORD: Okay. Because, like, it's typically only the applicant, the applicant has the burden so they'd get the rebuttal.

MR. DEMPSEY: I mean in response to rebuttals, like if they're asking me questions and I can respond using a slide.

CHMN STAFFORD: Oh, you mean like during your cross?

MR. DEMPSEY: Yeah.

CHMN STAFFORD: Oh, okay. I guess okay. All right. Fine. Any questions from members before Mr. Dempsey's available for cross-examination?

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: A quick question. If I understood you correctly you said this would affect ratepayers in the entire TEP region.

MR. DEMPSEY: That's correct.

MEMBER GOLD: But it will only benefit the ratepayers in the specific areas.

MR. DEMPSEY: That's --

MEMBER GOLD: If there was another option where they to do something, just charge those areas a different rate? What did you mean by that?

MR. DEMPSEY: So, I mean, so I would disagree in the sense that I don't believe it benefits just this area. I believe it benefits the whole region because this area is the heart of the whole region.

So just like as they protected, as APS protected central Phoenix or APS protected ASU, I believe you should protect the university and southern Arizona in the center of town.

And I don't -- I think it's a little bit overstated that it's for the benefit of the people just in this area. I think it's for the benefit of everybody.

MEMBER GOLD: Okay. And you also said that this is something that the utility should pay for, not the City of Tucson, but the utility. And it should be -- it should affect all the ratepayers, then. Would you

just repeat how much you think it should affect the ratepayers?

MR. DEMPSEY: So worst-case scenario is a few cents per month.

MEMBER GOLD: I'm sorry?

MR. DEMPSEY: Worst-case scenario is a few cents per month.

MEMBER GOLD: Per hundred dollars of bill?

MR. DEMPSEY: Yes. Yeah. And that's not including retirement, asset retirement, everything else which would reduce that amount. And also this is simplistic, because it has to be, but, for example, commercial ratepayers pay more than residential ratepayers, so if you're a residential ratepayer it would be less to you anyways just because of the ratios involved.

MEMBER GOLD: Okay. And when --

CHMN STAFFORD: That's if the charge is assessed on a kilowatt basis; correct?

MR. DEMPSEY: Yeah. However.

CHMN STAFFORD: Because, like, yeah, it can be a flat fee or -- typically it's the volumetric charge collects the bulk, so -- and typically adjusters are fueled off the kilowatt hours, the volumetric charge.

MEMBER GOLD: Thank you.

CHMN STAFFORD: So it would vary. If you use more you'll pay more for whatever that charge is.

MEMBER GOLD: Understood. A few cents per month is what he says, so I wrote that down.

MR. DEMPSEY: And can I add to that? So that's actually what the University of Arizona has told me is that they are completely great with undergrounding, they just want to pay it through their rates.

MEMBER GOLD: Okay. Now you said undergrounding along Route 1, is that about 1.8 miles in the commercial area? Campbell.

MR. DEMPSEY: Yeah, it's Campbell, yeah because it's --

MEMBER GOLD: 1.8 miles commercial. What about crossing the other gateway areas? Would you go underground there or would --

MR. DEMPSEY: No, I would assume they would get an exception since probably going underground would be worse than -- because you have to put the risers and everything.

MEMBER GOLD: Understood. So you're pretty much saying only undergrounding in the Campbell gateway area.

MR. DEMPSEY: Yeah, if you choose Route 1-A which I think -- and I say because it's the shortest

route, simplest thing to do for all of this.

MEMBER GOLD: Understood. Route 1-A.

MR. DEMPSEY: And I don't have a strong opinion about after -- like the after -- if they have a different -- I don't have a position on Ring Road and all that kind of stuff. I'm just --

MEMBER GOLD: Understood. Understood. And what are you saying the cost to underground that 1.8 miles will be and how does that compare to TEP's cost estimate?

MR. DEMPSEY: Well, I'm using TEP's cost estimate. I'm using the low end. They only talk about the high end.

MEMBER GOLD: So what was the range?

MR. DEMPSEY: It was -- $19 million is the low end.

MEMBER GOLD: Up to --

MR. DEMPSEY: That's to do the whole thing. I didn't calculate it per section.

MEMBER GOLD: So 19 million for the entire area.

MR. DEMPSEY: The 2.28 miles, which is column 3.

MEMBER GOLD: Oh, it's 2.28 miles.

MR. DEMPSEY: Yeah.

CHMN STAFFORD: You're looking at slide number 37 of UAZ-62; correct?

MEMBER GOLD: That's on page 37. Let me jump over there. I'll get it. Let me go over here. So that's Sargent & Lundy's estimate, underground and overhead combination, 19.14 million as opposed to what was the total cost for just over -- overhead?

I have it. I think I can look that up.

MR. DEMPSEY: Oh, I have it all the way at the beginning.

MEMBER GOLD: So the overhead cost, overhead cost was -- that's per mile. Overhead. Where's overhead cost?

MR. DEMPSEY: 11.8. That's for Route 1. I don't know.

MEMBER GOLD: For Route 1, so it's versus 11.8.

MR. DEMPSEY: Yeah. The 19 is subtracting out the 11.8.

MEMBER GOLD: So if they were to go strictly overhead it would be 11.8 million on this route. But to go --

MR. DEMPSEY: Well, so wait. Let me -- let me correct you. Let me correct myself. That's the whole Route 1. We're only talking about undergrounding a

portion of Route 1.

MEMBER GOLD: Yes.

MR. DEMPSEY: So that's why you have to do it per mile.

It's only a little more than half.

MEMBER GOLD: Okay. Let me rephrase it, and anybody who can answer this question correctly, please help me.

To underground Route 1, just Route 1, okay, that's just the southern portion, green on my place, would cost 19 million. Is that correct?

MR. DEMPSEY: According to the low end of their estimates.

MEMBER GOLD: So that's TEP low end.

MR. DEMPSEY: Yep. If it was based on our analysis it would be even lower than that. But I used their numbers just to be conservative.

CHMN STAFFORD: You're talking about the numbers on Slide 16 of UAZ-62; correct? Okay. Now you're moving to Slide 17.

MR. DEMPSEY: This is the one we're talking about. I was just telling you how I got the 4.1 million.

MEMBER GOLD: Okay. Well, you're doing per mile and I'm trying to keep apples with apples.

MEMBER KRYDER: Mr. Chairman.

MEMBER GOLD: So what I want to know is if you didn't underground it, if they get variances and they can go strictly aboveground on that same route, how much would that cost? Just Route 1. I saw a chart that had it before. I think it's presented by TEP.

MR. DEMPSEY: I think right there it says 6.1. 6.1.

MEMBER GOLD: So overhead total versus 6.1 --

MR. DEMPSEY: It's right here.

MEMBER GOLD: -- million, so the difference is 13 million.

MR. DEMPSEY: Well, wait a second. I'm sorry. It's right here. 9.3 would be the overhead cost through that area.

MEMBER GOLD: Let me change it to 9.3. So that would be roughly $10 million difference. And you're saying --

MR. DEMPSEY: No, so the difference is, so we're subtracting the total cost is 28 and we are subtracting 9 to get to the 19.

MEMBER GOLD: Okay. And if you didn't do the undergrounding it would be 9.3? If it was all over.

MR. DEMPSEY: Yeah, according to their estimate, yeah.

MEMBER GOLD: Okay. So that's a difference of 10 million. So you're saying that the 10 million would involve pennies per hundred dollars or for kilowatt hours.

MR. DEMPSEY: Yes, pennies or less, yes.

MEMBER GOLD: And it would avoid lawsuits and it would avoid breaking all the laws. But you didn't address disruption to the businesses, to the street. I mean --

MR. DEMPSEY: That's fair.

MEMBER GOLD: -- and the time frame. So TEP said roughly one mile per -- per year, one mile per certain amount of months. Do you remember that number?

MR. DEMPSEY: A hundred feet a day, I think.

MEMBER GOLD: So there's 5,000, roughly 5,280 feet per mile. A hundred per day would be 528 days to go one mile.

MR. LUSK: I believe --

MEMBER GOLD: Am I correct so far?

MR. LUCK: If I may, Roi Lusk, City of Tucson. If I may, Member Gold, I believe the testimony yesterday was it's approximately 95 days to go 1.8 miles.

MEMBER GOLD: Was that for overhead or for underground?

MR. LUSK: That was underground at a hundred feet a day for the excavation.

MEMBER KRYDER: Three months?

CHMN STAFFORD: Can you --

MEMBER GOLD: Wait a second. A hundred feet per day is 5,280 feet per mile. If you take off two zeros --

MR. LUSK: It's 52 days.

MEMBER GOLD: 5,280.

CHMN STAFFORD: That's right. 5,280 divided by 100 is 52.8.

MEMBER KRYDER: 52 work days.

MEMBER GOLD: So 52 work days assuming no problems. Correct?

MR. LUSK: If you want to make that assumption, sure.

MEMBER GOLD: We'll, let's assume we're going to look at a best-case scenario. So you would be disrupting Campbell Avenue for roughly 52 days. It could be double that. It could be is a hundred days. But still doable in the time frame. They don't have to go to court. They don't have to worry about going through neighborhoods with lawsuits that were possibilities.

The big drawback is they're spending an extra $10 million.

MR. DEMPSEY: 19.

MEMBER GOLD: Up front, because that's the numbers I just came up with. Now, they can save it or portions of it over the long run with maintenance and everything else. But we're still talking $10 million to the utility to put this in.

MR. DEMPSEY: Right.

MEMBER GOLD: And taking roughly -- let's look at worst-case scenarios and triple that. And that would be 150 days. So that would be -- I'm going to say six months is a worst-case scenario because you not only have to do it, you've got deal with problems, you've got to deal with -- what law -- what legal ramifications are they going to have or could you foresee them having if they have to tear up Campbell Avenue, one half of it at a time for roughly half a year?

MR. DEMPSEY: I'm not -- I'm not familiar -- I wouldn't expect -- I would expect City --

MEMBER GOLD: Well, how did the store owners react in the cities that did it? Were they comparable size streets in business districts?

MR. DEMPSEY: I think so.

MEMBER GOLD: I saw one thing up there that was.

MR. DEMPSEY: Yeah, I think some of them in

downtown Phoenix, or whatever, central Phoenix were smaller streets, yeah. It's -- it would be disruptive, I don't deny that.

MEMBER GOLD: So you have a disruptive factor there going underground.

MR. DEMPSEY: Right.

MEMBER GOLD: And also we heard testimony earlier that Tucson would have to job this out. They couldn't do it themselves.

MR. DEMPSEY: Yeah, and that's what they -- all the companies do that. Not just TEP.

MEMBER GOLD: And your $19 million includes jobbing it out.

MR. DEMPSEY: I assume so. It's their --

CHMN STAFFORD: You're using the figures from the Sargent & Lundy estimate, then?

MR. DEMPSEY: Yes.

CHMN STAFFORD: Whatever assumptions they had, he's using the same ones if he's using their numbers.

MEMBER GOLD: Okay. So the advantage of this is you're not breaking any of Tucson's laws, it's underground.

The disadvantage of this is it costs a lot more, takes a lot more time, and is it -- do they still

have to do inspections on underground stuff periodically that will disrupt traffic?

MR. DEMPSEY: Well, I believe -- I believe it's not all that different than a pole -- inspecting a pole or --

MEMBER GOLD: You don't got to close the street to inspect a pole, but if you got to go into those tunnels that are in the streets, you have to close the street.

MR. DEMPSEY: This is, to me is more an engineering question because there are parts of Campbell where I'm not sure they'll even have to put them on the street, the vaults and stuff may be in a side, in the setbacks. So it's possible they won't have to close the streets.

MEMBER GOLD: Are you saying that the undergrounding can be done in setbacks and not on the street?

MR. DEMPSEY: It's possible. And some of those setbacks on Campbell are very big.

MEMBER GOLD: I'm not an expert.

MR. DEMPSEY: No.

MEMBER GOLD: No knowledge of this. I'm relying on you as the expert.

MR. DEMPSEY: So it's possible. The

setbacks are very large in some of the areas. Some of them, not so much, but maybe they can, you know, put the vaults in those larger areas.

MEMBER GOLD: Let's assume we're going into the setbacks, then you have to have arrangements with all the people who own the store fronts.

MR. DEMPSEY: They're not -- it's residential. There's nothing. It's just a fence.

MEMBER GOLD: Campbell Avenue --

MR. DEMPSEY: Between Broadway and 6th, yeah.

MEMBER GOLD: It's just residential?

MR. DEMPSEY: Yeah.

MEMBER GOLD: Are you -- are you talking about undergrounding in the residential area or the commercial area? Now I'm confused.

MR. DEMPSEY: Just Campbell.

MEMBER GOLD: All of Campbell?

MR. DEMPSEY: From Broadway to Banner.

MEMBER GOLD: So from Broadway to Banner to the best of my recollection is all commercial.

MR. DEMPSEY: I guess it depends on which side of the street you're on and stuff like that. There's residential, there's commercial. It's a mix of things. There's the University of Arizona.

MEMBER GOLD: Well, the university is commercial.

MR. DEMPSEY: Okay. That's a huge -- I mean, that's the biggest stretch. You're correct. So from -- yeah, I would say yes, okay, I see where you're going -- what you're -- where you're at, yes. I would say the majority of it is commercial.

MEMBER GOLD: Okay. So it's commercial up until you get to the university, but I thought we heard testimony earlier that said by the university area the streets aren't wide enough, there's not enough area to go underground there because there's no setback.

MR. DEMPSEY: Well, that's the area they've been proposing for the last four years to do it in. And I -- I mean I -- it's the widest area through this -- it's the widest, as far as I know it's the widest -- widest right-of-way that goes north-south. Like I think Euclid's like half the size of --

MEMBER GOLD: Oh, I agree. Euclid is half the size.

MR. DEMPSEY: Yeah.

MEMBER GOLD: All right. I think you've given the pros of undergrounding and some cons. But you've given a great detail of information. Thank you for your expertise.

MR. DEMPSEY: To address one of your questions or your comments. So I believe what TEP is saying is that there's going to be disruption, they want to underground the distribution so there's going to be disruption either way in terms of the roadway.

MEMBER GOLD: Well, what -- TEP doesn't want undergrounding, TEP wants to go aboveground for the whole thing. Except they're not going to disrupt traffic to nearly the extent that undergrounding will if you're doing it on the roadway. That's what I heard.

MR. DEMPSEY: Except for distribution, they were going to underground distribution as well.

MEMBER GOLD: I don't think distribution goes on the street. I think distribution goes from their pole in.

CHMN STAFFORD: Member Gold, I recall the testimony being that they're -- where they're going to erect the high-voltage transmission line, the distribution lines that would -- that it would run over would be undergrounded. So they're going to underground the distribution lines in the same locations where they'd be putting overhead high-voltage line.

MEMBER GOLD: Yes, I understand that.

CHMN STAFFORD: Because a big chunk of the 47kV will be eliminated. That will be taken away, and

what's going to be undergrounded won't be 46kV, it will be I believe 14kV or 14kV capable. But I think the distribution system -- and I'm just going off memory here -- I think is about 4kV. And that's what they'll operate at, but it will be capable at 14kV to accommodate the anticipated growth.

MEMBER GOLD: Understood. But that's going to be not in the street. That's going to be from the position of the utility poles toward the customers.

CHMN STAFFORD: Someone is going to run parallel to the transmission lines, I understand.

MEMBER GOLD: Again, it's not going to --

CHMN STAFFORD: It won't be attached to the transmission lines but it will be undergrounded. But, again, I think --

MEMBER GOLD: Will it be in the street or will it be in the setback?

CHMN STAFFORD: It depends on where, which street we're talking about, I think.

MEMBER GOLD: I'm talking only Campbell.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I'd like an answer to this question, but I think we need to hear it from TEP. I think the franchise agreement will dictate to some extent

where it's going to be, and that is typically in the road right-of-ways of the city. So it may be in the road right-of-way.

CHMN STAFFORD: Right. I would anticipate that. Do we have any other further questions for Mr. Dempsey?

And then because we're not going to start questioning TEP yet now, because they're going to have their chance to cross-examine him and a lot of your questions may probably be answered during that.

But -- and then I think at some point after, you know, all the parties have put their direct cases on we'll have to recall witnesses from TEP and possibly other parties as we start to kind of talk through the issues and figure out the course of action that this Committee will take.

But let's finish up with questions for Mr. Dempsey.

MEMBER GOLD: And I have one more question for Mr. Dempsey.

CHMN STAFFORD: Okay.

MEMBER GOLD: Based on what you just brought up.

Mr. Dempsey, the distribution cables that are going to be undergrounded, are they going to be in

the street or are they going to be on the sidewalk, or are they going to be in some area closer to the buildings? From your experience with the other cities.

MR. DEMPSEY: My understanding is it would be where they currently are, they would just go underground. But I don't -- that's something they would have to answer. I don't know.

MEMBER GOLD: Then I'll call that question later.

MR. DEMPSEY: I think -- again, I think what the answer would be, I'm guessing is they have to do detailed engineering, because they don't know what obstacles they have and they have to figure all that out.

So I don't even know that they know yet exactly -- I think they would try to put them in the setbacks, but will they be able to? We don't know what's there.

MEMBER GOLD: I'll ask TEP when we get a chance later. Thank you.

CHMN STAFFORD: Member Mercer, you had a question?

MEMBER MERCER: Yes, it's in the same line. So the distribution lines versus the whole project, I understand the underground is a humongous task, so would it be different for the distribution lines, like a

smaller scale?

CHMN STAFFORD: I believe, the testimony that I recall is that it costs less and is less of a hassle to underground distribution as opposed to high-voltage transmission lines.

MR. DEMPSEY: It was still only a hundred feet a day.

CHMN STAFFORD: I don't recall what the rate for the distribution undergrounding was, but I'm sure it has -- they both are, they move more slowly than putting -- installing overhead lines. I'm pretty sure that was what the testimony was.

MEMBER MERCER: I would like a clarification for that.

MS. HILL: I'm sorry, what was the clarification?

MEMBER MERCER: The difference between the distribution lines versus the high voltage.

MS. HILL: Do you mean in terms of time or in cost?

MEMBER MERCER: Both, and construction.

CHMN STAFFORD: I think we were talking about the difference in undergrounding distribution as opposed to high voltage.

MS. HILL: Okay. So I do -- just for the

cost, just to give you a very quick, Mr. Robinson testified that undergrounding distribution is typically, I think he said one and a half to three times the cost of an overhead distribution.

And in terms of timing, I don't think that we have specific testimony on that, so we could always recall.

And then the differences, we did have a discussion yesterday about it, and you're talking about in terms of the actual mechanics of it, just so I can make sure that we're efficient.

MEMBER MERCER: The disturbing of the land or --

MS. HILL: Sure. Okay. All right.

CHMN STAFFORD: Yeah, I seem to recall Mr. Robinson testifying about the difference in depth, required depth to install distribution as opposed to high voltage.

MS. HILL: Yes, and there was also some testimony about width, I believe, but we can -- we can bring them back and do a shorter, more succinct version.

CHMN STAFFORD: All right. Well, with that, Mr. Dempsey is available for cross-examination beginning with the applicant. Looking at you, Ms. Grabel.

MS. GRABEL: Thank you, Mr. Chairman.

CHMN STAFFORD: Are you going to take it?

MS. GRABEL: I am, yes.

CROSS-EXAMINATION

BY MS. GRABEL:

Q. If we could go back to Slide 16 on UAZ-62. You were just testifying and kind of having a colloquy with Member Gold about these figures. You pulled the $4.1 million per mile from the information provided by TEP; is that correct?

A. Yep.

Q. And TEP's table of overhead construction that results in a $4.1 million per mile figure includes right-of-way acquisitions and the cost of burying distribution lines; correct?

A. Correct.

Q. Okay. And then you used the Sargent & Lundy cost for undergrounding; is that correct?

A. Correct.

Q. And do you recall that those lines do not include the cost of right-of-way and burying the underground distribution lines?

A. Right. They're the only numbers that I have.

Q. Okay. So this is not an apples-to-apples

comparison; correct?

A. It's not apples-to-apples but it's also not that different, because you shouldn't have a lot of additional costs in right-of-way.

Q. Well, do you recall where the discussion yesterday that the overhead construction drops to $1.2 million per mile if you do not include the right-of-way and burying the distribution lines belowground?

A. Say that again.

Q. The $4.1 million per mile drops to 2 -- I mean $1.2 million per mile if you do not include the right-of-way acquisition cost and the cost to bury the distribution facilities?

A. I don't recall.

Q. That's in the record.

A. Okay. Yeah. I'm not representing that the Sargent & Lundy numbers include right-of-way acquisition.

Q. But your analysis does not compare apples-to-apples and therefore does not give this Committee an accurate depiction of what the costs would be?

A. Well, the difference is that the right-of-way cost relative --

Q. It's a yes-or-no question, Mr. Dempsey.

A. Can I explain?
Q. Just answer yes or no first.
CHMN STAFFORD: Please answer yes or no.
MR. DEMPSEY: What was the question?
BY MS. GRABEL:
Q. Would you agree that the cost because you are not using an apples-to-apples comparison, you did not give the Committee an accurate depiction of the cost per mile?
A. No. I disagree.
Q. Okay. We'll let the Committee decide.
CHMN STAFFORD: Ms. Grabel, is there a specific exhibit you can refer to with the numbers you're talking about?
MS. GRABEL: Certainly, in our discussion yesterday -- you can look at the Sargent & Lundy report which actually gives this analysis. I believe that's TEP Exhibit 17.
And we clarified on the record yesterday that the Sargent & Lundy report which results in the multiplier of 14 percent to 22 percent difference uses figures both for overhead and underground construction that do not include right-of-way acquisitions or the cost of burying distribution lines belowground.
And that analysis shows the Sargent & Lundy

costs depicted here, and a $1.2 million per mile figure for overhead construction. That's apples-to-apples, just comparing purely underground for the same distance of segment as the overhead.

What is depicted on Mr. Dempsey's slide is mixing the two. So they're using the Sargent & Lundy underground fee, which is low because it doesn't include right-of-way and buried distribution lines, and the overhead transmission, which is high because it does include that amount. And in doing so, because they're not using apples-to-apples figures, the analysis misleads this Committee.

CHMN STAFFORD: Okay. Was that also addressed in your Exhibit 31?

MS. GRABEL: It was, yes.

MEMBER HILL: Mr. Chairman.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Okay. I hear voices, let's start with order they came. I'll start with Member Hill.

MEMBER HILL: I was going to let Little go first.

I think this goes to Mr. Gold's question about where construction will happen. I would like to understand from TEP, do they need to purchase more right-of-way as a function of overheading, because

undergrounding could actually go in the roadbed and be part of the franchise agreement, but I'm wondering if because the poles need to be on the side of the road, they might actually need to acquire a little -- I don't mean to speculate here. I just kind of want to understand what we're talking about in terms of right-of-way.

So maybe the undergrounding number, we're not comparing apples-to-apples, I agree. But maybe the undergrounding number is much closer to being accurate because they don't need as much right-of-way.

So I just want to understand that a little bit better. And when we bring folks back it would be helpful to walk through that.

MS. GRABEL: Member Hill, I do think there was testimony put on the record yesterday, but we can certainly reiterate it and answer your question.

MEMBER HILL: Thank you.

MS. GRABEL: You're welcome. Member Little, did you have questions?

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Yes, I just -- using the information on TEP-31, which was the total cost of various routes summarizing and comparing those overhead or total cost as proposed with overhead construction or

total cost underground -- undergrounding those areas that were -- are required or may be required to be undergrounded by the University Area Plan, using those numbers and using the same methodology that underground Underground Arizona used, because those numbers are a great deal higher, they do include, I understood to include right-of-way, to include all of those kinds of costs.

I come up with about between a six- and seven-cent increase on bills. And, you know, I'm going to caution that that is just using his methodology and one never knows exactly in ratemaking how costs are going to be allocated. But using his methodology and using TEP's numbers, it is about a six-cent increase on a hundred dollar bill.

CHMN STAFFORD: Thank you, Member Little. Do you have additional questions?

MEMBER LITTLE: I do not.

CHMN STAFFORD: Okay. Thank you.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: All right. Ms. Grabel, please continue.

BY MS. GRABEL:

Q. So Mr. Dempsey, if I heard you correctly, you suggested that the area from along Campbell from Broadway

to Grant is the heart of the whole Tucson region. Did I hear your testimony correctly?

A. From Broadway to Grant it's -- yeah, it's the university area.

Q. And you said that's the heart of the whole Tucson region?

A. Yes. It's the center.

Q. Well, would you agree that South Tucson also has culturally rich areas?

A. I definitely was not saying there are not culturally rich areas in other parts of Tucson or the area.

Q. What about the east side of Tucson where there are national parks?

A. Absolutely.

Q. You also suggested that TEP is fallacious in saying that utilities typically take the position that the cost of undergrounding should be borne by third parties. Do you remember saying that?

A. I said -- yes, I don't know that I said it was fallacious.

Q. You said it was not true; correct?

A. Yes. It does not seem to be common. I mean, does not seem to be. It's a mix.

Q. And you used the SRP HIP project as an example.

That's line siting case number 195; correct?

A. Yes.

Q. Okay. I'd like you to turn -- have we handed out TEP-34? Okay. I'd like you to take a look at TEP-34 which is being distributed right now.

And this is the transcript from the SRP High Tech Interconnection Project, which is case number 195. Let the Committee members get it. And if you'll turn to page 233 of this excerpt, and I'm going to start reading from line 23, and this is the testimony of Zack Heim.

And Mr. Heim says, "SRP is funding the transmission line costs associated with this project. Now, when I talk about transmission line costs what I'm saying is that we are funding the overhead equivalent cost of transmission, so if we were going to build the project overhead, that's the cost that SRP is funding.

"As we talk about undergrounding, SRP's standard and position on this project and any project prior to this one has been that we are happy to construct projects underground if a third party will fund the cost difference for that undergrounding. So that's what we'll see on this project as well."

And he goes on to discuss the contributions from Intel, which was $36 million and from the City of Chandler, which was $31 million.

Did I read that correctly?

A. I believe so. I wasn't following. I was listening.

Q. Do you believe that SRP would have testified incorrectly under oath?

A. If SRP is claiming that --

Q. Mr. Dempsey, that was also a yes-or-no question.

A. Am I -- I'm not allowed to expand on any answers?

CHMN STAFFORD: Answer yes or no first and then --

MR. DEMPSEY: So ask the question.

BY MS. GRABEL:

Q. Do you believe the SRP was misstating its -- lied under oath, essentially?

A. I don't believe they lied. I believe they're -- it's -- it's -- SRP pays for the -- it's not Chandler paying for it. It's SRP paying for it.

Q. Okay. You also give many examples of APS 69kV lines as examples of how the utility funds the underground construction; correct?

A. Say that again.

Q. You also give many examples of APS 69kV lines as examples of how the utility pays to underground the construction of a project; correct?

A. I don't know that I gave the examples in that context. I was using them for a comparison. What I was saying was that I couldn't find evidence of all of them being paid for by third parties. It didn't --

Q. Okay. Well, if, as part of your exhibit, I guess you haven't offered it, but Exhibit 19 and Exhibit H to your Exhibit 19, you include a discussion of the Raintree 69kV project which is the business project from 2018 that's discussed on your tables. Are you familiar with that project?

A. Yes, I am.

Q. And that exhibit shows that the cost differential between undergrounding and overhead was actually paid for by an underground improvement district?

CHMN STAFFORD: One second, Ms. Grabel. I don't have -- there is no UAZ Exhibit 19.

MS. GRABEL: That's because he did not admit it.

CHMN STAFFORD: He hasn't offered it. It wasn't -- it's not even on the list -- the list of exhibits that I have.

MS. GRABEL: Is it Exhibit 11, perhaps? I might have misstated what the number was.

MR. DEMPSEY: I'm familiar with it.

//

BY MS. GRABEL:

Q. Okay. So the project I'm talking about you're familiar with?

A. Yes.

Q. And would you agree that the cost difference between aboveground and belowground construction was paid for by an underground improvement district?

A. Yes, it was.

Q. Okay. So your own exhibits do provide evidence that other utilities have required third parties to pay for undergrounding?

A. Yes. It's happened all different ways.

Q. Did you and your neighbors participate in any discussion regarding funding forming an underground improvement district for this project, the Midtown Reliability Project?

A. I don't recall. I don't believe -- I'm not sure. I don't remember discussing it myself. I know there's been a lot of discussions and I was busy and I was not involved in everything.

Q. If you're interested in undergrounding this project, is that something you and your neighborhood would be interested in discussing?

A. The fundamental problem with that is that the University of Arizona pays the largest property tax or is

the largest landowner and they are unwilling to do that.

Q. Okay. You also provided testimony earlier today about the costs of the SRP HIP project, so, again, that's case number 195, of 10 to $15 million per mile. Do you recall that?

A. I said that? You mean, I showed what Zack Heim said?

Q. Correct?

A. Yes.

Q. Okay. Do you recall that that project was built in 2021?

A. I don't. That's maybe when it was approved. I don't know if it's finished yet.

Q. You're absolutely right. That's when the approval was, 2021.

Do you recall testimony from Mr. Jocham about the substantial increase in the cost of copper from 2018 to today?

A. Yes.

Q. In fact, the cost was $2.50 per pound in the 2018-2020 time frame and the cost is now $4.59 today; correct?

A. I don't know.

Q. Okay. You defer to Mr. Jocham in that?

A. Not necessarily. I'm not sure I have -- I

actually have a chart, but I -- I don't know the exact amounts.

Q. Okay. Do you recall Mr. Jocham's testimony that just the CPI increased general inflation from 2020 to 2024 is about 21 percent?

A. I have no idea.

Q. Okay. So costs will have increased from the 2018 to the 2020 time frame to today; correct?

A. Yes.

Q. So if we'll turn to your Slide 30. You refer to -- sorry. Thank you.

So this plot chart you kind of went back a few times and this is -- the figures calculated here on Slide 30 are based on several older 69kV lines; correct?

A. I don't know what you mean when you say older. These are all brand new. These all have been put in in the last five years.

Q. Okay. Let's go back to maybe, is it 27 that shows the projects that are the basis of that chart? Maybe go back again. There's another slide. Maybe you can help me, Mr. Dempsey. Which is the chart that shows the projects that --

MR. DEMPSEY: Can I control or no?

BY MS. GRABEL:

Q. Sure.

A. Does it let me?
Q. Here we go. Is that it?
A. I think so.
Q. Okay. So those are the various projects and it looks to me that the years of those projects vary, range from generally 2018, 2019, and 2020 time frame?
A. Right.
Q. With just a couple in 2023 and 2024; is that correct?
A. Correct.
Q. Okay. And most of those, at least the first one, two, three, four, five, six, seven, if my eyes are correct, are 69kV lines; correct?
A. Correct.
Q. And would you agree that a 69kV line is much smaller than a 138kV line?
A. Yeah. I guess. It depends on the -- I guess you could have a 69kV kc -- 6,000 kcmil. I don't know. That's -- actually I don't know the answer to that question.
Q. Okay. So in your website you refer to the business project 2018 case, and if you kind of dig into the links there, that project uses 2500-kcmil cables. Are you familiar with that?
A. A 2500 kcmil would be less.

Q. Okay. Great. And this project uses two 6,000-kcmil cables; correct?

A. Yes. As proposed, yeah. I mean, you could presumably do less than that if you can -- you don't have to go as deep as worst case.

Q. Okay. Do you have any reason to disagree with testimony that larger cable is more expensive than smaller cable?

A. No.

Q. Did you hear Mr. Jocham's testimony that 69kV cables are more standard than 138kV cables?

A. Yes.

Q. Any reason to disagree with Mr. Jocham in that regard?

A. No.

Q. And did you hear Mr. Jocham's testimony that 69kV cables can be installed by utilities and don't require installation by a specialized contractor?

A. That's one thing he said. He also said that he wasn't -- he had no direct knowledge --

Q. Do you have any reason to dispute that statement?

A. He backed out of that statement himself.

Q. The cost of underground projects depend on several factors such as topography and cable size;

correct?

A. Yes.

Q. So you pay more for a project if you need more current; right?

A. I would assume so, yes.

Q. So in that regard, the project size is not linear as you depict on -- or the project cost, rather, is not linear as you depict on Slide 30?

A. No. Absolutely not. It's -- it's a range.

Q. Thank you. So you also used in your cost analysis an APS project in which APS is replacing the cable on a 230kV line in the downtown Phoenix area. Do you recall that project?

A. Yes.

Q. Would you agree that that underground line going through downtown Phoenix is already installed?

A. Yes.

Q. Would you also agree that the piping is not going to be replaced as part of that project? It's just the conduit?

A. That's actually -- that's part of the project they're looking at, whether the piping has to be replaced in sections, or repaired. That's part of the expense.

Q. Are the roads going to be ripped up and --

A. It's possible.

Q. -- redo all that civil work?
A. It says on the page that it's possible, if they have to fix any pipe or replace any pipe.
CHMN STAFFORD: It says on what page?
MR. DEMPSEY: On the APS project page.
CHMN STAFFORD: And what exhibit is that?
MR. DEMPSEY: I don't know if it's an exhibit.
BY MS. GRABEL:
Q. The estimate that they would have provided to FERC would not have included costs that did not know whether they would apply. Would you agree with that?
A. They don't provide estimates to FERC. Those are actual costs.
Q. But those wouldn't have included costs that they had not yet incurred because they didn't know whether they existed; correct?
A. No. I don't believe so.
Q. Okay. You gave a lot of legal testimony in your testimony earlier today. You're not a lawyer; correct?
A. Nope.
Q. Okay. You testified that the neighborhood and area plans in Tucson require undergrounding. Did I understand you correctly?
A. Say it again.

Q. Sure. You testified, I believe, that the neighborhood plans and the area plans in Tucson -- some of them, for example, the University Area Plan and the Sam Hughes Neighborhood Plan require that the Midtown Reliability Project be undergrounded?

A. Yes. In some circumstances, absolutely.

Q. Okay. Did you hear the City of Tucson's testimony this morning that the University Area Plan does not have the force of regulation without being included as part of a City of Tucson land use decision such as a zoning change?

A. Yes.

Q. Do you have any reason to dispute the City's interpretation of its plan?

A. That's not all he said. He said a lot more than that.

Q. He answered my question in a yes or no fashion.

A. He also said that the -- so TEP needs a special exception process for Vine. It also might need variances. Those special exception processes and variances bring in the plans. If you don't need to do any of that, then, yeah, they probably wouldn't matter. But you do have to do that under your current design.

Q. Did you hear testimony, Mr. Dempsey, from Mr. Bryner on Monday that no zoning change is required

for the Midtown Reliability Project?

A. You need a special exception for Vine Substation.

Q. A special exception is not a zoning change, is it?

A. I don't know.

Q. Okay. You also gave an estimate of a ratepayer impact. Do you have any experience in cost of service ratemaking?

A. No, I don't. I have experience with depreciation. I don't know that I have experience with what you just said.

Q. Cost of service ratemaking. Do you have any experience calculating utilities' revenue requirements?

A. Yes.

Q. As part of a rate case proceeding?

A. No, not as part of a rate -- as part of building a model of a utility company for an investment bank.

Q. Do you have any experience in allocating the cost of service to various classes?

A. You mean just normal business? Company operations? Yes.

Q. No, I mean cost of service allocation within a ratemaking context for utilities.

A. I'm not sure I understand the question.

Allocating cost is something that's done commonly. I don't know why it would be any different in ratemaking.

Q. It's very different in ratemaking.

A. Well --

Q. Do you have any experience calculating the operation and maintenance costs that goes into rates in a ratemaking context?

A. Say it again.

Q. Do you have any experience calculating the operation and maintenance costs that goes into rates in a ratemaking context?

A. No, I do not.

Q. Okay. Your experience is in private equity. Is that correct?

A. Some.

Q. Would you agree that that's a lot different from a regulated environment where all the books and records of the utility are subject to scrutiny from, in this case, the Arizona Corporation Commission and the Federal Energy Regulatory Commission?

A. Not necessarily, no.

Q. Okay. You gave engineering testimony as well. You're not an engineer, are you?

A. I am not an engineer.

Q. Okay. My last question. Do you see any benefit

to Tucson communities relating to TEP's commitment to underground the existing distribution and communication infrastructure as part of this project?

A. If you get all the exceptions and everything else, then that's better than not having that, yeah.

MS. GRABEL: Thank you. Nothing further.

CHMN STAFFORD: All right. Mr. Lusk -- oh, excuse me. Ms. De Blasi. I think you already said you don't have any questions.

MS. DE BLASI: I don't have any questions. Thank you, Chairman.

CHMN STAFFORD: Yeah. Mr. Lusk, now it is your turn.

MR. LUSK: Thank you, Chair. If I could just have a moment. I'm trying to see if I have any questions.

CHMN STAFFORD: Well, let's take a brief recess while you're getting set up.

MR. LUSK: I don't think I have any questions.

CHMN STAFFORD: Oh, no questions. All right. Well, that concludes Mr. Dempsey's testimony. Do you have any redirect, Mr. Dempsey?

MR. DEMPSEY: The only few things that I would say is, I guess it's TEP Exhibit 34 or 31, it's

hard -- so I -- as Member Hill mentioned the assumption is that if you underground a transmission line you can mostly use the right-of-way. You don't have to acquire private property, you use the road. Because you can use the whole road; right? Essentially.

And obviously you don't want to use the whole road, you try to use a part of it. So you save a lot of land costs or property acquisition costs.

So the assumption -- so, yes, my numbers don't have that because their numbers didn't have it. They now have these updated numbers that I didn't have time to go through and figure out, like, they're using the high end of range. I couldn't figure all that out right away.

It wasn't in any way -- I don't think our numbers at all are misrepresentative or misleading, if you add a half a million dollars or a million dollars it doesn't change fundamentally the case that I've made. So that's all I have.

CHMN STAFFORD: All right. Let's -- for your exhibits, let's see here. I think the ones I've seen referred to that we should admit I guess UAZ-1 through 17, those were all addressed in your presentation. I will admit UAZ-1 through 17.

(Exhibits UAZ-1 through UAZ-17 were

admitted.)

CHMN STAFFORD: You didn't reference your Exhibit 18.

MR. DEMPSEY: No, I don't need --

CHMN STAFFORD: Yeah.

MR. DEMPSEY: Go ahead.

CHMN STAFFORD: You didn't reference your Exhibit 18; correct?

MR. DEMPSEY: No.

CHMN STAFFORD: And then for 19 you didn't offer it.

MR. DEMPSEY: No, we -- no.

CHMN STAFFORD: And then UAZ-20 and 21, I didn't --

MR. DEMPSEY: UAZ-21 we have used elsewhere, others have used it. UAZ-20 we have not used.

CHMN STAFFORD: Was UAZ-21 -- let me refresh my memory here. I think that was --

MS. HILL: The franchise agreement.

CHMN STAFFORD: Was that -- was that a TEP exhibit or was that a --

MS. GRABEL: No.

CHMN STAFFORD: It was not.

MR. DEMPSEY: I believe they referenced it or somebody referenced it.

CHMN STAFFORD: Is it the existing one or is it the Prop 4 --

MR. DEMPSEY: It's the year 2000 one, yes, it's the existing one.

CHMN STAFFORD: It's the existing one?

MR. DEMPSEY: Yes.

CHMN STAFFORD: Okay. I don't think that one's been referenced. The one that the -- the proposal that was rejected by voters, that was an exhibit from the City.

MR. LUSK: That's correct.

CHMN STAFFORD: But this one --

MR. DEMPSEY: This is the current franchise agreement, yes.

CHMN STAFFORD: Okay. So that's your 21?

I guess we could admit that, I guess. It's a copy of the franchise that's currently in effect; correct?

MS. GRABEL: Yes, it's currently in effect.

CHMN STAFFORD: Okay.

MR. LUSK: I think we can stipulate to the admission of that exhibit.

MS. HILL: Right. Just in case there is a Committee member that has a question about it.

CHMN STAFFORD: Right. And I'm thinking

it'll probably come up at some point in the Committee's discussion of the matter. They may have questions. So I'll admit UAZ-21.

(Exhibit UAZ-21 was admitted.)

CHMN STAFFORD: Let's see. So then UAZ-22, that one was referenced.

MR. DEMPSEY: I -- I believe that TEP referenced it.

CHMN STAFFORD: Right. I believe Ms. Grabel brought that up when she was --

MS. GRABEL: Asking about.

CHMN STAFFORD: -- cross-examination of the City, I believe.

MS. GRABEL: Yes, that's correct.

CHMN STAFFORD: So I'll admit UAZ-22.

(Exhibit UAZ-22 was admitted.)

CHMN STAFFORD: 23, 24, and 25, those weren't used.

Your 26 is with -- is not -- it's withdrawn, it's not on my list of exhibits.

MR. DEMPSEY: Yeah, so I would say the only ones remaining that I actually used was UAZ-30.

CHMN STAFFORD: We'll get to those in a second, but for these ones here, the last one admitted was 22. Do the parties -- do you need or want to

stipulate to 23, 24, 25? I believe 24 is moot because the full --

MS. GRABEL: We used that one.

CHMN STAFFORD: -- university plan, wasn't that -- isn't that TEP-35?

MS. GRABEL: Yes, it's an excerpt from that. We don't have an objection to that.

CHMN STAFFORD: Okay. So we'll admit the excerpt, UAZ-24.

(Exhibit UAZ-24 was admitted.)

CHMN STAFFORD: What about UAZ-25?

MR. DEMPSEY: Are you asking me?

CHMN STAFFORD: Yeah, that one wasn't referenced. Do you want to have that admitted?

MR. DEMPSEY: It doesn't -- if you want to admit it that would be great, but it doesn't -- as you said, I did not reference it.

MS. GRABEL: I mean, if he doesn't care, it's not really relevant, so I would prefer not to admit it.

MR. DEMPSEY: So let's actually admit that one. And then let's -- we don't have to admit the Plan Tucson one, the next ones.

CHMN STAFFORD: 25. So that's the Tempe Town Lake conversion project slides. Let me see here.

MS. GRABEL: Mr. Chairman, I struggle to stipulate to admitting evidence that he didn't talk about and, therefore, I didn't have the opportunity to cross-examine him on.

CHMN STAFFORD: Unless of course it's something that -- like a franchise agreement, which is what it is.

MS. GRABEL: Right. It is what it is. Exactly.

MR. DEMPSEY: I did mention the Tempe Town Lake undergrounding in my testimony. I just didn't put a slide up, I guess.

CHMN STAFFORD: Right. So we don't -- we don't need to admit the exhibit. It's just whatever your testimony was is what your testimony was. That's in the record.

MR. DEMPSEY: Okay.

CHMN STAFFORD: Okay. 26, you withdrew that because I have a blank on the list of exhibits.

And then we have 27, which is the Plan Tucson Goals and Policies. And then UAZ-28 is the Plan Tucson Chapter 3, and then UAZ-29 is a time line of events by Underground Arizona.

MR. DEMPSEY: UAZ-30 is the only one out of those that I think --

CHMN STAFFORD: And that's a statute. We don't need it.

MR. DEMPSEY: Okay. Then we don't need any of the rest of that.

CHMN STAFFORD: Okay. So none of those.

And then we have -- you referenced 34, 36, 37, 38, 39, 40, 41. Those are all the basis for some of the slides in your presentation.

MR. DEMPSEY: Yes, and 42 and 43.

CHMN STAFFORD: Right. And then 44, 45, 46, 47, 48.

MR. DEMPSEY: Yeah. I referenced all those.

CHMN STAFFORD: The only one I didn't get was 35.

MR. DEMPSEY: 35?

CHMN STAFFORD: That's an -- is that -- let me pull it up.

MR. DEMPSEY: It's an except from their SEC 10-K filing. I believe I was going to use that for a slide and I ended up using the forward -- I was going to use backward-looking cash flow and I ended up using forward-looking cash flow, so it doesn't -- it's not necessary.

CHMN STAFFORD: But it is what it is. It's

a --

MR. DEMPSEY: Oh, yeah.

CHMN STAFFORD: It's a Form 10-K. I mean -- all right. So I'll admit UAZ-34 through 48.

(Exhibits UAZ-34 through UAZ-48 were admitted.)

CHMN STAFFORD: The next one that was referenced was 51.

MR. DEMPSEY: Yeah.

CHMN STAFFORD: I believe Ms. Grabel referenced that one. That's admitted.

(Exhibit UAZ-51 was admitted.)

CHMN STAFFORD: 53.

MR. DEMPSEY: So 53 is foundation for APS's Mid or Central Phoenix undergrounding.

CHMN STAFFORD: Right. That's an excerpt from their Ten-Year Plan.

MR. DEMPSEY: Yes, where they talk about all the undergrounding that they're planning in Central Phoenix.

CHMN STAFFORD: They filed that in the docket so we'll admit 53.

(Exhibit UAZ-53 was admitted.)

CHMN STAFFORD: 54, that's part of your CEC application case 192. That is what it is. We'll admit

that.

(Exhibit UAZ-54 was admitted.)

CHMN STAFFORD: 55 was not mentioned.

MR. DEMPSEY: Yeah, you don't need that.

CHMN STAFFORD: Okay. And then 56.

MR. DEMPSEY: That was mentioned.

CHMN STAFFORD: And that was the study, underground power lines, that was -- oh, that was the article you referenced. I think you had a page of that in the presentation. Is that the article that was from the trade show and not --

MR. DEMPSEY: No, that's a different -- we already went past that.

CHMN STAFFORD: Okay. What's this one here? This is from an Electric Journal article. We can stipulate to that, can't we?

MS. GRABEL: Yes.

CHMN STAFFORD: Okay. 56. And 57, that's the court case, you don't need to have that as an exhibit.

MR. DEMPSEY: Yeah, I just wasn't sure if I needed it for reference.

CHMN STAFFORD: No, no, you don't need those. You don't need to refer to those.

And then so 58 was excerpts from the SRP

exhibits from line siting case 175.

MR. DEMPSEY: I believe I used that. There's so many little excerpts here I can't remember which one is for which.

CHMN STAFFORD: Yeah, that was -- it was referenced but I'm looking at the parties. You can also stipulate to that, can't you? It's a --

MS. GRABEL: Yes.

CHMN STAFFORD: It's an excerpt of an SRP line siting case.

And then 59 is the tables from Sargent & Lundy and comparables.

MR. DEMPSEY: You can skip that since it's in my slides, which will be an exhibit of themselves.

CHMN STAFFORD: Okay. And then we had 60 and 61 were not mentioned.

MR. DEMPSEY: 61, let me look real quick. It might be foundation -- that's -- I do not believe I referred to it.

CHMN STAFFORD: Again, it's --

MR. DEMPSEY: It's public record.

CHMN STAFFORD: It's part of transcript from the APS case 195. I'll admit that, but if the applicant or any other party, if they feel the need to introduce more of the transcript, then they're free to do

so.

MS. GRABEL: Okay. Thank you. I thought that the 195 was the SRP case.

And then I'm not sure what UAZ-60 is. Are we not admitting that one?

CHMN STAFFORD: No, that was never offered, never discussed. That one's not in --

MS. GRABEL: Okay. Good.

CHMN STAFFORD: 62 was a slide presentation. That's admitted. So let me -- do I need to go through this again to make sure you got them?

You want me to start from the beginning or just start from the second page? Looking at you, Jennifer.

THE COURT REPORTER: The last one I have is 54.

CHMN STAFFORD: Okay. You have 54. Then after that was 56, 58, 61, and 62. Those are all admitted, yes.

(Exhibits UAZ-56, UAZ-58, UAZ-61, and UAZ-62 were admitted.)

CHMN STAFFORD: The ones that I didn't specifically say were admitted were not admitted, and some of them were actually withdrawn and not even offered.

So, all right. That concludes the parties' direct cases.

I guess my question now is to you, Ms. Grabel, you had on your exhibit list testimony and property evaluation study that you had potentially sought -- were considering offering as rebuttal testimony.

Do you intend to offer those or not?

MS. GRABEL: We do, Mr. Chairman. We did not anticipate today would go so quickly, and she is available tomorrow morning, so I wonder if this is a good time for a TEP cleanup panel. Or do you want to take a break?

CHMN STAFFORD: Actually I think I'm inclined to recess for the day and come back in the morning and then I think at that point the members and I, we can talk through how we want to proceed and what questions we're going to need answered by whom.

MS. GRABEL: Okay.

MS. HILL: Would -- and I think that's fair. I just -- is anyone on the panel interested in hearing from Mr. Bakken again? Because it's likely he will have to be remote and I'll have to do some scheduling around that.

So if there's anyone that would like to

hear anything regarding Mr. Bakken's testimony, he was the one that discussed rates and things, if you'll recall.

CHMN STAFFORD: Right.

MS. HILL: I would like to be able to bring him back if you would like it.

CHMN STAFFORD: Right. I don't think -- we're not going to need him tomorrow, I don't think, because we need to discuss about how deep into the weeds this Committee should be on rates.

I think that, you know, we certainly have to consider the costs, but the rate implications, that is the plenary authority of the Commission. So not even the legislature has authority over that. That's the Commission's authority.

So I think we need to have a discussion about the Commission's position on rates. I think the actual rate impacts is something, I don't know that this Committee needs to get too far into the weeds on that.

I think we need to have a discussion about costs, rate impacts, and then at that point we may decide we need to hear from Mr. Bakken, but I do not anticipate needing to hear from him tomorrow.

MS. HILL: Thank you very much. We just didn't -- we're trying to move this along and so we're

not objecting at times when we would like to ordinarily preserve our record about what we believe the Commission's authority is versus Committee's inquiry.

And so I just wanted to -- I don't disagree with what you're saying in any way, Chairman Stafford, and so -- but I just wanted to make sure that if you are going to want to hear from him that I can have him available.

CHMN STAFFORD: Right. And so you might want to consider having him on speed dial for Thursday. But I think it's safe to say we won't need him tomorrow. I think we need to have -- talk about it, but I think that -- I don't think we'll need to get any specifics from him until -- certainly not tomorrow.

MS. HILL: Thank you.

CHMN STAFFORD: Because while it's the purview of the Commission, we certainly -- we need to build a factual record for them to base whatever decision they're going to make on. But, again, this is not a rate case. This is not -- this is not going to turn into a rate case. But I think that we do need to have the discussion.

I think there's quite a bit of evidence in the record about the rate implications as it is. Again, I haven't had a chance to review the transcripts, but --

so I don't -- I can't quote what exactly is there, but I think I do have some recollection of it and I think we can -- if we do have additional questions, but they won't be tomorrow.

MS. GRABEL: Thank you, Mr. Chairman. I would say that I think TEP disagrees with the information that's in the record from the other parties on the average bill impact to customers, the pennies, whatever. So if that -- if that influences the Committee at all we would like to present evidence.

CHMN STAFFORD: Certainly. And if you want to plan on having Mr. Bakken come back on Thursday, with his evaluation.

MS. HILL: So I think -- I mean, I think -- and Ms. Grabel's correct when she says we think we disagree with that. However, I think bringing him back to discuss it is pretty much subject to the conversation you said you were going to have tomorrow which it is our position, quite frankly, that is not a ratemaking process and monthly bill impacts are a very, very difficult and complex process that we all know all of us that have been involved in rate cases know that. It requires a lot of assumptions, and honestly I think we would have to -- I think we would object.

CHMN STAFFORD: Well, the thing is it's not

going to be -- I mean, there's so many moving parts, it's not going to be -- it would be ballparking it at best.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: And I think that if at some point the Committee may decide that it wants some kind of ballpark. But at this -- it's not going to be tomorrow. I mean, we may decide tomorrow that we need a ballpark. But I'm saying we haven't had the conversation yet.

But it's a preliminary matter. We're not going to -- we don't expect to see competing figures of rate impacts tomorrow.

Member Hill, you had a comment or a question?

MEMBER HILL: I just have a question. I mean, we've seen a range of costs associated with different routes and different methods and different technologies. But as the Chair, can you direct us to focus on those numbers as cost assessments rather than rate -- rate-related things? I mean, I feel like you could direct us to consider those things rather than the rate piece and just keep the rate discussion out of the conversation.

CHMN STAFFORD: Yeah, I mean, the statute requires to look at the costs and then --

MEMBER HILL: We'll consider costs.

CHMN STAFFORD: -- the costs by implication will affect the rates, but it's not -- but there's different rate treatments that -- things the Commission could do with that. We might want to talk about that, and say, oh, for example, apparently franchise fees are not paid across all TEP's customers, they're allocated to the customers inside the city.

That was testimony, I specifically remember asking that question to Mr. Bryner because that was one of the issues, oh, the undergrounding, it's going to be -- the costs will be allocated to the entire rate base even though people who don't live in the City of Tucson didn't vote for these requirements.

MEMBER HILL: Okay. Maybe we do need a longer conversation tomorrow before we make a decision.

CHMN STAFFORD: Right. That's what I'm saying. I think we need to think about it tonight, I need to kind of try to put together how to approach this for us, because there's several conversations we need to have, and several -- sometimes the decision we make may moot later conversations depending on what we decide. So I think that's the conversation we'll have tomorrow.

MEMBER HILL: Okay.

CHMN STAFFORD: We're not going to get into detail of rate impacts or anything. That's for sure.

And I think, you know, ultimately we don't need that to decide, but I think that at the margin, a ballpark figure may be helpful to some members to decide. That's all I'm saying.

Ms. Hill, you look like you want to say something.

MS. HILL: I do. I do want to say something. But I don't think it's fully formed yet and I can presumably give my input tomorrow.

However, a ballpark figure is -- in putting something like that together very quickly for rates, for rate purposes, for assumptions over the course of many, many years and potentially many, many rate cases, different ROEs, different -- a variety of things, it could end up being wildly inaccurate potentially if you're looking at something in a really long-term way.

CHMN STAFFORD: Right. And what I'm thinking more of is not so much an analysis of these costs on like it's a two-cent-per-month bill impact if you're using a hundred kilowatt hours.

I'm thinking more of -- the questions that I would probably be more inclined to ask would be in the TEP's current rates, how are the franchise -- how much of the franchise fees and how are those allocated.

MS. HILL: So I actually believe that you

mean how are the franchise fees allocated? You mean within the City of Tucson customers?

CHMN STAFFORD: Right.

MS. HILL: Okay. And I'm just paring this down so I make sure that we answer the right question.

So in terms of the franchise fees themselves for the city of Tucson customers, is the question about what is the assessment per hundred dollar or mill?

CHMN STAFFORD: No, what is -- what does TEP pay to the city, how does TEP collect that money from its customers.

MS. HILL: So if you'd like, I can answer at a high level here as -- okay.

So that is a fee that is passed on, and it's a line item on the bill of City of Tucson customers. And it says franchise fee on it. That money is paid to TEP.

TEP then I believe quarterly passes that along to the City of Tucson.

CHMN STAFFORD: Right, and that is -- is that a flat rate or a per kilowatt hour rate?

MS. HILL: It's a -- I'd have to look. I'll double-check that. I didn't give you that exact --

CHMN STAFFORD: Simple factual questions

about that I think will be helpful to inform the Committee's discussion about this case.

MS. HILL: Sure. Sure. And then we can also give, I think Mr. Bakken in the record testified that it's about -- between the utility tax because we also collect the utility tax on behalf of the City from the ratepayers and pass that through. Between the utility tax and the franchise fee in 2023 we paid about 30 million, ratepayers paid about 30 million to the city.

Where the City designates that is up to them. It's 100 percent within their discretion, and they have a lot of needs that, you know, that money goes towards.

We do have the figures for prior years as well, if that is something for comparison purposes the Committee is interested in.

CHMN STAFFORD: Potentially. I think I -- there's some of that I might be interested -- I wouldn't -- we don't need a treatise on, but I'm just, you know, be able to kind of at a high level address the concepts and some of the actual numbers from the past that, you know, that aren't subject to speculation.

MS. HILL: Sure.

CHMN STAFFORD: Okay. All right. Well, anything further from members before we recess for the

day?

MEMBER RICHINS: Chairman, I think a clear understanding of what findings TEP is wanting us to make would be really helpful in making those decisions based on -- I know they're ballpark rates, but like, if I can understand what findings of fact I'm supposed to evaluate because we've had a lot of testimony here.

CHMN STAFFORD: Right.

MEMBER RICHINS: Everybody has done a really great job, but --

CHMN STAFFORD: They have a draft CEC as Exhibit TEP --

MS. GRABEL: Mr. Chairman, actually we've been working on another one that includes exactly what Mr. Richins -- what Member Richins -- I'm sorry -- is asking for. We will work on that the bulk of today and have it docketed tomorrow.

CHMN STAFFORD: Even better. Thank you.

All right. Anything further?

(No response.)

CHMN STAFFORD: All right. With that, we recess until tomorrow morning at nine a.m.

(Proceedings recessed at 3:14 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206(J)(1)(g)(1) and (2).

Dated at Phoenix, Arizona, July 25, 2024.



JENNIFER HONN, RPR
Arizona Certified Reporter
No. 50885

I CERTIFY that GLENNIE REPORTING SERVICES, LLC, has complied with the ethical obligations set forth in ACJA 7-206(J)(1)(



GLENNIE REPORTING SERVICES, LLC
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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

LS-361

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 17, 2024

Filed: August 2, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME VIII
(Pages 1559 through 1864)

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ACC - Docket Control - Received 8/2/2024 12:28 PM
ACC - Docket Control - Docketed 8/2/2024 1:17 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789
VOLUME IV	July 11, 2024	Pages 790 to 857
VOLUME V	July 12, 2024	Pages 858 to 1044
VOLUME VI	July 15, 2024	Pages 1045 to 1324
VOLUME VII	July 16, 2024	Pages 1325 to 1558
VOLUME VIII	July 17, 2024	Pages 1559 to 1864

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719
Index to the Tour	
Stop 1	801
Stop 2	813
Stop 3	828
Stop 4	833
Stop 5	845
Stop 6	847

INDEX TO EXAMINATIONS

WITNESSES	PAGE
Chris Lindsey, Clark Bryner, and Jason Jocham (Recalled) - for the Applicant	
Testimony Given	1577

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	1225
TEP-2	Map of Proposed Project	21	1225
TEP-3	Testimony of Clark Bryner	52	1225
TEP-4	Testimony of Chris Lindsey	54	1225
TEP-5	Testimony of Erik Bakken	57	1225
TEP-6	Testimony Summary of Larry Robinson	386	1225
TEP-7	Testimony Summary of Jason Jocham	948	1225
TEP-8	Witness Presentation	49	1225
TEP-9	TEP Ten-Year Plans	58	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	1225
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	1225
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	1225
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	1225
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	1225
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	1225
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	1225
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	1225
TEP-10	Exhibits Regarding Notice Requirements	58	1225
TEP-10A	Notice of Hearing	58	1225
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	1225
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	1225
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	1225
TEP-10E	Map of Notice of Hearing Sign Locations	58	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10F	Photographs of Sign Placement	58	1225
TEP-10G	Example of Sign Contents	58	1225
TEP-10H	Notice of Service to Affected Jurisdictions	58	1225
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	1225
TEP-11	Receipt of Filing Fee	58	1225
TEP-12	Virtual Tour	504	1225
TEP-13	Tour Itinerary/Script/Protocol	254	1225
TEP-14	Summary of Public Outreach	929	1225
TEP-15	Proposed Certificate of Environmental Compatibility	1225	1225
TEP-16	Undergrounding Presentation	950	1225
TEP-17	Undergrounding Cost Analysis Study	948	1225
TEP-19	Property Valuation Study	1573	1574
TEP-20	Additional Project Comments	929	1225
TEP-21	Letter of Support from University of Arizona	368	1225
TEP-22	Letter of Support from Tucson Metro Chamber	930	1225
TEP-23	Letter of Support from Southern Arizona Leadership Council	931	1225
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	1225
TEP-26	Gateway Corridor Zone Overlay Map	872	1225
TEP-27	National Grid Report re Undergrounding high voltage electricity transmission lines	1035	1225
TEP-28	City of Tucson Chicanes Examples	936	1225
TEP-29	Letter of Support from Boys & Girls Clubs of Tucson	1225	1225
TEP-30	Supplemental Undergrounding Cost Analysis	1012	1225
TEP-31	Updated Project Cost Summary and Comparison	1057	1225
TEP-32	Updated Corridor Map for Preferred Route	1211	1225
TEP-33	Tucson Sentinel News Article re Street	1197	1225
TEP-34	Excerpt from SRP High Tech Interconnection Project	1443	1575
TEP-35	University Area Plan	1443	1444
TEP-36	Alternative Proposed Certificate of Environmental Compatibility	1804	1805
BUMCT-1	Testimony Summary of Mark Barkenbush	37	1322
BUMCT-2	Witness Presentation	37	1322

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
COT-1	SARGENT & LUNDY UNDERGROUND COST ANALYSIS Report SL-015392	1405	1439
COT-2	Testimony Summary of Mark Castro	1405	1439
COT-3	CITY OF TUCSON MAJOR STREETS AND routes PLAN	1405	1439
COT-4	City of Tucson Election Official Voter information re: Proposition 412 (English and Spanish Version)	1405	1439
COT-5	City of Tucson Major Streets and routes	1345	1439
COT-6	Link to Plan Tucson: City of Tucson General & Sustainability Plan (2013)	1405	1439
COT-7	Tucson Electric Power vs. City of Tucson and City of Tucson Board of Adjustment Under Advisement Ruling Pima County Superior Court Case No. C20235484	1405	1439
COT-8	WITNESS PRESENTATION MARK CASTRO	1405	1439
COT-9	Statement of Karin Uhlich, Councilmember Ward 6	1575	1575
COT-10	Statement of Kevin Dahl, Councilmember Ward 3	1575	1575
UAZ-1	Sargent & Lundy Report SL-015392 Revision 0 Report	1461	1537
UAZ-2	Sargent & Lundy Report SL-015392 Revision 7 Final Report	1537	1537

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-3	Excerpts of TEP CEC Application from Line Siting Case 192	1537	1537
UAZ-4	Excerpts of SRP Testimony from Line Siting Case 195	1537	1537
UAZ-5	Excerpts of SRP Exhibits from Line Siting Case 195	1462	1537
UAZ-6	Excerpts of Chandler Exhibits from Line Siting Case 195	1537	1537
UAZ-7	Excerpts of APS Testimony from Line Siting Case 198	1537	1537
UAZ-8	Excerpts of APS Exhibits from Line Siting Case 198	1208	1537
UAZ-9	Excerpt of SRP District Board Meeting Notice & Agenda 3/28/2024	1455	1537
UAZ-10	APS Central Phoenix Project Website	1537	1537
UAZ-11	Underground Arizona Website	1525	1537
UAZ-12	PDI2 Utility Undergrounding Lifecycle Cost Guide	1537	1537
UAZ-13	S&C Electric Company: The Changing Economics of Utility Investment in Undergrounding	1480	1537
UAZ-14	Utility Dive: As wildfires losses mount, will commercial insurers decline to cover utilities?	1480	1537

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-15	EIA Electric Power Annual Report, Table 11.1: Reliability Metrics for the U.S. Distribution System	1481	1537
UAZ-16	10th International Conference on Insulated Power Cables: Can cables last 100 years?	1174	1537
UAZ-17	TEP 2023 Annual Report 10K, Note 4.	1537	1537
UAZ-18	UMC Banner Letter of Opposition	1538	Not Utilized
UAZ-19	Not Utilized (See TEP-35)	1433	Not Utilized
UAZ-20	TEP-University of Arizona Special Contract	1538	Not Utilized
UAZ-21	TEP-City of Tucson Franchise Agreement	1011	1540
UAZ-22	Zoning Examiner's Decision on TEP Special Exception Permit	1426	1540
UAZ-23	Zoning Administrator's Determination on Gateway Corridor	1540	Not Utilized
UAZ-24	University Area Plan Excerpts	1540	1541
UAZ-25	APS Tempe Town Lake 230 kV OH/UG Conversion Project Slides	1540	Not Utilized
UAZ-26	Blank	1540	Not Utilized
UAZ-27	Plan Tucson Goals & Policies	1542	Not Utilized
UAZ-28	Plan Tucson Chapter 3	1542	Not Utilized

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-29	Timeline of Events by Underground Arizona	1542	Not Utilized
UAZ-30	Arizona Revised Statutes 40-360.06	1542	Not Admitted
UAZ-31	Arizona Revised Statutes 48-621	1547	Not Utilized
UAZ-32	Streetscape Photos by E. Alster	1547	Not Utilized
UAZ-33	Visit Tucson Annual Report	1547	Not Utilized
UAZ-34	TEP 2023 Annual Report 10K Excerpts	1543	1544
UAZ-35	TEP 2020 Annual Report 10K, Cash Flow Statement	1543	1544
UAZ-36	APS 2023 FERC Form 1 Excerpts	1455	1544
UAZ-37	APS 2022 FERC Form 1 Excerpts	1462	1544
UAZ-38	APS 2021 FERC Form 1 Excerpts	1462	1544
UAZ-39	APS 2020 FERC Form 1 Excerpts	1462	1544
UAZ-40	APS 2019 FERC Form 1 Excerpts	1462	1544
UAZ-41	APS 2018 FERC Form 1 Excerpts	1462	1544
UAZ-42	Excerpt of APS Exhibits from Line Siting Case 169	1543	1544
UAZ-43	UNS Electric Study: Appendix D: Property Values effects from High Voltage Overhead Transmission Line: Study Methodology, Analysis, and Conclusions	1485	1544

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-44	Tucson.com: Tucson City Council approves 20-story tower at Speedway and Campbell	1489	1544
UAZ-45	KGUN9: Apartments, retail development coming to edge of UArizona campus	1489	1544
UAZ-46	Tucson.com: A new 10-story student housing complex is going up in Tucson	1489	1544
UAZ-47	Utility Dive: Arizona regulators OK 10% Tucson Electric Power rate increase, eliminate EV incentive	1478	1544
UAZ-48	Tucson.com: Tucson Electric Power's $$99.5M rate increase proposal hits residential customers hardest	1478	1544
UAZ-49	TEP.com: Investing in Our Community	1547	Not Utilized
UAZ-50	TEP.com: Ratepayer Assistance	1547	Not Utilized
UAZ-51	FINRA Series 86 & 87 lines Examination Content	1451	1544
UAZ-52	Arizona Real Estate Broker lines Examination Content	1547	Not Utilized
UAZ-53	APS 2023 Ten Year Transmission Plan Excerpts	1544	1544
UAZ-54	Excerpts of TEP CEC App Case 192, pages 11-17, 867-869	1461	1545
UAZ-55	Southwire 138kV and 230kV XLPE Product Brochures	1545	Not Utilized
UAZ-56	Study: Underground power lines can be the least cost option	1480	1547

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INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-57	APS vs. Town of Paradise Valley (1980), Arizona Supreme Court	1545	Not Utilized
UAZ-58	Excerpts of SRP Exhibits from Line Siting Case 175	1462	1547
UAZ-59	Tables of Sargent & Lundy and Comparables	1186	Not Utilized
UAZ-60	TEP Reliability Press Release	1546	Not Utilized
UAZ-61	Excerpts of APS Testimony FORM Line Siting Case 196	1546	1547
UAZ-62	Witness Presentation	1450	1547

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:08 a.m. on July 17, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns (via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public (via videoconference)
DAVE RICHINS, General Public
JOHN Gold, General Public

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CHMN STAFFORD: All right. Let's go back on the record.

Where did we leave off yesterday? I think we had -- we were preparing to have any kind of follow-up questions from the members to the new panel.

MS. GRABEL: The cleanup panel.

CHMN STAFFORD: The cleanup panel.

MS. GRABEL: I think first, Mr. Chairman, we were going to take TEP's rebuttal witness. However, we were thinking about it last night. And the rebuttal witness is going to speak about property values. And there didn't seem to be that much interest in the Committee to discuss property values.

And so although there is some evidence that that Mr. Dempsey submitted into the record, we'd be fine just not offering that witness if the parties would be willing to stipulate to the admission of the report just so we could get the information in the record to the extent that ever does come up during the proceedings.

CHMN STAFFORD: And the report is TEP-19?

MS. GRABEL: Correct.

CHMN STAFFORD: Mr. Lusk, how does that sound to you?

MR. LUSK: I think that's fine, Mr. Chair.

Can you repeat just briefly? I'm sorry. I

was a little distracted.

MS. GRABEL: Oh, no problem. So we were just saying rather than take the time to talk through --

MR. LUSK: Oh, for the --

MS. GRABEL: -- the property value testimony we won't offer a witness, we'll just stipulate to the admission of her report.

MR. LUSK: Yeah, that's fine.

CHMN STAFFORD: Ms. De Blasi.

MS. DE BLASI: Banner doesn't have an issue with that.

CHMN STAFFORD: Mr. Dempsey.

MR. DEMPSEY: No problem.

CHMN STAFFORD: Okay. With that Exhibit 19 is admitted.

(Exhibit TEP-19 was admitted.)

CHMN STAFFORD: Now, Ms. Grabel, did we -- I have a TEP-34, which is an excerpt from the SRP line siting case 195.

I don't have that marked as admitted yet.

MS. GRABEL: I used that in my cross-examination of Mr. Dempsey, but I would like it to be admitted, if possible.

CHMN STAFFORD: Yes. If it wasn't already admitted, it's admitted now.

(Exhibit TEP-34 was admitted.)
MS. GRABEL: Okay.
CHMN STAFFORD: And I believe the City has a couple new exhibits.
MR. LUSK: That's correct, Chair. The two exhibits that were passed out this morning and will be filed today or were filed yesterday relate to I think Member Gold's questions about what the leadership of the City would prefer, and those speak directly to that.
CHMN STAFFORD: All right. Do the other parties stipulate to the admission of the City of Tucson's 9 and 10, or do they need to cross a witness on them?
MS. GRABEL: Do you want to answer?
MS. HILL: Mr. Stafford, the applicant will stipulate.
CHMN STAFFORD: Okay.
MS. HILL: I'm sorry, Chairman Stafford.
CHMN STAFFORD: All right. With that, the City of Tucson's Exhibits 9 and 10 are admitted.
(Exhibits COT-9 and COT-10 were admitted.)
MEMBER LITTLE: Mr. Chairman.
CHMN STAFFORD: Yes, Member Little.
MEMBER LITTLE: I just looked at Exhibit 19 -- TEP-19, and it's voluminous.

CHMN STAFFORD: Yes. By my count 216 pages.

MEMBER LITTLE: And I personally have not had a chance to read it, having just gotten it last week, and I'm wondering how the other Committee Members feel about perhaps having the witness come and give us at least a summary of what it says.

We have some pretty important decisions to make in the next few days and I don't imagine that I'm going to be able to read this whole thing during the breaks.

CHMN STAFFORD: Good point.

Members, would you prefer to hear from the witness?

MEMBER RICHINS: Chairman, I'm pretty confident that I could give you the summary of that, that given who submitted this report to the Committee, that it's going to say that it doesn't have an effect on property values. Pretty straightforward I'm sure. But, you know, so I --

MEMBER LITTLE: That's good enough for me.

MEMBER RICHINS: I mean, I think I'm okay without the witness because I'm pretty sure I know what it is.

MS. GRABEL: That is what it says.

MEMBER RICHINS: Thank you, Meghan.

MS. GRABEL: You're welcome.

MEMBER LITTLE: I'm good with that.

CHMN STAFFORD: All right. Then so now on to member questions.

They have the cleanup panel here, so if you have questions you want to ask about specific routes or specific portions of the route or specific problems with different segments of the route, now is the time.

We have Mr. Lindsey, Mr. Bryner and Mr. Jocham. They are all still oath. So they're available for questioning now, aren't they, Ms. Grabel?

MS. GRABEL: Yes, Chairman Stafford, they are.

CHRIS LINDSEY, CLARK BRYNER, AND JASON JOCHAM (recalled), recalled as witnesses as a panel on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

MS. GRABEL: And if -- you know, if you want me to introduce them again, I'm happy to do it, but I know you guys have seen them for the past week and a half, so I probably don't need to go there.

CHMN STAFFORD: I think we all remember who they are.

MS. GRABEL: Okay.

MEMBER RICHINS: Chairman, we did have some additional exhibits added to us. I know that you acknowledged those, particularly City of Tucson 9.

CHMN STAFFORD: Yes. We just admitted those.

MEMBER RICHINS: Yeah. I did have one question on the exhibit page --

CHMN STAFFORD: 9 or 10?

MEMBER RICHINS: I don't see a page number, so including the cover sheet -- well, actually including the salutation page one, two, three pages in, second bullet point.

CHMN STAFFORD: You're talking about COT-9; correct?

MEMBER RICHINS: Yes. Yes, sir.

It starts, "The day before filing their application..." The exhibit comes from the council member who covers this -- whose ward is where this project is, I believe.

Mr. Lusk, can you confirm that?

MR. LUSK: That's correct, Member.

MEMBER RICHINS: Okay. There's an

allegation in there that there's a little bit of bait and switch for the council member where it says that they reviewed their -- their preferred alternative being B-5 on the alternative, and then the application went in as B-4, and she was kind of really shocked by that change.

I was just hoping somebody could address what happened there because that's kind of a big deal to go in and tell a council member that the route is going to be B-5 and you submit B-4.

So what happened?

MS. GRABEL: Thank you, Mr. Chairman. Oh, go ahead.

CHMN STAFFORD: That sounds like it would be a question for Mr. Bryner.

MS. GRABEL: Yes.

MR. BRYNER: And, Member Richins, I'd be happy to answer that. So there is a story there.

It was not an eleventh-hour change. It was a miscommunication amongst our internal group. So our government relations folks, they typically have a lot of those briefings with our local elected officials -- well, any of our elected official.

And so they held that briefing with the council member who is a new council member. Now, there was a change. Probably she was appointed two weeks --

roughly two weeks before we submitted or filed our application.

MEMBER RICHINS: Councilwoman Uhlich is a long veteran of the council.

MR. BRYNER: Sure.

MEMBER RICHINS: She was on before for a long time, so she's very experienced.

MR. BRYNER: Yeah.

MEMBER RICHINS: So let's not chalk it up to that.

MR. BRYNER: No, no. This was our fault.

We communicated the wrong route. As soon as they were made aware, hey, it's not B-5, it's B-4, they corrected the record with her.

MEMBER RICHINS: Perfect. That's what I figured happened, that it was just a mistake like that.

So thank you for clearing that up. Appreciate it.

MS. HILL: May I ask just one follow-up question, Mr. Chair?

CHMN STAFFORD: Certainly.

MS. HILL: And so, Mr. Bryner, when you were talking about Councilwoman Uhlich having just been appointed a couple of weeks before, you were aware, of course, that she had been she -- is a veteran of the

Tucson City Council; correct?

MR. BRYNER: Yes.

MS. HILL: And so when you were talking about her just having been appointed a couple of weeks before, were you referring to in terms of her involvement with this phase of the project in terms of catching up?

MR. BRYNER: Yes. So the previous ward 6 council -- councilman, Councilman Kozachik, he had resigned a little bit before this, and he had been very engaged.

So we were anxiously awaiting the appointment of his replacement so that we could bring her up to speed. So that was the purpose of that meeting.

MS. HILL: And I should probably disclose in all fairness -- I don't believe it's a conflict -- I have known Councilwoman Uhlich in her -- in a personal capacity for almost 20 years. And so I just want to disclose that.

In all honesty, we've never spoken about this project. We will never speak about this project. I do not believe there is any conflict.

CHMN STAFFORD: Thank you.

All right. I believe Member Hill has some questions.

MEMBER HILL: Thank you, Mr. Chair.

When we were concluding yesterday, pardon me, I understood the applicant was working on a new draft CEC. And it would -- I think it would be helpful before we dismiss all of the witnesses to take a look at some of the language that you might have added or proposed that -- just to see how -- if any, questions come up about the project related to that. So I think that would be helpful.

MS. GRABEL: Certainly. I think Mr. Ancharski is printing them out as we speak. So you should have them momentarily.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I'm guessing now is the time when I can ask questions that I was not able to ask before.

So may I ask them now?

And whoever is appropriate to answer please do so.

First question: Someone asked about the Gause electromagnetic field on hospital equipment from overhead lines.

Who can address that?

MR. BRYNER: I'll take that, Member Gold.

So I believe that came from -- that was a

concern that was brought up by Banner or -- in those conversations.

So I guess the way I'd like to address that is, first of all, I want to refer you to our application Exhibit TEP-1 under Exhibit I.

MEMBER GOLD: Hang on a sec. TEP-1. Okay. I don't see any exhibit there.

CHMN STAFFORD: It's about 400 pages deep, isn't it?

MEMBER GOLD: I'm sorry. Where should I look?

MR. BRYNER: Under Exhibit I of the application.

MS. GRABEL: Can you help him with a page number, Mr. Bryner?

MEMBER GOLD: It's TEP-1 is only one page.

MS. GRABEL: No. You need to go to application. We didn't put it in the reprint of the exhibits because it's 400 pages long.

So we'll get you a copy, Member Gold.

CHMN STAFFORD: Oh, I have got one right here.

MR. BRYNER: Page 1,065.

MEMBER GOLD: Okay. Don't put it on my lap. It'll break everything there.

MEMBER LITTLE: Mr. Chairman.

MEMBER GOLD: 1065?

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Don't forget about us, sending things to Tod so we can get them, please.

CHMN STAFFORD: You have the -- you should have an electronic copy of the application.

MS. GRABEL: I think she means the CEC. We will definitely --

CHMN STAFFORD: Oh, the CEC, yes, absolutely.

MS. GRABEL: Yeah.

CHMN STAFFORD: As soon as we have it we'll get it to Tod, and he'll get to it you.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: Because I think the big change we're looking for in that one is what specific ordinance, plan, or regulation the applicant is seeking a -- the specific finding of being unduly burdensome.

MEMBER GOLD: Okay. So looking at your exhibit on page 1065. That's it.

MR. BRYNER: Okay.

MEMBER GOLD: Strength of the various electric sources, the distances, and you make reference to a microwave, a vacuum cleaner, a hair dryer, and an

electric shaver. Distance half a foot. But you're talking very low voltage. So I want to know what those are.

MR. BRYNER: So what I want to point you out to is in that Table 26, the last line, which is a 138kV transmission line.

MEMBER GOLD: Okay.

MR. BRYNER: This is a study that the power engineers conducted on one of our I'll call it a sister line -- it's the same design -- so that we could understand exactly what the EMF strength would be.

And so if you look at it's got distances, it's got 0 feet, which is 16.4 B milliGauss.

MEMBER GOLD: Oh, I can read. I'm looking at this.

MR. BRYNER: Okay. So --

MEMBER GOLD: This apparently says -- because now I'm reading it, this apparently says that there is no effect or virtually no effect at the distance that overhead transmission lines would be from the hospital's equipment.

Am I reading that correctly?

MR. BRYNER: Yes, you are.

MEMBER GOLD: So now I ask for, Ms. De Blasi, were you aware of this?

I know it was on page 1,065 of a document that weighs about 30 pounds.

Did you see this?

MS. DE BLASI: Yes, I did.

And I believe my -- Banner's testimony was not that there was or wasn't but that it had not been tested in the proximity of where TEP is asking for the line pretty much next to the hospital if they got their 400-foot corridor that they're asking for.

So it wasn't that there would be or would not be an effect. It's that the hospital did not have -- has not had the chance to verify this information, look within the hospital where that sensitive equipment be with respect to this line so that they could mitigate it. I think it was referenced in the council member's letter as.

It's always an issue when a hospital is near a power line. There are power lines near hospitals. I think, you know, the witness -- my witness was not saying that there would not be. It was they had not looked at, and they would not want to know that in realtime if it were to be sited.

MEMBER GOLD: Okay. So this is back to Mr. Bryner.

That means that you're not going to put

your transmission -- if we wind up where your put your transmission lines on this route near the hospital, how far away from the hospital would you put them?

MR. BRYNER: So based off of what we were looking at it --

MEMBER GOLD: Yes.

MR. BRYNER: -- our minimized corridors from the 400-foot where we brought that down it would be roughly 500-foot away from the hospital the nearest location. So that last -- the number in that last field on the table --

MEMBER GOLD: Okay.

MR. BRYNER: -- would be roughly what we would estimate it to be.

MEMBER GOLD: So basically if you put that power line 500 feet away compared to, you know, 50 feet away, this was going to be a negligible, if any, effect whatsoever. We were only concerned and nobody actually tested it in the hospital.

Am I correct in that understanding?

MR. BRYNER: Correct. No tests were done within the hospital.

MEMBER GOLD: Okay. So that's -- that doesn't appear to be a real issue.

CHMN STAFFORD: And the revised corridor,

that's only for B-4; correct?

MR. BRYNER: So we only revised it for B-4, but the same sort of that criteria that I talked about for different residential streets, arterial streets, that would apply on regardless. So it would be applicable on D-1 or 6 or --

MEMBER GOLD: Gotcha.

MR. BRYNER: -- or any of the routes that go along there.

MEMBER GOLD: So not a -- it's not something I would consider as a danger to the hospital or people working in the hospital?

MR. BRYNER: Correct.

MEMBER GOLD: Next question.

I asked if transmission towers in commercial areas instead of residential areas were preferable to the City of Tucson. So now I'm asking who can answer that question?

We've got our personal opinion, but who answers that question?

I saw the council member stuff, and they said follow the laws.

MR. LUSK: And that is still our preference, Member Gold.

MEMBER GOLD: So the preference is still

underground?

MR. LUSK: In the Gateway Corridor, yes.

MEMBER GOLD: What about near the hospital?

MR. LUSK: I don't believe that the street Lester requires undergrounding in the GATEWAY because it's not in the Gateway Corridor Zone.

MEMBER GOLD: So just Gateway Corridor.

How about residential areas?

MR. LUSK: Well, are you talking about zoned residential or actual residential?

MEMBER GOLD: Historic districts. Because some of your routes, your preferred route, does go through historic districts.

MR. LUSK: It's their preferred route, just to be clear.

MEMBER GOLD: "The" preferred route.

MR. LUSK: "The" preferred route. Yeah.

I think there was a discussion yesterday and a question about whether the historic overlays require undergrounding. We're researching that, but we can't -- because there are so many historic overlay zones it's hard to answer that question at this time with any sort of certainty because each one has different dimensional standards.

CHMN STAFFORD: Right. But I think it's

the City's position is still that if those plans require undergrounding, then they should be undergrounded.

MR. LUSK: Correct.

An overlay route -- excuse me, an overlay zone is a regulation through the UDC, which is our -- the Tucson city code, and we'd ask that it be enforced.

MEMBER GOLD: Okay. So you would really not want overhead lines in residential areas?

MR. LUSK: Well, the reason why I -- I have a caveat for that, Member Gold, and I'm not trying to be obtuse, but the -- when you say residential zone, Campbell is a residential zone. It's zoned residential all the way down.

MEMBER GOLD: Except in Campbell.

MR. LUSK: As long as it's not in the Gateway Corridor, Member Gold, what we're looking for is that as long as it's not required under the code, under the UDC, then we're not concerned as much with whether the over -- or, excuse me, where the code requires undergrounding we would wish it to be enforced.

MEMBER GOLD: So residential areas require undergrounding?

MR. LUSK: No, not all residential require undergrounding.

MEMBER GOLD: Historic?

CHMN STAFFORD: Member Gold, I think what the City's position is is that it speaks through the code. And if the code requires undergrounding, then it requires undergrounding. If it doesn't, then it doesn't.

So the City's -- the City's not taking the position that anything should be undergrounded other than what the code would require.

MEMBER GOLD: Understood.

But I'm trying -- I'm using terminology that I'm not familiar with.

MR. LUSK: Sure.

MEMBER GOLD: So maybe I don't mean residential areas. Maybe I mean historic districts.

MR. LUSK: Again, the historic districts in the City of Tucson have different requirements for different districts, so it's hard to answer for all of them.

But if they require that within the code under the zones, whether they're zoned as a historic overlay zone, then we would ask that it be enforced.

MEMBER GOLD: So then here's my question to you.

TEP's preferred Route B-4, does that go through any of these historic zones?

MR. LUSK: I'm not aware that it goes

through any historic overlay zones but may touch -- may touch them.

MS. GRABEL: Member Gold, Mr. Bryner can answer that question for you.

MEMBER GOLD: Thank you.

MR. BRYNER: So Route B and -- well, Route B goes through the neighborhood preservation zone of Jefferson Park, and Route 4 goes through the west university historic preservation zone.

Again, just referring to my testimony that I gave on those, both of those -- the way those zones are is they have design guidelines with respect to buildings within those zones, but they don't have any language with respect to utilities.

MEMBER GOLD: So there's no city requirement to underground in those zones?

MR. LUSK: I would agree with Mr. Bryner.

MEMBER GOLD: Okay. That takes care of that one.

Now, to underground Campbell in the business area I think from Broadway to Speedway, what's underneath the ground that would create obstacles?

MS. GRABEL: Mr. Bryner.

MEMBER GOLD: Sewer lines. I think we heard there were sewer lines yesterday that they can't

move. You would have to go around and under them.

What else is under there?

MR. BRYNER: So we haven't done a full study to find out what utilities are under there. We haven't done a Blue Stake or anything like that.

But there are certainly city utilities, water, sewer. There's going to be buried a number of other utilities. And then there's the unknowns of what happened before historically, prehistorically, those types of things.

MEMBER GOLD: Okay. And the City of Tucson --

MR. JOCHAM: Member Gold.

MEMBER GOLD: -- requires that area to be undergrounded, though, correct, according to their rules?

MR. BRYNER: So according to their rules on the gateway it would require that, yes.

MR. JOCHAM: Member Gold, may I chime in? This is Mr. Jocham.

MEMBER GOLD: Yes, please.

MR. JOCHAM: So to give a concept, Mr. Bryner mentioned we have no idea what's under Campbell Road currently.

But from the City of Tucson's GIS information, you know, we are aware at least along the

Campbell route based off of the GIS there are 22 water pipelines and 19 sewer pipe crossings along that route that at least we have some -- we have -- we have some information on.

We don't know depth. We don't know how they would interfere with the underground transmission line, but we know that they're present.

So right off the bat, we know that there's approximately 41 crossings that we would have to work with down Campbell at a minimum, not knowing what else is present.

MEMBER GOLD: Okay. Now this goes back to Mr. Lusk or whoever you choose.

Knowing this, knowing this, the City of Tucson still wants them to underground on this gateway route if they choose it -- if this route is chosen?

MR. LUSK: Yes. That's the law.

MEMBER GOLD: Okay. Who pays for it?

MR. LUSK: Again, that's a question -- so what our franchise says is the City doesn't pay for it.

MEMBER GOLD: The City does not?

MR. LUSK: So then it would be up to the applicant to decide how that gets paid for.

MEMBER GOLD: I'm sure the applicant doesn't want to pay for it.

MR. LUSK: I'm sure that's true.

MEMBER GOLD: And I'm sure the voters don't want to pay for it with the rate increase because they've already voted that down.

Am I correct in that assumption?

MR. LUSK: I don't speak for every voter, no.

MEMBER GOLD: Well, was that proposition passed or was it defeated?

MR. LUSK: It was defeated. The up and down vote on the franchise was defeated, yes.

MEMBER GOLD: Gotcha.

Please, Ms. Hill.

MS. HILL: So, if I may, since this has come up, I'm going to ask the -- I mean, we can have some testimony about specific areas of the franchise agreement that address undergrounding.

But we do agree that under the franchise agreement there's really no -- really no solution about how it gets paid for with the exception of a couple of parts that in the franchise fee section that discuss that a portion of the franchise fee that's paid to the City could be used to pay for undergrounding.

But I want to caution that because it is not the company's position that funds should be taken

from public safety or any other purposes that the City is using that $30 million or whatever it is a year that the ratepayers are paying in utility taxes and franchise fees. There are a lot of things that the City has to spend that money on.

So I want to be very clear when I say that, when I provide that information, the company is not pointing a finger and saying this should be used for this because that is not our position. It's just that I agree with what Mr. Lusk is saying that there's no solution for the payment.

MEMBER GOLD: Understood. Now the question I have then, since you brought it up, because it was going to be my next question would you please explain this franchise agreement and the franchise fee in layman's terms so I understand it?

MS. HILL: Do you want to start?

MR. LUSK: Is that for me, Member Gold?

MEMBER GOLD: Either of you.

MR. LUSK: Sure.

MEMBER GOLD: Whoever can explain it.

MR. LUSK: So I'll start.

MS. HILL: Could -- if you want to look at it, it is UGAZ Exhibit 21, which I think was admitted.

MEMBER GOLD: I'm sorry?

MEMBER RICHINS: Chairman, can we confirm we're talking about the current, in-place franchise agreement expiring in 2026?

Is this the correct one?

CHMN STAFFORD: Yes. That's the correct one.

MEMBER RICHINS: Because I just don't want any confusion between what was proposed in 412 and the current franchise because that's important. Thank you.

CHMN STAFFORD: Right. What was proposed and was Prop 412, and that's Exhibit COT-4.

They're speaking of UGAZ -- what's the number?

MR. LUSK: 21.

CHMN STAFFORD: 21. And that's the current franchise that is -- current franchise, yes.

MEMBER GOLD: Okay. So thank you, Mr. Richins.

Please deal with the current franchise agreement.

MR. LUSK: Sure.

MEMBER GOLD: I wasn't aware there were several.

MR. LUSK: Well, sure.

MEMBER GOLD: There's one in effect.

MR. LUSK: We're all in agreement there's only one.

The franchise agreement surface the franchise fee goes is under Arizona state law in order to -- the municipalities have the option of requiring a franchise to operate within the city limits of a public service corporation.

MEMBER GOLD: Can I stop you for a second?

MR. LUSK: Sure.

MEMBER GOLD: Before you go into franchise fee, please explain what the franchise is.

MR. LUSK: Oh, it's permission to operate within the city limits of Tucson --

MEMBER GOLD: And what are the parameters?

MR. LUSK: -- and specifically within the right-of-way.

I'm sorry?

MEMBER GOLD: The parameters of the franchise agreement. It says TEP will do the electrical stuff for the City -- I'm trying to simplify it --

MR. LUSK: Okay.

MEMBER GOLD: -- and obey the City's laws.

MR. LUSK: It does say that, yes.

MEMBER GOLD: Okay. Is there a limit on cost?

MR. LUSK: No.

MS. HILL: No. So --

CHMN STAFFORD: And then one real quick clarification, though, Member Gold, is that it's the -- I think TEP has a certificate of convenience and necessity which allows it the monopoly right to serve its territory, which is separate -- which is issued by the Corporation Commission.

That's separate and apart from the franchise, which is permission from the incorporated city to operate within the limits and to use their rights-of-ways in the streets for the utility purposes.

Is that correct? That's my understanding?

MS. HILL: That is --

MR. LUSK: That is --

MS. HILL: That is -- I'm sorry.

MR. LUSK: No. I agree, Chair.

MEMBER GOLD: So this is --

MS. HILL: Mr. Lusk, so I do have one clarification.

MEMBER GOLD: Please.

MS. HILL: Okay. So where -- and I can point you I believe it is Section 26 of the franchise agreement.

MEMBER GOLD: Where is the franchise

agreement here? Is that COT-4?

MS. HILL: It's UGAZ --

MR. LUSK: It's UAZ-21.

MS. HILL: Yeah, 21.

MEMBER GOLD: Wait, wait, wait.

CHMN STAFFORD: One at a time, everybody. One at a time, please.

MS. HILL: Sorry, Chairman.

MEMBER GOLD: UAZ-21. Ordinances relating to the franchise.

Okay. Where is the provisions of the nonexclusive franchise agreement?

What does nonexclusive franchise agreement mean?

What does nonexclusive mean?

MS. HILL: So -- so -- and I may be stating the wrong -- my copy of it appears to have disappeared. So I'll have pull it up here. Give me a second.

But so when we talk about -- there is a section there that says that the City is permitted to make laws surrounding, you know, to protect the public safety, ensure electrical service and everything.

However, that same paragraph also makes it clear that the City can only enforce those to the extent

they are permitted by state law.

State law gives this Committee the authority to make the finding that we are asking for that says that the local ordinance is unduly restrictive and not feasible in light of the technology available.

So that is the limitation on the City's power to enforce that ordinance in this particular setting.

MEMBER GOLD: Okay. So the franchise agreement if I understand this --

MR. LUSK: If I may just briefly, Member Gold. I think there might be a slight disagreement, and that's something we can resolve in another venue.

But whether or not the finding that this Committee makes curtails our ability to enforce our own code is up for debate I would say.

CHMN STAFFORD: Yes. I believe that'll have to ultimately be decided by a court, but --

MEMBER GOLD: Okay. So let's assume we stop -- before we go fighting in court, we have a franchise agreement that you delegated -- I mean, excuse my verbiage if I get it wrong.

MR. LUSK: No problem.

MEMBER GOLD: Somehow you've delegated Tucson Electric Power to maintain electricity for the

residents of Tucson so that we can live happily, safely, and not have to worry about dying of heat or thirst or anything else like that; is that correct?

That's the purpose of the franchise agreement?

MR. LUSK: I wouldn't use the word "delegated," but, yes, we permit them to do so. Yes.

MEMBER GOLD: So you permit them to do it?

MR. LUSK: Under the franchise agreement.

MEMBER GOLD: If you didn't permit them to do it, who would do it?

MR. LUSK: I don't know. I'm sure somebody else would --

CHMN STAFFORD: I think, Member Gold, because the City has existing rights-of-ways on its streets, and by -- through the franchise agreement it allows TEP and other utilities -- that's why it's nonexclusive franchise --

MEMBER GOLD: Oh, okay.

CHMN STAFFORD: -- to operate in those rights-of-ways for their different infrastructure.

Without a franchise -- I don't -- this is getting really hypothetical because I don't think any utility operates anywhere in the state in a city without a franchise. I think -- I'm pretty sure that's the case.

I haven't looked at everything, so I can't say that 100 percent because I haven't investigated it, but I'm pretty sure that is the case.

If for some reason the City didn't have a franchise with the electric utility, the electric utility does have condemnation authority. So they would have to potentially condemn all the territory they need to place their infrastructure, which would be a horrible burden on everyone involved. So I think that's just -- from a practical standpoint that's not really an option. I think without the franchise agreement this whole system falls apart.

MEMBER GOLD: So basically the franchise agreement gives them routes where they can run their lines. It's called rights-of-way --

CHMN STAFFORD: Right.

MEMBER GOLD: -- or whatever is.

CHMN STAFFORD: It gives them the right to occupy that space with their equipment.

MEMBER GOLD: So that is the franchise agreement?

CHMN STAFFORD: That is the primary function of it, I believe.

Wouldn't you agree, Ms. Grabel, Mr. Lusk, Ms. Hill?

MR. LUSK: I agree, Chairman. Yes.

MS. HILL: That's agreed.

MS. GRABEL: That is correct. And --

MEMBER GOLD: So the discrepancy we're having right now is with which of those rights-of-way we want to take advantage of to get the power that's needed to go from place to place, and the second thing is do we want it aboveground or belowground.

And the City's position is that in areas where it's required to go belowground you have to put it belowground, but TEP says it's almost impossible to do it belowground and still accomplish what the City is asking you to accomplish without raising people's taxes or bearing unbelievable financial burdens and time constraints on not only TEP but the residents of the City.

Am I getting that correctly?

MS. HILL: That is our position. I'll just speak for our position, Mr. Lusk.

MR. LUSK: And just to clarify, so we -- I don't want to get too far afield. But I think the preferred route is not in a Gateway Corridor.

MEMBER KRYDER: Say that again.

MR. LUSK: The preferred route of TEP in this line siting is not in a Gateway Corridor.

MEMBER GOLD: Understood. But they --

MS. GRABEL: Well, to clarify it does cross perpendicularly through Gateway Corridor streets.

MEMBER GOLD: Several gateway corridors. I know.

MR. LUSK: It does cross perpendicularly, but --

MEMBER GOLD: But, I mean, this is their preferred -- their preferred route, not your preferred route, maybe not our preferred route.

This is simply their preferred route. It's one route among many.

MS. HILL: That's correct.

And so just as a quick -- where it does cross the Gateway Corridor, given what we've heard from the City here, we are still asking for that finding for the perpendicular crossings.

MEMBER GOLD: Which makes sense and is logical, and I think the City would not disagree with you on that.

But I'm talking about our alternate -- I'm guessing. I'm guessing.

MR. LUSK: Well, we would disagree that the finding is required for the perpendicular crossing because there's specific relief allowed for that.

CHMN STAFFORD: Right. Which would be the special exception. And then so -- but I think what the utility's position is is that if they get the specific finding, they wouldn't need to pursue a special exception.

Am I correct?

MR. LUSK: I think we would disagree with that as well. I understand.

MS. HILL: That's it. I mean, that's where we are.

So essentially we intend to pursue the special exception even if you give us the finding.

However, what I think this Committee has heard is that the City can't commit to anything. And because the City can't commit to anything and we need to get a line built, we have to do something. And so we've come to this Committee.

CHMN STAFFORD: Right. So you would say -- so you would say that time is of the essence for this project?

MS. HILL: Yes. We -- to be just frank, and this is, again, an understanding of the political and logistical and open public processes the City has to go through, this is not an indictment of those processes.

We have been doing this for years, and we

are out of time. We have been working with the City since 2019. Here's where we are. We need the finding.

MEMBER GOLD: So now I would ask Mr. Lusk. Do you think there will be any objections to them crossing corridors perpendicularly?

MR. LUSK: From whom?

MEMBER GOLD: From the City. If TEP --

MR. LUSK: Well, the City specifically created a process that allows that.

MEMBER GOLD: Okay. So that's not a problem.

They can go under the assumption that they can cross corridors perpendicularly to accomplish this task.

MR. LUSK: Right. They can get a special exception to do that. And there's a specific process for that developed with TEP.

MEMBER GOLD: Yes. And you would ensure that that happens at a quick pace so things could be done letting them know that they can cross the perpendicular lines. Yes or no?

MR. LUSK: Well, that would be my -- I mean, I don't work -- I'm not the zoning examiner, so that's not my position.

But I'm sure PDSD would do -- would do as

best they could, yes.

MEMBER GOLD: Why haven't they done this already?

MR. LUSK: That would be the applicant's question.

MEMBER GOLD: Well, I'm asking the City because --

MR. LUSK: No, the City doesn't file the application. The applicant does.

CHMN STAFFORD: Right. And the utility needs a route to file the application.

MEMBER GOLD: Yes.

CHMN STAFFORD: So we're kind of in a catch-22 here or a circular pattern, you know, because they need a route so they can request a specific special exception. They can't request a special exception until they have a route. So they're here to get the route. So that's -- I think it's --

MR. LUSK: Well, and if I could, Mr. Chair.

I think there was some discussion yesterday about the Vine special exception process. That's a different special exception process than the special exception process that's allowed for the Gateway Corridor Zone, which was developed with TEP.

So it's not necessarily so that a route

would be required, although the crossings would have to be identified.

CHMN STAFFORD: Right. So the specific crossings, which -- okay.

MR. LUSK: Correct.

CHMN STAFFORD: I guess so if they identify the crossing specifically, they could get -- they could get the special exception, and the rest of the line could be nebulous as long as it didn't involve another crossing of a Gateway Corridor Zone?

MR. LUSK: Sure.

CHMN STAFFORD: Okay.

MS. HILL: So I think, though, there's still a disconnect in that Mr. Lusk is as an attorney and he's stated on many occasions he can't make these decisions.

I still from the fact witness that is here and the evidence that is in the record, if you take a look at UAZ I think it's 23, which was entered in, which was the zoning examiner's decision about the special exception for the Vine Substation that says we don't know where the line's going to go, I don't --

CHMN STAFFORD: That's 22.

MS. HILL: 22. Thank you. I don't think that Mr. Lusk here -- I don't -- and I don't -- what I

don't want to do is create a situation where we're trying to hold Mr. Lusk in his position as attorney for the City to a commitment that a fact witness couldn't make.

MEMBER GOLD: Understood. So --

MS. HILL: And I just don't think that's appropriate or fair.

MEMBER GOLD: And I'm aware of that now.

So I would just make a generalized statement that this should have been done between the City whatever department is in that bureaucracy and TEP long before today, and it wasn't done, to make the project go smoother.

But we're not there now. We're here now. So the situation is my understanding they're probably not going to have an issue crossing perpendicularly on whatever routes they choose and then present, and then it will be approved.

My concern right now is the route. And the route which is the shortest, which is the least expensive, which is the fastest to do is on one side of the equation.

On the other side of the equation is the laws of the City of Tucson, the feelings of the residents who live there, and the inconvenience that would be caused by construction within the city limits for a

period of time. And all of that is aimed at a suspense date of 2027.

Now is that an arbitrary suspense date? Can that be changed, or is that a date when it has to be accomplished?

MS. GRABEL: Member Gold, I think we should address that to the fact panel.

MEMBER GOLD: Okay.

MS. GRABEL: So let's let Mr. Bryner or Mr. Lindsey answer that question.

MR. LINDSEY: So, Member Gold, as we testified earlier last week, any delay in the 2027 date is going to require additional investment in our aging, old system.

So if it does slide past '27, we're just going to be spending additional capital on the 46kV system potentially in the substations and the 4kV system, all investment that would be better spent on this project.

MEMBER GOLD: Understood.

And if I remember when we carried to it extreme, people can die if we don't get power there and an emergency happens.

Now, if you're going to spend -- now, let's assume this project doesn't happen, and you're forced to

spend a ton of extra money, who pays for it? The ratepayers? The taxpayers? TEP?

Who pays for it?

MR. LINDSEY: So it would go through our normal system reinforcement-type process where we would need to -- this scenario you're presenting, Member Gold, is kind of a restart for us. So we would be back to the beginning planning phases.

MS. GRABEL: Mr. Lindsey, I think the question is if we were required to spend the money on rebuilding our 46kV system, we would just pursue it through a normal ratemaking process, wouldn't we?

MR. LINDSEY: That's correct. Yes.

MS. GRABEL: So ratepayers would pay for it; correct?

MR. LINDSEY: Yes.

MEMBER GOLD: So the rate -- it would cost, and it wouldn't cost TEP, it would cost ratepayers.

Okay. Pretty much you've answered the first set of questions that I had.

Mr. Chairman, back to you.

CHMN STAFFORD: All right. I think Member Richins has a question.

MEMBER SOMERS: Mr. Chairman.

CHMN STAFFORD: Member Somers.

MEMBER SOMERS: Just a short question.

We talked a little bit and heard testimony about an exception process through the City.

Would that process be open to discussions from the applicant on if -- if the transmission line went through an area where it was supposed to be undergrounded but the cost or technical reasons didn't really allow for that, could the applicant make an approach to the City to reach an exemption --

MS. GRABEL: Mr. Bryner.

MEMBER SOMERS: -- to be able to put them overhead?

Thank you.

MS. GRABEL: Mr. Bryner.

CHMN STAFFORD: All right. Mr. Bryner, I believe, can answer that question. I seem to recall a slide that had the criteria for the special exceptions.

MR. BRYNER: That was one of the City's exhibits.

I don't know, Mr. Lusk, if you recall what that is.

MR. LUSK: I believe it's COT-8.

MR. BRYNER: So if we could go to COT-8.

I don't remember which slide number it is.

MR. LUSK: I apologize. It's about eight

or nine slides in, I think.

CHMN STAFFORD: That was the witness presentation. Yeah.

MEMBER SOMERS: That is an excellent memory. I have vague recollections of it. And you can tell me it's eight or nine slides in, so you're winning.

MR. LUSK: That's right. That's it exactly.

CHMN STAFFORD: Can you see that, Member Somers?

MEMBER SOMERS: Yes, I can.

MR. BRYNER: Okay. So in trying to answer your question -- actually, Member Somers, can you restate your question for me one more time?

MEMBER SOMERS: So this process -- let me -- let me paraphrase it.

If you find an economic or technical reason where you couldn't do an undergrounding through an area that would require it by the ordinance, is there a relief process to go through the City to get a waiver for that?

MR. BRYNER: So, yes, I believe there are.

So we have the one, two, three, four, five six, seven, eight -- sorry, eight different criteria that are under this special exception. And the -- under F it says, "The transmission lines are proposed in an area

where there is the existence of railroad, highway, or bridge crossing or underground installation would interfere with other existing underground facilities."

MEMBER SOMERS: Okay.

MR. BRYNER: So I think that might be somewhere where you can seek an exception. But if you -- and that's one where you just need to meet one of the criteria.

I know in drafting this with the City that was intended for, like, along Kino Parkway where it crosses over Aviation and a couple of bridges. I'm sure that wasn't the only thought in mind, but that was the specific thought because that presented challenges to undergrounding.

CHMN STAFFORD: But I would note that cost is not called out in this.

MEMBER SOMERS: That was my follow-up question, is cost included in this?

Thank you, Chair.

CHMN STAFFORD: Yeah. No, specifically cost is not a factor of this.

MR. LUSK: Can I follow up with that, Mr. Bryner?

CHMN STAFFORD: Please, Mr. Lusk.

MR. LUSK: Or with Mr. Bryner. Sorry.

So as it relates to discussion earlier, Mr. Bryner, about perpendicular crossings, is there criteria associated with that?

MR. BRYNER: Yes, there is.

MR. LUSK: And what is that?

MR. BRYNER: It's criteria D. "The relief is requested for a segment that perpendicularly crosses a Gateway Corridor Zone."

MR. LUSK: And your understanding of these criteria, these are criteria that allow the applicant to apply for this special exception?

MR. BRYNER: So, yes, this doesn't list everything.

MR. LUSK: Right.

And there are other concerns that can be brought out during a public hearing?

MR. BRYNER: I assume during a public hearing, but also just in applying one of our -- one of our concerns as the company -- and I was really hoping that we could get more definitive answers yesterday from your witness, and I understand why -- why he couldn't provide those.

But there's so many components of the language -- both within this and references to other portions of the code that you have to meet in order to be

granted a special exception, there's so many pieces of language that are subject to interpretation, and we've not been able to get a clear definition from the City on the definition of those, nor from your witness.

And so it leaves us in a position where we don't know how that will be interpreted. And so we don't have great confidence that we would be granted a special exception.

MR. LUSK: Well, that seems different from your testimony earlier where you were confident that you would be able to get a special exception for a perpendicular crossing.

MS. GRABEL: Mr. Bryner, let me follow up on that.

There's the one portion of the line --

MR. LUSK: Can you answer the question first?

CHMN STAFFORD: What was the question?

MR. LUSK: The question is that his testimony appears to have changed from being confident to getting a perpendicular special exception to not being confident now.

MR. BRYNER: So I'll agree that that may be inconsistent with some of my testimony.

But can I qualify that?

MR. LUSK: Sure.

MR. BRYNER: So there's one place where I'm a little worried about it, and that's on our preferred Route 4 where it crosses Broadway. And that has to do with where does the University Area Plan begin, where does it end, because that's in the code under the special exception, it sites 3.4.5 --

MR. LUSK: Correct.

MR. BRYNER: -- if I'm recollecting correctly, which states that it needs to be consistent with any specific plans.

MR. LUSK: So if you were able to get clarification for that, you would be even more confident in your earlier testimony?

MR. BRYNER: If we could get clarification on that as well as clarification on the language within the University Area Plan that states where possible.

MR. LUSK: Well --

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: There's something else I would like some clarity on as we're discussing this because I apparently pulled a pin out of a grenade here, Member Gold. Member Gold ought to like that analogy.

What I'm seeing on several of these items,

D, E, F, G, especially the ones -- F I think is the one we're referring to, there are ellipses at the end of the sentences, clearly a truncated report version on the slide.

I would like to see in code or ordinance from the City of Tucson before we begin our deliberations whether cost is indeed a factor that can be brought to whatever committee that would -- that would meet on deciding a special exemption.

MR. LUSK: Thank you, Member Somers.

If I might answer, Mr. Chair.

CHMN STAFFORD: Yes. Certainly, Mr. Lusk.

And I guess what he's asking to see is if you could provide --

MR. LUSK: The full code section?

CHMN STAFFORD: -- the full exception -- the full set of exceptions so that we can see the full criteria.

And then we'll see if the word "cost" is in there anywhere.

MR. LUSK: Sure. Member Somers, we can provide that.

I can tell you at this point that the ellipses don't remove any substantiative provisions. It was just to get it on the slide. I apologize about that.

But we can provide the full code section for you.

MEMBER SOMERS: Yeah, I have no complaint about that. You have to make the space. But I would like to see what else is in there so we -- I agree with the Chair if we could see that full code so we can have that for our deliberation.

MR. LUSK: We can absolutely provide it.

MEMBER SOMERS: Also, could we get this slide down so I can see faces?

MEMBER RICHINS: Chairman.

MEMBER LITTLE: Mr. Chairman.

MEMBER SOMERS: I always like to see expressions.

CHMN STAFFORD: Wait one second. Okay. There you go.

Is that better, Member Somers?

MEMBER SOMERS: Perfect. Thank you, sir.

CHMN STAFFORD: Now, so, Mr. Lusk, how big is the section?

This is part of the UDC or is this for -- where -- this language here, the relief in the GCZ underground requirement, what exactly is that from?

MR. LUSK: So that's in Section 4.9 of the code section. It's related to the utility use group.

The special exception process was added in there as the ability to grant -- grant relief specifically for transmission lines as, of course, written with TEP's input.

CHMN STAFFORD: Is that in the UDC?

MR. LUSK: It is in the UDC, correct.

CHMN STAFFORD: The UDC is, what, some 500 pages or something, isn't it?

MR. LUSK: I've never had a chance to --

CHMN STAFFORD: I believe it's --

MR. LUSK: I don't think it's 500 pages, but it's pretty -- it's rather relatively lengthy, yes.

CHMN STAFFORD: Well, was the UDC already admitted as an exhibit is my question?

MR. LUSK: The entire UDC has not been admitted as an exhibit. I could provide an exhibit of applicable -- what we believe are applicable UDC provisions if that would --

CHMN STAFFORD: I'm just -- I thought a good portion of it was already in the record. I'd have to go back and look through the --

MR. LUSK: Whether it's in the record or not you said?

CHMN STAFFORD: Yeah.

Didn't -- Mr. Dempsey, did you attach a

chunk of that?

Okay. Then I'm trying to recall. I thought there was a portion of it in there already.

MR. DEMPSEY: I had read -- I just had the Arizona Revised Statutes.

CHMN STAFFORD: Okay.

MS. HILL: So, Chairman Stafford, one of the things that might help is that we could bring it up. It's a publicly available document. It's an ordinance. You could take administrative or judicial notice of it. And then we could pull it up and discuss it.

CHMN STAFFORD: Then I will take administrative/official notice of it, and we can pull that section up for Member Somers right now, couldn't we?

MS. GRABEL: We can.

MS. HILL: I will allow Mr. Lusk to do that.

CHMN STAFFORD: All right.

MS. GRABEL: I think Mr. Ancharski is doing it.

CHMN STAFFORD: All right. As we'll work -- so we'll work on that for now, Member Somers.

I believe other members have questions while that's pending.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Did you have -- unless you had another question before you saw the code.

MEMBER SOMERS: I'm sorry, are you referring to me, Chair?

CHMN STAFFORD: Yes. Yes. I want to make sure you were done asking questions while -- so we can move on to other member questions while they're pulling the code up so you can see exactly what the wording is that's missing.

MEMBER SOMERS: Yeah. I am -- yeah, that's it for my question. Thank you.

CHMN STAFFORD: Okay. All right. Member Hill.

MEMBER HILL: I just had a suggestion for Member Little and Member Somers. If Grace could drop the link into the chat so that particularly Member Somers could review that. That might be helpful so that he -- they can take a closer look.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: That maybe easier than getting it on screen.

Member Little.

MEMBER LITTLE: I have a question that -- just kind of a follow-up question.

Did the recent superior court ruling

address any of the issues that are listed in that slide that we were just looking at, that section of the UDC, or did the ruling just talk about general compliance?

CHMN STAFFORD: I'll let Mr. Lusk and Ms. Grabel address that unless Ms. Hill would prefer to do it.

MS. HILL: I'll take it.

MS. GRABEL: We'll let Ms. Hill address that.

MR. LUSK: So from the City's perspective, what the superior court did was affirm our ability to require undergrounding within the Gateway Corridor Zone and affirm our zoning administrator's determination that it is -- that it is required -- utilities are required to underground within the Gateway Corridor Zone.

MS. HILL: And just as a caveat to that. So while I will agree generally with Mr. Lusk's assessment of it. So there are two things. The appellant time line -- the time to file notice of appeal is not yet at this point. The company does not concede that that ruling is going to not go -- we're not ready to say that's not going to go up on appeal, number one.

But, number two, one of the findings in that appeal -- or in that specific action was certainly that this is not an upgrade. That is what Judge Bryson

found that this was not, in fact, an upgrade, which I do think is relevant to the special exceptions process.

There were some other issues too. There were summary judgment issues on a couple of other things that we're also considering very strongly.

And so but for the purposes of this -- we have always maintained this. For the purposes of this finding that we are asking for, this Committee had to always assume that the gateway applied and that -- that the Gateway Corridor Zone, that the UDC applied because otherwise if it didn't apply there would be no reason for us to ask for the finding.

And so I don't think that it changes this Committee's analysis of that.

CHMN STAFFORD: Right. I think -- so the -- basically the finding of fact that the ruling relied on was that going from the 46kV to 138kV is not an upgrade.

MS. HILL: Particularly, too, it is a highly fact-specific finding. And the factual record itself is, of course, something that we're considering.

But this was a very factual finding based upon this particular project.

And so -- and we've always maintained that this Committee for its purposes and its jurisdiction has

to assume it does apply.

MR. LUSK: And I would agree with that.

MEMBER LITTLE: Thank you.

MR. LUSK: Oh, go ahead, Member --

MEMBER LITTLE: That's very, very helpful.

CHMN STAFFORD: Okay. Thank you, Member Little.

MR. LUSK: Mr. Chair, and I just want to for the record there's no 46kV in the Gateway Corridor Zone on Campbell.

CHMN STAFFORD: Right. Right.

MS. HILL: We agree.

CHMN STAFFORD: But what's -- what is -- what is on Campbell?

MS. HILL: It's distribution.

MR. LUSK: A distribution line.

MS. GRABEL: Let's let -- let's let the fact witness answer the questions.

CHMN STAFFORD: Mr. -- yeah. Mr. Bryner, because, like, I have several questions about different sections of the route, and one of them is there are utility poles along Campbell Avenue as we speak now.

What voltage are those lines?

Is that the 4kV? 14kV?

What is that?

MR. BRYNER: Yes, Chairman Stafford, happy to answer that question.

So we do not have any 46kV in any portion of Campbell Avenue within the Gateway Corridor today.

If you'll recall that little portion of Campbell Avenue where we were -- where we visited the old substation site, there is 46kV on that, but that's outside of the Gateway Corridor Zone.

The remainder of the poles that you saw on Campbell Avenue as we were on the tour, those are -- I believe they're all 4kV.

Do you know?

MR. LINDSEY: Chairman Stafford, so we do have a mix of distribution of 4 and 14kV in this area.

Further down south near the Kino area most of that's been upgraded to 14.

The poles that were I have a feeling we're talking about along Campbell I'll say north of Broadway, that's our old 4kV system, but it is distribution.

CHMN STAFFORD: All right. Yeah. So, yeah, I knew we'd seen poles between Broadway and -- was it Ring Road or so, yeah.

MR. BRYNER: Correct.

CHMN STAFFORD: But those are the distribution poles.

Okay. And so but the issue in the court was -- was it going from 4kV to 138kV, not 46kV to 138kV?

MR. LUSK: I think the argument that TEP made in the -- before the superior court is that replacement of poles from a distribution to a transmission line is an upgrade.

CHMN STAFFORD: Well, that's a heck of an upgrade.

MS. HILL: I'm going to say that I think that there are some nuances there.

You know, I'm not going to speak for what the City argued in the superior court proceeding. And I think our arguments speak for themselves. And there are transcripts we can enter into the record.

But, you know, the argue -- it was not specific to that. Our -- I think this Committee has heard that what we are doing in our perspective is an upgrade from a 46kV distribution -- or a 46kV system to a 138kV looped system and that the 46kV substation that is immediately adjacent -- and it's actually smack in between the University of Arizona's existing substation that they own and the site for the Vine Substation -- is going to be retired.

To us that's an upgrade. To the superior court it was not.

CHMN STAFFORD: Right. Po-tay-to, po-tah-to. But I think -- so let me just clarify, Mr. Bryner.

So the existing substation on Vine that's the university's substation, that is going to retire?

MR. BRYNER: So our -- our U of A medical substation, that will be retired along with seven other substations.

CHMN STAFFORD: Okay. All right. But I seem to recall some testimony about the wall would be made to match that -- the existing substation.

MR. BRYNER: Yeah. Chairman Stafford, so the wall that's around -- again, there's two substations there. The wall that's around the university-owned GIS substation that's kind of a red brick wall, our proposal was to match that wall for the wall around the Vine Substation.

CHMN STAFFORD: Okay. But the university substation will be retired, then?

MR. LINDSEY: Chairman Stafford, so what we're looking at if you recall the tour, we stopped at the proposed Vine Substation several times.

Due south of that is our U of A medical substation. TEP owned and operated that. That will be retired.

CHMN STAFFORD: Okay.

MR. LINDSEY: Then due south of that substation is a substation owned and operated by the University of Arizona. Parts of that substation will be retired.

So today we serve the U of A at 46kV. Once this project is complete, we'll serve the U of A at 13.8kV.

So the substation will remain in -- from a perspective that that's how we'll connect to the university, but their transformers will be removed from that substation.

So I would consider it a partial retirement, but the footprint of that facility will remain.

CHMN STAFFORD: Okay. So it's getting downsized.

I guess Member Richins has a question.

MEMBER RICHINS: For a long time. I've been waiting so patient.

The finding of fact on this undergrounding issue, what is the reason for that finding of fact?

Can you restate that, why you want us to take that action?

MS. GRABEL: Certainly. I'm happy to, to

restate that.

If you recall, we could go down the special exception process, but you remember the City's testimony yesterday. We are not comfortable that we would be granted a special exception. And there's a couple of reasons for that.

The first is that one of the perpendicular crossings, as Mr. Bryner mentioned, crosses through what we believe is in the University Area Plan. The fact finder, in granting a special exception, has to make an additional finding before even being allowed to grant a special exception that we're not in violation of any applicable neighborhood or area plans.

When I asked the City's witness on the stand yesterday whether that finding could be made, he have unable to give us an answer.

And so if the UAP applies and the Gateway Corridor applies, we're concerned that the City could require us to underground all of the areas that run through the preferred route that conflict or they believe conflict with the University Area Plan.

I believe our concern was exacerbated yesterday when we saw the City of Tucson's Exhibits 8 and 9 where they started raising other issues such as the location of the Vine Substation and wanting to go back to

the drawing board.

And as you see, there's been ample testimony, time is really of the essence here. And we've exhausted the routes. We've exhausted the ability to have that conversation. So that's why we need a finding.

MEMBER RICHINS: What I'm trying to get is what is your reason for concern of not -- I mean, I get that you're worried, the business risk, the uncertainty around the process.

Why are you seeking it in the first place?

Why are you seeking that --

MS. GRABEL: Certain costs.

MEMBER RICHINS: Okay. Okay. So going back to the franchise agreement -- this is what I'm trying to reconcile.

The franchise agreement has been established as the governing document of the relationship between TEP and the City of Tucson. If you go to page 3, Section 21 "Undergrounding," it says in there in Section (a) that the City if they require that has to bear some of that cost.

Am I missing -- "The City may require the company to place lines underground if the city pays the difference between the cost of placing such lines underground and the cost of placing them aerially."

Section A -- Section 21(a) of your franchise agreement.

Mr. Lusk, please hold your question.

MR. LUSK: Sure.

MEMBER RICHINS: The other -- in Section (c) "Exception to Undergrounding," "The company shall be required to place new aerial transmission or distribution lines" -- and I believe we've established these are new lines, new construction -- "new aerial transmission or distribution lines underground only when such placement is feasible for technical or system reasons. Such reasons cannot include the monetary cost of the proposed undergrounding project."

I don't see how this Committee can supercede a franchise agreement that's very clear that costs cannot be the factor.

MS. GRABEL: So Ms. Hill is the queen of the franchise agreement, so I will let her address your question.

MS. HILL: Well, so actually I'm going to let Mr. Lusk -- Mr. Lusk and I have actually spoken about this. And so I'm going to let him start with the City's discussion of that.

I believe in our conversations Mr. Lusk believes that this Committee has the authority to make the finding.

CHMN STAFFORD: Mr. Lusk.

MEMBER SOMERS: Mr. Chairman.

MS. HILL: Let me -- let me just -- I just so --

CHMN STAFFORD: One second. There's a question to Mr. Lusk. Mr. Lusk will answer. And then we'll hear the next person. But for now Mr. Lusk is going to answer the question.

MR. LUSK: As to the last question that Ms. Hill posed, which is the members of this Committee do have the authority under state law to make the finding that we're discussing.

As to how that gets paid for and related to costs going to your question, Member Richins, the first part of that sentence in (a) says where -- "in any area where the company is not already required pursuant to federal, state, or local law." That's where Section 21 applies.

So in this case what the assumption is and what the applicant has to and the members have to assume is that they're already required by under local law to be undergrounded. So that Section 21 doesn't necessarily address where those costs lie, if that makes sense, other than the fact they don't rely with the City.

MS. HILL: And if I may.

CHMN STAFFORD: So you're -- wait -- and then -- wait -- let me get the City's perspective -- or, I mean, the utility's perspective, and then you can ask another question, right?

MS. HILL: And so what we -- what we believe -- and these conversations have occurred -- like, when we say we've been doing this since 2019, we're really not kidding. We've been working through this. And it's part of the reason that the franchise was another possibility like additional fees.

We believe, and I think this is agreed upon, that section (c) modifies only the portion of where we are otherwise required -- it only -- it only modifies that little section. It doesn't -- it doesn't speak to this Committee's authority, because if you -- I'm having a hard time explaining it here.

So --

MR. LUSK: If I --

MS. HILL: Go ahead.

MR. LUSK: If I may, I think what the applicant and the City both agree on is that the franchise and this Committee's authority are separate. So they don't necessary -- one doesn't trump the other.

MS. HILL: Correct, in this situation.

MEMBER RICHINS: And I believe that makes

sense, which is why I'm struggling with this particular finding.

It just doesn't seem to be sitting -- I feel like you put the Line Siting Committee between the relationship between TEP and the City of Tucson to specifically have somebody to blame in court, and it feels very uncomfortable. And I don't really want to be in that position.

And I know I'm making an outlandish accusation at you, I get it, but I'm doing that for specific purposes. I want us to understand that your relationship between the two of you so transcends what we're doing here in this Committee and that your work on the franchise agreement that you're going to have to complete here very quickly is an opportunity, and you know that. I know you both know that.

And I'm not going to save Tucson from itself. And I'm not going to save TEP from making claims about costs which I don't think have been fully proven here. So the cost claims have been all over the place.

So I think what we really need to get down to is -- is establishing what our route parameters are, and then you guys will probably have to duke it out after that, but I don't feel comfortable whatsoever providing a finding in that instance.

But this is a very specific instance. This isn't a broad authority that we would yield as the Committee. It's very specific because Tucson has very specific rules. You have a very specific franchise agreement. This is a unique situation that we need to govern through.

MS. HILL: So, if I may, Member Richins. May I refer back to Section 21?

And I would note in response to your concern look how long the applicant waited to get here, to get to this Committee. Five years. Five years. We spent five years working through this, and I just would like -- I understand what you are saying. But this is the forum afforded by Arizona state law.

MEMBER HILL: So you're asking us to mediate between the City and TEP?

MS. HILL: What we are asking you to do is exercise your authority under state law. It's -- the City and TEP, I agree, there are going to always be things that we have to work out. But this Committee has the authority under state law, and we are asking you to exercise that authority in a very specific circumstance.

And in those circumstances, our preferred route is asking for a very, very limited section where you would have to make a finding. Very limited.

Now, Member Richins, can I point you back to Section 21? Because I would like to walk through that with you, if I can.

Okay. So if you take a look at with section (a), start with (a), it says, "Subject to Subsection (c), in any area where this company is not already required pursuant to federal, state, or local law or agreement, to place its transmission or distribution lines underground, in any new construction or relocation of aerial transmission or distribution lines, the City may require the company to place such lines underground if the City pays the difference between the cost of placing such lines underground and the cost of placing them aerially."

If the City's position is that the UAP does not require the undergrounding of these, which I keep hearing may be the position, then I believe that Section 21 requires the City to pay for that.

Now, if they want to?

MEMBER RICHINS: "Subject to Subsection (c)."

MS. HILL: "Subject to Subsection (c)," but I believe that the City is required to pay for that.

Now, if, however, the University Area Plan is determined to be some sort of enforceable local law,

which I'm not sure it is, but the City has yet to take a position on that, then --

MR. LUSK: I'd like to respond to that specifically because it --

CHMN STAFFORD: Wait until she finishes her answer, please.

MR. LUSK: Okay.

MS. HILL: -- then subsection (c) kicks in. Because where the local -- if the City -- it says here, the City may -- so (a) says that if there's no local law, then the City -- and they want us to underground it, the City has to pay the difference, right? That's what (a) says.

What (c) says is that, "The company shall be required to place new aerial transmission lines or distributions underground only when such placement is feasible for technical or system reasons. Such reasons cannot include the monetary cost of the proposed undergrounding project."

We believe that subsection (c) applies when we are required under local law to do so.

And so as a result, Member Richins, I hear what you're saying. You can apply it as you see fit.

MEMBER RICHINS: Yeah. I think we have a different -- because I believe the UDC is the local law

that's in place to do that. So, yes, there is a local law in place.

MS. HILL: Right. So let me then go a little further down there and say that we're not arguing that the UDC isn't a local law. We're not going to say that, right? That would be --

MEMBER RICHINS: Yeah. And we're not arguing that we don't have the authority to grant you a finding.

MS. HILL: Correct.

MS. GRABEL: If I may add to the application of subsection (c).

The way that I believe we interpret it is that if (a) requires us to underground, we can do so unless we believe it's not feasible. And for the limited purpose of the franchise the exception only applies if we're not -- we don't have to underground if it's not feasible, and for that limited purpose it can include cost.

That doesn't mean that cost can be a consideration in the statutory interpretation that we're asking this Committee to make. The franchise cannot interpret a state law.

MS. HILL: That's correct. And it can -- and so just one other thing too.

To build on that, not only can the franchise not interpret a state law, it cannot -- it cannot define the meaning of feasible under state law. This Committee can also determine on its own accord that there are other issues of technical feasibility, which may include timing.

MEMBER RICHINS: I understand that. And I appreciate what you are saying. I don't think you've established that there's a technological impossibility of being able to underground and that it's infeasible. And so it seems like we -- it knocks us down to that.

And I agree that the franchise isn't the force of law like the UDC is or the University Area Plans, whether they are or not, but it governs your relationships on how you guys are going to handle these kinds of transactions.

And now it feels like the parties are warring over a 20-year-old franchise agreement that they couldn't get the new one past the voters a couple years ago. And I'm being asked to arbitrate that.

And it just -- it is a very unique circumstance. And we will not yield our authority to grant such a finding as you're requesting here. I just am trying to find a reason to do that, and I haven't received one yet. And so I'm just struggling through

that.

CHMN STAFFORD: Let's let -- I think Mr. Lusk has been waiting patiently to give his response. Please do so, Mr. Lusk.

MR. LUSK: Thank you, Mr. Chair.

Member Richins, I think the City would ultimately agree with you on most of what you said.

And what we're asking for is only that we be allowed to engage in that relationship as you described it here locally with our already available processes that we have actually worked cooperatively to create.

So in making that finding -- and, again, we don't know what -- and I agree with you we're not quite sure exactly what that finding even means going forward because, you know, it doesn't necessarily say that just because you grant a route doesn't mean we can't regulate how it goes there. So there's some nuance there.

The other thing that I think would be helpful I think maybe for the Committee is to sort of distinguish between the two -- because there's actually two findings that have to be made here. One is the finding for what Mr. Bryner discussed about the University Area Plan, but there's also the finding as to the Gateway Corridor Zone itself and its requirements.

And I don't know -- and I don't know that that -- you know, I'm not going to tell you what the -- at this point make a closing argument as to what we think the record shows about that, but those are two separate things.

And the testimony yesterday was as it relates to the area plans and the neighborhood plans while it wasn't specific to any particular plan, it was -- Mr. Castro did testify that there's a difference between policy and regulation.

MEMBER RICHINS: Chairman, just -- just quick. I mean, can a finding be related to the parties in the franchise agreement to -- I mean, this goes to a core issue with Tucson. You guys are very bad for business. You're very difficult.

And I'm making an editorial comment. I realize that. But Tucson is not a business-friendly place, which is why TEP finds itself in this situation.

They don't have certainty, and they're terrified of that. And I don't blame them one bit because I've watched Tucson operate over the years. You guys need to get your act together to be able to negotiate this franchise agreement and solve this issue.

And I just -- so my question is -- final question here -- and then I'll shut up -- is is there a

possibility of a finding that talks about or refers to the franchise agreement and the desire of the Committee to see the parties work that out?

CHMN STAFFORD: Well, I mean, it's worth noting that the finding does not apply to franchising. In the first part of the statute it says that any certificate the Committee grants has to be conditioned on compliance with all applicable ordinances, master plans, regulations, state -- yada, yada -- except that the Committee may grant a certificate notwithstanding any such ordinance, master plan, or regulation exclusive of franchises if the Committee finds the fact that compliance of such ordinance, master plan, or regulation...

So we're talking about ordinance, master plan, or regulation. If we find that one of those is unreasonably restrictive and compliance is not feasible due to technology available, we can issue the CEC not mandating compliance with that.

And I think we need to be specific which ordinance, master plan, or regulation we're talking about. And there's a list of potential ones in the application that I attempted to ask the City about yesterday, but they didn't have a -- they couldn't give an opinion on it whether it would require undergrounding

or not.

And I believe that was what the applicant was going to address in their latest CEC -- updated proposed CEC. I haven't had a chance to look at it yet.

Has it been filed?

MS. GRABEL: Yes. I believe it's been filed. Mr. -- yes, it has been. And Mr. Ancharski can pass out a copy.

I mean, I think what you'll see in the findings that we propose is we're asking for the finding to be made on Gateway Corridor Zone and the University Area Plan.

If Mr. Lusk's research reveals that a historic district overlay does require it, we'll ask for it to be applied to that too.

And let me quickly address Member Richins's question. We are not asking you to arbitrate. We've been at the table with the City that has all of the political power here for five years.

What your finding would do is give us some leverage. As Ms. Hill already said, we intend to go through the special exceptions process, but we're at the burden of the City in this regard. And so that finding would be very helpful as we go through that process.

We'll only have to use the finding if the

City proves to be unwilling to cooperate with us. I think that that's our position at present.

CHMN STAFFORD: And that's going to -- I think that's how I kind of perceive the situation is that the City and the utility are at an impasse, and they're looking for the Committee with this finding to tip the scales to break that impasse.

MEMBER RICHINS: And, Chairman, you gave a comment earlier about condemnation authority.

How is -- is condemnation authority for the utility governed under state law, the franchise agreement, local law?

I actually don't know.

CHMN STAFFORD: It's state law. I couldn't cite the statute, but I'm 100 percent sure it's state law.

MS. GRABEL: 12-1111.

MEMBER RICHINS: Okay. Thank you.

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: I'm going to try to turn my camera on, but every time I do I seem to lose you, so I hope I don't.

Before we give the poor court reporter a break, because I think she's been going at a 100 miles an

hour, I received a link for a utilities use group, which is an ordinance for the City of Tucson, I believe.

So Section 4.9.11, under A, "Distribution System," if you go to Item 13 on the third paragraph, I think that it answers potentially a little bit of the question I had earlier about whether cost of the system could be included in asking for a special exception.

This starts with -- the paragraph starts with "A special exception request to relieve the requirement to underground transmission must meet the required findings of UDC section 3.4.5."

CHMN STAFFORD: Member Somers -- Member Somers, you're breaking up. We can't hear the words that you're saying.

Maybe you should turn your camera off because I think --

MEMBER SOMERS: Hold on a sec. Yep. Is that any better, Mr. Chair?

CHMN STAFFORD: Yes. Yes. The court reporter is nodding her head. She can understand what you're saying now.

MEMBER SOMERS: -- I apologize for that.

CHMN STAFFORD: Okay.

MEMBER SOMERS: Okay. I'll try to speak up too to make sure, but if we -- so the section is No.

11 -- I'm sorry, 13. So I'm going to go back. "4.9.11, Utilities Use Group," Section "A, Distribution System." Item No. 13. And it would go down to the third paragraph. And the sentence starts, "A special exception request to relieve the requirement to underground transmission lines must meet the required findings of UDC section 3.4.5."

You go down a little bit further a couple more lines, it specifically calls out as an example "the Gateway/Scenic route." And after the comma it says, "unless it is technologically impossible and/or clearly financially cost prohibitive."

So would I interpret it correctly to say that if they hit a technological issue or if it is clearly cost prohibitive, then a special exception could be signed off by the City of Tucson?

CHMN STAFFORD: Thank you. That was helpful.

Member Richins, did you have a question?

MEMBER SOMERS: Mr. Chair, does it -- this is --

CHMN STAFFORD: And this is from what?

MEMBER SOMERS: Does this have to be entered as an --

CHMN STAFFORD: You're reading from the

UDC?

MS. GRABEL: I believe Mr. --

MEMBER SOMERS: Yeah. The link that was sent to me for --

CHMN STAFFORD: Right. And that is the UDC.

We can take official administrative notice with the UDC as --

MEMBER SOMERS: UDC. Yes. I do see that.

CHMN STAFFORD: All right. We do not need to enter that as a specific exhibit.

Mr. Lusk: Mr. Chairman, I -- may I for --

MEMBER SOMERS: Okay. Thank you very much.

CHMN STAFFORD: Thank you, Member Somers.

All right. Mr. Lusk.

MR. LUSK: Sorry. For specificity it's UDC 4.9.11.A.13.

CHMN STAFFORD: Thank you for that clarification.

MEMBER SOMERS: Thank you, Mr. Lusk.

Mr. Lusk: You're welcome.

CHMN STAFFORD: All right. Member Somers, is there anything further?

Because I think we're -- as you mentioned, we're at the close to 90-minute mark, and the court

reporter is ready for a break, as are we all.

MEMBER SOMERS: I think we should give our court reporter a break.

MS. GRABEL: Mr. Chairman, before we adjourn, I'd just like to ask this prior to adjourning.

CHMN STAFFORD: We're not going to adjourn.

MS. GRABEL: Oh, recessing, not adjourning.

I heard Member Richins say that he has not been -- he does not believe there's sufficient evidence in the record to make the finding that it's cost prohibitive or something to that effect.

Perhaps I'm putting words in Member Richins's mouth. But what I -- okay. I'll ask you to clarify what you said.

And we have the fact panel here. And so if you have any concerns with the testimony that's presented, I'd ask that you ask those types of clarifying questions now while you have the opportunity to do so.

MEMBER RICHINS: In response, thank you.

I don't think that sufficient evidence has been presented by -- there's been a lot of evidence presented by all of the parties that have really muddled the waters on what the cost calculators are. It's gone everywhere from the applicant saying 14 to 22 percent. Others have presented evidence that have shown it at 14

to 22 times more expensive. Others have presented evidence that has shown it to two, three, four, five times more expensive.

So that's what I'm talking about is that there's just a lot of -- I don't think a solid convincing case has been presented on what that cost escalator actually is.

CHMN STAFFORD: All right. I think -- so there's a lot of conflicting evidence that needs to be weighed.

But, I guess, what I'm hearing from Member Richins is that in weighing it he hasn't found that the applicant has met its burden to show that the cost is as excessive as it claims.

Is that correct a summation?

Okay. All right. Well, when we come back, we'll be -- I think we should talk to the fact witnesses more and the lawyers less and, you know, talk about the specific costs, the specific sections of the route, some of the specific issues with different sections and try to come up with a route that -- for this project.

Because I think it's clear that the need is there. I don't think anybody disputes that there is a need and that need is urgent, that they need to get this -- their system improved to maintain reliability.

And so I think it's just a question of where we put it.

And then the undergrounding issue's going to be does it have to go underground. If it does, who pays. And at the end of the day who ends up paying for it is really beyond the scope of what this Committee will do.

Obviously, we'll have to take it into account when we make our decision under the statute because it says we have to look at the cost of what the applicant has proposed compared to what we end up ordering it to do.

And if we order them to follow the city ordinances and it requires them to incur, say, an additional -- and I'm just throwing a random number out there -- an additional $50 million cost that will be borne by ratepayers, that's something we do need to consider in making our decision, especially between routes, if you have one route that doesn't require an undergrounding and one that would, I think that, you know, the cost is certainly a very relevant factor to consider in making our decision of where that line should go. I think we can all agree that that line needs to go somewhere.

So with that let's take our recess. We'll be back in about 15, 20 minutes.

(Recess from 10:34 a.m. to 11:02 a.m.)

CHMN STAFFORD: Let's go back on the record.

We have the cleanup panel. I think the members and I have questions about the routes.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Okay. I'm going to direct this to the -- to all of you, but I'm going to say this has been going on for approximately seven years. Am I correct in that assumption?

MR. LUSK: I think it's five.

MS. GRABEL: Five.

MEMBER GOLD: Five years?

MR. LUSK: Yes.

MEMBER GOLD: Okay. So for five years we've been trying to do this and we need the thing done by 2027. I understand the reasons why we need it done. I guess the reasoning may be more urgent now with the weather changes that we're seeing.

I see TEP has done due diligence. You've gone over and above with your routes and everything else.

Mr. Dempsey with the Underground Arizona, you've gone above board with giving us a lot of examples of what other communities have done.

Ms. De Blasi, I understand where you're coming from. You're looking out for the best for Banner Hospital. I don't see a university person present, but I'm sure -- who's the university?

MS. GRABEL: Sorry. I was thinking Banner. No one.

MEMBER GOLD: No, I don't see anybody at U of A. We've got letters from representatives who represent the public. We had a slew of people here giving their opinions, mostly not in my backyard. And you should underground things.

And we've seen a good deal of testimony from that side over there that says undergrounding is a bear in this area, it's something that has a whole bunch of constraints including time constraints.

The bottom line is -- well, the one thing I haven't picked on at the City of Tucson, and I don't know why more of your people aren't here. But, you know, I don't know the answer.

I will say that this should have been resolved years ago and this should have been resolved without all the bureaucracy but it wasn't. End result: Dave Richins says, you know, you're throwing it to us and the answer is the buck's got to stop somewhere.

So this Committee I would recommend would

make decisions where the buck stops from our perspective. It's then going to go to the corporation council and then it may go to the courts, you know, but it behooves everybody involved to say if we got to get this done by 2027 let's take a look.

We just had a situation where I got a call this morning, 14 power lines went down on Ina Road. Roofs were blown off buildings. Air conditioning isn't working. A whole bunch of stuff isn't working and we're going to see people who are going to be suffering. If you can multiply that in five years from now or ten years from now, where we're going to have worse weather, more population, inflation, god knows what else is going to go on, this has to be done.

So I would say at this point in time, there is a solution, and I believe before this Committee adjourns that we will come up with a solution. It may not be the best solution but we're going to give the corporation council options.

And I want to thank you for all the work you've done. And I want to chastise the bureaucrats who you work for, Mr. Lusk, for not giving you the ammunition and the wherewithal so you could have accomplished this two years ago or three years ago. But at this point in time, I just want to say thank you all, thanks for your

expertise. Thanks for your patience. Thanks for giving us a ton of information, sometimes even your personal opinions which I'm sure that's something that wouldn't have been appreciated by the bureaucrats.

But I want to thank you and we're going to persevere. We'll get this done. We will get this done. Thank you, Mr. Chairman.

CHMN STAFFORD: Thank you.

MEMBER SOMERS: Mr. Chairman.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: Thank you. I can hear -- I'm reverberating in the background, I think. I'll try to make this quick.

I'd be very careful with where the buck stops because it's probably not going to be on this Committee depending how we proceed with our deliberations. Ultimately we have -- whether that's the right --

MEMBER GOLD: You're breaking up too much.

MEMBER SOMERS: -- we're going to talk about that in a little bit.

CHMN STAFFORD: Could you say that last part again? You were breaking up.

MEMBER SOMERS: Thank you, Member Gold. I'm not responsible for the tech.

CHMN STAFFORD: Could you make your comment again, the last part of you comment again, Member Somers.

MEMBER SOMERS: It's probably interference from the power lines.

MEMBER KRYDER: How many gauss out there?

MEMBER SOMERS: Can we hear me now?

CHMN STAFFORD: Yes.

MEMBER SOMERS: Okay. We'll try this.

Ultimately, this decision's going to be, has to be, like Member Richins said, has to be hashed out between the leadership of the City and TEC, you know, at the end of the day it's not all one party's fault. There is a bureaucratic process, and I understand those can be hectic, but we've heard testimony that the City kept asking for a route and that route wasn't provided because the route wasn't decided by this Committee yet.

So some of this delay doesn't fall -- all this delay doesn't fall on the City. And ultimately if we make a ruling and it's not liked and this ends up in court on whether we have the right to do that, we can kiss that 2027 deadline goodbye. We're not going to fix anything. The City and the electric company have to fix this.

To -- I had a brief --

MR. LUSK: We lost him completely.

CHMN STAFFORD: All right. Member Little, are you still there?

MEMBER SOMERS: I know my Internet works. I'm here again. Thank you to the staffer who's been sitting over the button to make sure he puts me back on the meeting.

I have the CEC, the draft CEC, from the applicant. I just received it in e-mail.

My question for the City is does the City have its response to those items and requests? Have they reviewed it, made comment, and filed that with this Committee yet?

MR. LUSK: Member Somers, we received it this morning so, no, we have not done that. We can do that, of course.

MEMBER SOMERS: Yeah, if you would -- I would like to review the City's position before making decisions.

CHMN STAFFORD: Yes, the City could also file its own proposed CEC. The applicant is required to file one. Intervenors may. It seems like that would be a good thing for the City to do, especially given Member Somers' comments.

All right. Well, I have some specific questions for the cleanup panel here about the routes in

question.

So let's start with Route A. And the first portion of the route from the DeMoss Petrie Substation till at least surface Stone, they all share the same route, and that looks like the whole stretch of Grant Road is not a problem with anybody, and there seems the existing poles from an upgrade that was already done that would accommodate the 138kV line? Yes? Correct, Mr. Bryner?

MR. BRYNER: The poles that were done from a previous upgrade are primarily from Stone to the east. West of Stone there are existing poles; some of those would be the 46kV poles on the north side of the road, would be collocated -- sorry, the 46kV lines on the north side of the road would be collocated on the same poles as our 138kV line. The distribution that's currently on that would be placed underground.

CHMN STAFFORD: Okay. And then the -- eventually the 46kV system would be taken off and retired, because it's being replaced by the 138kV system; correct?

MR. BRYNER: So that would be our long-term goal. Some of those 46kV lines would not be affected by this project because they still serve other 46kV substations that would not be affected.

CHMN STAFFORD: And those are the ones that I'm presuming would be north of Grant Road.

MR. BRYNER: Correct. North of Grant Road and west of Stone, the lines, the 46kV lines east of Stone and hopefully I'm getting my directions right here, those are the ones that could be retired as part of this project. And we'd try to make use of those structures.

CHMN STAFFORD: Okay. Now looking at between routes A and B, they both go all the way to at least Park. And then I recall from the tour that Park Avenue already has significant poles for the 46kV system along the entire length of Park from Grant to -- I can't -- from the placement I can't see the other one. I think it's --

MR. BRYNER: Adams.

CHMN STAFFORD: -- Adams. But then there, I didn't see any poles on Adams between Park and Vine. So you'd have to add those. Now, were you looking to add those to the north or south side of the street? I'm pretty sure you want to do one or the other, you wouldn't want to go back and forth at least across that, like you had talked about on Campbell potentially.

MR. BRYNER: That's correct.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Are you talking about Route A or Route B?

CHMN STAFFORD: Both, because they share -- they're exact -- they're the same corridor until you get to Park Avenue.

MEMBER HILL: They don't -- they don't share Park, though, so that's why I was asking the same question.

CHMN STAFFORD: Right. Because Route B goes south on Park whereas Route A proceeds west -- proceeds east until it gets to Vine.

Which seems to be the most direct approach to the substation, but currently Vine doesn't -- well, north of the substation doesn't have any poles running along it. You see the distribution lines crossing it through the alleys periodically, but there's no line running down Vine itself.

MEMBER HILL: So your line of questioning is really about comparing Route A and B. When you started the line of questioning you said I want to talk about Route A first, and so that was my point of confusion. That's all.

CHMN STAFFORD: Okay. Yeah. Well, I'm talking about A and B and then we'll get to C and D. But I think I'm just going to have specific questions about,

you know, the physicality of the route. What's there, what's the -- where the lines would go. I mean, they've done a -- their Exhibit 32, they cleared up the corridor to make it more narrow, and in line with what they're actually going to build, because I remember when we watched the virtual tour it was like 400 feet wide and went into the neighboring streets, which is a little more of a corridor than we wanted to give them.

So, but I'm just looking at -- so I'm going to assume that B is preferred to A because you make use of Park, which has a bunch of existing poles whereas Vine does not.

MEMBER HILL: Are you asking the Committee?

CHMN STAFFORD: I'm asking Mr. Bryner.

MEMBER HILL: Okay.

MR. BRYNER: So, yes, that's one of the primary factors why B is referred over A.

CHMN STAFFORD: Okay. And then with the location of the substation that's -- it's being placed next to an existing substation, so I'm assuming that there was not -- I mean, we talk about routes but no one's talked about putting the Vine Substation any other location; correct?

MR. BRYNER: So that's where -- yes, that's correct. But as I testified to I think it was day one,

maybe day two, you know, we looked at 22 different sites to try to identify is there another location for this substation that might be more compatible with existing land uses, might be further away from residential areas? And ultimately what we found was we really only had that option.

CHMN STAFFORD: Right. So the substation, the Vine Substation location, that's not really up for debate for us. It's going to be -- that location is just a question of where the lines come in and go out of it.

MR. BRYNER: That's correct.

CHMN STAFFORD: All right. And that's because that's on the edge of the residential neighborhood. I forget which one it is to the north.

MR. BRYNER: Jefferson Park is just to the north. It's within North University.

CHMN STAFFORD: Right. Okay. And so -- and then B is the preferred route.

So I think on Adams, which side of the street were you looking to put the poles on for Adams?

MR. BRYNER: So, again, our corridor would allow for either side. Our preliminary engineering located it on the south side. Again, that's because for about half of that stretch on Adams you have parking lots on the south side.

CHMN STAFFORD: Right. Okay. And I recall that there's streetlights on that street as well. Would they have -- would they be collocated with the poles? Because I seem to see that you've had streetlights put on distribution poles. Or that there would be additional structures for the power line in addition to the streetlights, they have to work around those. Those remain where they are.

MR. BRYNER: That would be our typical practice is not to attach streetlights to our transmission lines to our transmission poles.

CHMN STAFFORD: Okay.

MR. BRYNER: So I would say we would work around them.

CHMN STAFFORD: Yeah, but it's my recollection of Adams is there's not a lot of room to work on the other side of that street.

MR. BRYNER: That's a good recollection.

CHMN STAFFORD: Okay. And so the other route is -- let's look at Route C.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Could we, as long as we're looking at A and B could we ask questions about A and B before we move on to another route?

CHMN STAFFORD: Yeah, sure. I'm just -- I have some concerns. I want to kind of ask questions about, I was going to work through different sections of the route. And if any member has a question that's relevant to that portion, just ask the chair and I'll let you ask your question. So Member Little, if you have a question about --

MEMBER LITTLE: I do, Mr. Chairman. Thank you.

CHMN STAFFORD: Please proceed.

MEMBER LITTLE: Was there any consideration placed to underground smaller sections of any of the routes, notably A is the one I'm thinking about, or perhaps B along Adams through neighborhoods? Just in short sections?

MR. BRYNER: So the problem with undergrounding -- sorry, Member Little. The problem with undergrounding any section of the line, short or long, is how do you pay for that cost differential.

So Proposition 412 just looked at areas that were required by the Gateway Corridor Zone that would need to be undergrounded.

So within the neighborhood themselves, that wasn't within a Gateway Corridor Zone, so it wasn't looked at under that circumstance. And we didn't

consider it in any other circumstance undergrounding, you know, even a short section.

MEMBER LITTLE: Okay. And what is the width of Vine compared to the width of Park? I understand Park has existing circuits on it, and Vine does not. But how about the road width? Do you have any idea?

MR. BRYNER: Give me a second, I can measure it. I know what we were requesting for a corridor was 120 on Park and 100 on Vine, but I would say the actual right-of-way width and I'm just totally guessing, if you want me to get a real number we can grab that in just a minute. But I would say Park is probably around 80 and Vine is probably around 60 or 70.

MEMBER LITTLE: Okay. I think those are my only questions right now on A and B. Thank you, Mr. Chairman.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Again to Mr. Bryner. Route A and Route B differ between Park and Adams. Route B goes south on Park. Route A goes south on, is that Adams or Vine?

CHMN STAFFORD: Vine. Adams is east-west.

MEMBER GOLD: Gotcha. That seems to be,

the length seems to be the same. The difference is that there are already power lines on Park but there are none on Vine; is that correct?

MR. BRYNER: That's correct.

MEMBER GOLD: Okay. Thank you.

MEMBER LITTLE: Mr. Chairman, one more question.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: How about the road width of Adams? I know that seemed really constrained.

MR. BRYNER: So let's see. We're working on some numbers. It's probably 60 or 70, it's similar to Vine. Those are residential streets. But I can get a real number for you in just a minute.

CHMN STAFFORD: Right, with the parking lots on the south side of Adams; right?

MR. BRYNER: Correct.

CHMN STAFFORD: Okay. All right. Let's, looking at --

MEMBER HILL: Mr. Bryner?

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I apologize. I have a question.

The length of overhead transmission in line A and line B, are they the same length?

MR. BRYNER: They're very similar. The one distinguishing factor is going to be that -- so Route B technically overshoots the substation a little bit coming south on Park, so then it has to cut back. So the difference is that overshoot and the coming back. So they're -- what are they on the place, 3 -- 3.2 and 3.5, so there's .3 miles difference.

MEMBER HILL: And between -- between alternative A and B, which one is less expensive?

MR. BRYNER: A is I would say substantially less expensive. And it's primarily due to not the construction of the transmission line. It's because of the existing overhead utilities and what we would do to relocate those underground.

MEMBER HILL: Okay. Thank you.

CHMN STAFFORD: Right. I guess that could be seen as a disadvantage to the neighborhood of going with A. In addition to adding poles to a street that currently doesn't have any, the 46kV would remain on Park.

So you'd have poles, I guess the new poles would be slightly bigger, but you'd have poles on both those residential streets as opposed to just one; correct?

MR. BRYNER: That is partially correct. We

will remove the 46kV as part of this project, but you would have distribution poles remaining on Park.

CHMN STAFFORD: Right. And the 46kV would be there for -- you said it would all be gone by 10 years, I believe.

MR. BRYNER: Within 10 years is when we expect all of our distribution work to be done. We would -- that would be one of the places where we'd be able to retire it quickest.

We're going to make the cut over from the U of A medical substation. Well, that'll be one of the first things that happens, and those 46kV lines source that substation.

CHMN STAFFORD: Okay. So that -- so it seems that there's -- so for that one it's kind of a -- it's one street benefits to the detriment of another street.

MR. BRYNER: I think that's fair.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Little.

MEMBER HILL: So perhaps the costs for the Route A and B are actually more comparable. Because you've put in costs on Park Avenue for retiring the 46kV and undergrounding the distribution, but you're probably going to retire the 46kV anyway?

MR. BRYNER: So the cost, we didn't actually include the costs to retire the 46kV on any of these.

MEMBER HILL: Okay. That's helpful. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: For Mr. Bryner or Mr. Jocham, you have 4kV, 14kV, 46kV, 131kV poles, some of which are distribution, some of which are transmission. What's the height of each of these poles?

MR. BRYNER: So we're talking 4kV, 14kV, 46kV, 138kV?

MEMBER GOLD: Yes. Did I leave anything out?

MR. BRYNER: We could throw a few more in there just for fun.

CHMN STAFFORD: Anything above 138 you left out. But we don't need to go there.

MR. BRYNER: It varies, but I'll just share a ballpark figure that I usually share with members of public.

So our older 4kV wooden poles are going to be between 30 and 35 feet tall.

Some of our newer 14kV poles are going to

be usually 35, 40 feet tall.

Our older 46kV poles are going to be between 45 and 55 feet tall.

Our newer 46kV poles are built to the same standard as our 138kV poles, and so they'll be identical. And they're, you know, typically in that 75 to 85-foot range. But they top out even higher if we've got to cross over something.

MEMBER GOLD: Okay. So basically if we're replacing 4kV with 14kV, would that be something you would consider doing?

MR. BRYNER: 4kV to 14kV?

MEMBER GOLD: Yeah.

MR. BRYNER: That is part of our project.

MEMBER GOLD: Gotcha.

MR. BRYNER: To upgrade the 4kV.

MEMBER GOLD: And then you would raise 46kV to 132kV?

MR. BRYNER: So, again we're saying that we're upgrading our 46kV, this portion of our 46kV system to 138kV.

MEMBER GOLD: 138. Okay.

MR. BRYNER: But it's not necessarily pole for pole or location for location. We have much more 46kV in this area than we will have 138 once we're able

to retire that.

MEMBER GOLD: So the only ones we're really losing are the 4kV poles which are the wood poles? Those are the ones you're trying to get rid of?

MR. BRYNER: So the 4kV and the 14kV -- let me -- Mr. Jocham is kind of correcting me a little bit here.

But where we're planning to underground distribution, that's 4kV or 14kV, whatever it is, it will go underground if it's, you know, on our route that we're proposing.

The remainder of the 4kV or -- and/or 14kV that we plan to upgrade, so it will all be 14kV, that would remain in whatever state it's in today. If it's underground, it will be underground. If it's overhead, it will be overhead.

MEMBER GOLD: So we're looking at a situation where existing poles on Broadway -- on Campbell are 46kV or 14kV?

MR. BRYNER: Mostly, I think in the area you're talking about north of Broadway probably, those are primarily 4kV. And for our purposes of your discussion I would just call them distribution poles. 4kV and 14kV are virtually the same.

CHMN STAFFORD: Those are the 35-foot ones,

35 to 40?

MR. BRYNER: Correct. If we replace a 4kV pole today it's going to be the 35 to 40-foot pole because that's just our standard.

MEMBER GOLD: Gotcha. So that means on Campbell just -- I'm jumping ahead, forgive me, Mr. Chairman, I'm jumping ahead to Campbell.

The poles, if we use that route, would go from 35 to 45-foot to 75 to 85-foot but they would be spaced wider apart.

MR. BRYNER: That's basically -- I only hesitate -- sorry -- because all our poles are different heights and on that stretch of Broadway, I believe the existing distribution poles are taller than that.

MEMBER GOLD: Well, how tall do you think they are, or Mr. Jocham, if you know?

MR. JOCHAM: It's a standard.

MR. BRYNER: Okay. Probably about 40-foot. So they're standard poles.

MEMBER GOLD: So they're 40 feet. And if you choose the Campbell route, they'd go to 75 or 80 feet.

MR. BRYNER: Correct.

MEMBER GOLD: But they would be spaced instead of every 200 feet they'd be spaced every

400 feet?

MR. BRYNER: Every probably 6 to 800 hundred feet.

MEMBER GOLD: 6 to 800 feet.

And how far apart from 14kV poles?

MR. BRYNER: Same as the 4kV, again it's the same --

MEMBER GOLD: No, compared to the 46.

MR. BRYNER: The 46 poles are primarily the same space as the 4kV and 14kV because they have those on the underbuild. So the spacing is really dictated by what the wire can support as well as, you know, we've got services and other things coming off of those. And so they're basically those 200ish-foot spans.

MEMBER GOLD: So the 14 is a 200ish?

MR. BRYNER: So 4kV, 14kV and 46kV I think you could say they're all the same spans.

MEMBER GOLD: So they're 200ish. What's the 600 to 800?

MR. BRYNER: Transmission. 138.

MEMBER GOLD: Ah, so that's 600 to 800.

So if you did Campbell Avenue north of Broadway, you would be moving -- you would be changing 14kV poles about 40 feet in height, 200 feet apart to 138kV poles. That's 80 feet in height, 600 to 800 feet

apart.

MR. BRYNER: Correct.

MEMBER GOLD: Thank you.

MS. GRABEL: Mr. Bryner, Member Gold might be interested in the data that we have about how many poles would be relocated or lost for every one that's constructed on a 138kV.

MR. BRYNER: Give me just a second.

CHMN STAFFORD: All right. If we could get Exhibit TEP-31 up on the left screen, please. The first slide, with all the segments on it -- there we go -- is looking at the cost comparison between routes A and B. We already covered that B is .3 miles longer because it goes down, it goes south of Adams, south of the Vine Substation to Adams, and comes back up.

You have -- there's no difference in cost because it doesn't -- between overhead as proposed and undergrounding, because of the Gateway Corridor, because the Gateway Corridor is not implicated.

However, you have a significantly different cost for the University Area Plan. Which section of the route under the University -- or potentially I guess under the University Area Plan because we haven't established whether that requires undergrounding.

MS. GRABEL: I think the asterisk is

important here, Chairman Stafford, and I'll let Mr. Bryner address that.

MR. BRYNER: So, yeah. So within the University Area Plan, I'm going to point up to the map on Slide 43, so we made the assumption, and I think in this case it's a good assumption, that along Grant Road, so the University Area Plan goes from Stone over to Country Club, Grant down to Broadway.

So we made the assumption that it would not apply along Grant in between Stone and Park, and again we have those existing poles there that we'd be able to reuse, so I think we're safe there.

But then we did assume from Park, Adams and into Vine for Route B that those would all be within the University Area Plan and under that scenario would require the underground.

CHMN STAFFORD: So along Park and Adams, then.

MR. BRYNER: Basically, yep.

CHMN STAFFORD: Okay. That's what I want to get. So those are the main -- the main -- that's where the potential implication for the University Area Plan is for Park and Adams.

And then what about Vine Road? Is that considered part -- that would also be considered part of

the University Area Plan? That's why the A route jumps up by approximately eight -- 12 million bucks?

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay. And then let's see. So now C, that comes down, again goes along Grant Road.

Now, is it the existing poles between that are west of Stone, along Grant? Or is that between Stone and Vine where the new poles are up on Grant that you'd use?

MR. BRYNER: The new poles are between Stone and Park.

CHMN STAFFORD: Okay. So then for that one, again, it's not in a Gateway Corridor, but the cost for that one increased significantly because I'm assuming in addition to Park Avenue you have to -- you'd have to put them underground on Park, Speedway and Stone Avenue?

MR. BRYNER: Let me just look at my data here really fast. So that was -- that was not for undergrounding on Stone. We assumed that Stone was outside of the University Area Plan.

CHMN STAFFORD: Okay.

MR. BRYNER: But we did -- we did assume that on Speedway, up Park, down Adams and into Vine was all in the University Area Plan.

CHMN STAFFORD: Okay. Now, Ring Road,

where does Ring begin and Elm begin, because I couldn't tell by looking at it exactly what was what.

MR. BRYNER: I'm not exact, but I call it at Campbell. It's Elm to the east. It's Ring Road to the west.

CHMN STAFFORD: Of Campbell?

MR. BRYNER: Of Campbell.

CHMN STAFFORD: Because I'd swear I saw a street sign that had a crossroad between Ring and Elm that was east of Campbell.

MR. BRYNER: East -- oh, well, so there is -- so east of Campbell when we were on Tucson -- actually no, we weren't -- we never drove there. So Elm does exist.

CHMN STAFFORD: West of Campbell, excuse me, no, it's --

MR. BRYNER: And Elm exists -- I'm talking over you.

CHMN STAFFORD: Because if you look -- if you look at the -- I'm looking at Slide 9 of Banner's Exhibit 2, if you look -- can you pull that up on the right real quick? I guess either one, I guess the left would be fine because we're not going to talk about numbers while we're looking at --

MR. BRYNER: I'd definitely defer to

Banner's knowledge of the roads around the hospital.

MS. DE BLASI: Mr. Chairman, I can answer that if you'd like me to.

CHMN STAFFORD: Great. If they can pull the slide up so we can point to it. I think it's Slide 9 of Banner 2.

MS. DE BLASI: Correct.

CHMN STAFFORD: It's the presentation.

MEMBER SOMERS: Mr. Chairman.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: Okay. I just wanted to make sure, I'm seeing a map and I'm hearing some whispering.

CHMN STAFFORD: Yeah, we're getting the slide queued up so we can talk about it.

MEMBER SOMERS: So, okay. I just wanted to make sure -- thank you, sir.

CHMN STAFFORD: Certainly. All right. Now, you see the where it says "Storm water detention," the red arrow that points to that area. That intersection to the left of that, I seem to recall there's a sign that says that's an intersection of Elm and Ring Road. So I'm --

MS. DE BLASI: Mr. Chairman, I can clarify if that helps.

CHMN STAFFORD: Yes.

MS. DE BLASI: I don't have the pointer so Mr. Bryner, if you can maybe ventriloquist for me.

So you see to the right, and Mr. Barkenbush testified to this during his direct, just sort of orienting the Committee. But to the right running along parallel to the picture is Campbell Road.

CHMN STAFFORD: Right.

MS. DE BLASI: And to the other side of that road my understanding is that is where the Elm alignment is. To the west, where the pointer is, where Mr. Bryner's pointer is right now, that is Ring Road because it's a Ring that goes around the campus. And it is a privately owned road by Banner.

CHMN STAFFORD: So where does Ring Road end and Elm begin?

MS. DE BLASI: I believe the Ring picks up right there to the west of Campbell, and I believe Elm is on the other side of Campbell to the east. And to the west of the medical center.

CHMN STAFFORD: So, okay. So there's actually no Elm to the east -- to the west of Campbell?

MS. DE BLASI: That's my understanding. And what you see on that photograph there is a private road called Ring Road that is on the Banner campus.

CHMN STAFFORD: Okay. All right. And now, so the City doesn't have any franchise or rights to occupy space along that road; correct, Mr. Bryner?

MR. BRYNER: That's correct.

CHMN STAFFORD: All right. I believe it was testified that if the line were to go on that route, then it would have to be condemned.

MR. BRYNER: I think that's the position of Banner, but I can let them speak for themselves.

CHMN STAFFORD: Right. That's what they said. I specifically recall that. Confirming that's your recollection as well.

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay. And so those costs are not reflected in the costs here for routes 1 or D; correct? Or Route 6.

MR. BRYNER: Are you asking if condemnation costs --

CHMN STAFFORD: I'm confirming that they're not, because my assumption is they are not. I'm just making sure that my understanding is correct.

MR. BRYNER: That's correct. And the same holds true throughout, we just placed in the fair market value to secure that right-of-way. No legal fees to go through condemnation.

CHMN STAFFORD: Right. Okay.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Was not the proposed route for D where it comes from -- from Campbell going west, not on Ring Road but on the city street to the north whose name I don't remember?

CHMN STAFFORD: Lester. That is Lester Street. That was -- you're kind of segueing to my next set of questions, Member Kryder.

MEMBER KRYDER: Okay. I'll stop, then. And you go ahead, Mr. Chairman.

CHMN STAFFORD: Thank you. Thank you.

So I recall that the original right-of-way, the corridor request was quite broad and it actually did include Lester to the north.

MR. BRYNER: Yes, that's correct.

CHMN STAFFORD: Okay. So for Route 1 or Route D, Lester would be a potential route; correct?

MR. BRYNER: So if Route 1 or D or 6 were on the table, then we would focus our 100-foot-wide corridor width that we'd request on Lester as opposed to Ring based on the testimony we've heard.

CHMN STAFFORD: I seem to recall that between Lester and somewhere west of Campbell, and there

is -- there's like a retention area there. It's not the -- it's not that storm water detention area. It's north of that. It doesn't look like it's reflected in this picture. Because I can't even see Lester Street here.

MR. BRYNER: It's in this area right here. And Lester Street is just north of it.

CHMN STAFFORD: Right. Right. Let's go back, let's get rid of the -- I think we don't need the aerial map of the Banner Health anymore. Let's go back to the other map.

So Lester is just above that, and that's a residential street and that's -- my recollection it's pretty narrow.

MR. BRYNER: That's correct. It would be a similar width to the other residential streets in the area.

CHMN STAFFORD: Now, the corridor I think you originally proposed was broad enough to -- there's that space area between Campbell, and then it goes, I forget how many hundred yards, maybe. And then you have another -- then you have houses and then you have a -- and in between Ring and Lester there's another Park area, it's a water retention place that has a path going through it.

Is -- are those potential sites for a line as well? I mean, there's -- there's kind of two areas, there's an area to the west, another one to the east. I think it's a house somewhere in the middle. Is there -- are those potential sites for the poles for the line?

MR. BRYNER: So as, again, as the utility, not the property owner, our thoughts were asking for that corridor between Lester and Ring, so that we could place them, again, on either road or potentially in that green space. I believe Banner calls it the North Green.

Through that area, because you're only going to have a couple of poles between that area and the substation, and so you could -- you could put those poles, you know, either in some -- the retention basin isn't continuous throughout there. There are some upland areas, placing those poles on those areas.

CHMN STAFFORD: But you've have to eventually put some on Lester Street or Avenue, whatever it is, Lester, to get all the way up to Vine.

MR. BRYNER: So eventually you'd have to go to work your way down to Ring because the entryway into Vine would be on the Ring Road alignment as opposed to the Lester Road -- Lester Street alignment. But you could locate on either one of them and cut over.

CHMN STAFFORD: Okay. And then, again, any

location on Ring Road is going to have additional costs.

MR. BRYNER: Correct.

CHMN STAFFORD: Not reflected in the estimates in Exhibit TEP-31.

MEMBER KRYDER: Specifically what -- Mr. Chairman, what extras are you talking about?

CHMN STAFFORD: Condemnation. Because if any of the routes that would have to traverse Ring Road, that Banner Health has indicated that it is -- would not cooperate with putting the line there, the utility would be forced to seek condemnation to put -- to locate the line there which would result in additional costs and delays.

MEMBER KRYDER: Okay.

CHMN STAFFORD: And those costs are not reflected on slide -- I guess it's the first slide -- or the -- yeah, second slide. The second slide of TEP-31. And these are the numbers that include -- this is the apples-to-apples comparison, Slide 31, that has the costs of what you proposed including the undergrounding of the relevant distribution systems with the placement of the transmission line. Correct?

MR. BRYNER: Yes.

CHMN STAFFORD: Okay.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Do we have any KOPs that show that particular area? I was looking through what I have and you guys know the KOPs better than I do, along Ring or Lester?

MR. BRYNER: Yes, we've got two. Let me tell you what those numbers are.

MS. DE BLASI: Mr. Chair.

CHMN STAFFORD: Yes, Ms. De Blasi.

MS. DE BLASI: Can I just add also a suggestion, there's a -- we didn't use it because we were trying to limit the number of things that TEP had to put up on the screen, but there is a shot that TEP includes -- it's -- I believe, Mr. Bryner, it's a page before your KOP number 29 that shows the actual viewshed from an overhead of the KOP 29. I think it's like a page before that in the application. I think it was 757.

MR. BRYNER: Showing the location of the key observation point.

MS. DE BLASI: Exactly. That might be helpful to the Committee if you're asking about that, Member Little.

MEMBER LITTLE: Thank you.

MR. BRYNER: And we do have three KOPs in that vicinity, 27, 28, and 29. And they also have

that -- roughly that same index map. If anybody wanted to see them, we could pull them up on the screen.

MEMBER KRYDER: Yes, would you, please?

MR. BRYNER: I think 28's probably the -- hold on. Let me look at it before I say something I shouldn't.

MEMBER LITTLE: As an aside, you guys should see my office. I've got stuff spread out all over the place.

MS. HILL: Member Little, you should see ours.

MEMBER HILL: And the Chairman's, he's got three seats behind him with binders posted on them, so.

MR. BRYNER: Grace, could we go to page 753 of the application. And if you could make the bottom part of the page as large as you can.

So this is going to be a key observation point 28, which is looking across the North Green between Ring Roads -- Ring and Lester.

CHMN STAFFORD: So Lester is to the right in this picture?

MR. BRYNER: Yes, that's correct.

CHMN STAFFORD: And this looks like this line is a line off of -- looks it's between Ring and -- it sits between Ring and Lester. Is that --

MR. BRYNER: So we actually put the line in the simulation within the road right-of-way of Lester, so it's fully on that road.

CHMN STAFFORD: Okay. And then what you're probably seeing in the -- at the pole -- let's see if -- maybe this doesn't work on PDFs.

The farthest left pole you're seeing, that's sort of that cut over from Lester down to Ring so that we can drop into the substation. Okay.

MEMBER KRYDER: And would there be land that needed to be condemned or right-of-way that needed to be condemned there, Clark?

MR. BRYNER: I can't speak for Banner, but I think that's past the area of their concern.

MEMBER KRYDER: Okay. I was trying to address the comment that the Chairman made a moment ago of additional potential cost here, using alternative D coming down Lester Road off Campbell, and then swinging down through, I believe this is called north retaining pool or whatever that's called.

Is there going to be, using this potential path, land that TEP would have to condemn or would have to get agreement with Banner?

MR. BRYNER: We would certainly need to get agreement with Banner.

As to the question of condemnation, I don't know. We could even face that -- we could face that on any route where we need to get private easement.

MEMBER KRYDER: Okay. Thank you.

CHMN STAFFORD: All right. Are we done looking at the KOPs?

MEMBER LITTLE: Yes. Thank you.

CHMN STAFFORD: Okay. Wasn't there -- was there an aerial shot that I believe Ms. De Blasi mentioned?

MR. BRYNER: Can you go to the page before, Grace. If you can zoom in on the -- maybe it's the -- if you can zoom in on that lower map. I don't know if Ms. De Blasi wanted to explain something here.

MS. DE BLASI: I was going to say there's an additional one that's from 29. I don't know, Mr. Bryner, if you're planning to go through all three, but it might be helpful to the Committee.

MR. BRYNER: If you all would like -- I think actually Member Kryder had wanted to ask a question about 29.

MEMBER KRYDER: Yes. That is correct. Could we get to that one, please?

MR. BRYNER: Grace, can you go to -- I think it is going to be page 757 for our weathering steel

simulation.

MS. DE BLASI: And, Chairman, if I might just for a point of clarification since it's being asked, Banner's testimony was that any siting along Ring Road on the private property would go through a condemnation, because any of these routes impacting that north viewshed would have a significant impact, and so we would -- we would be forced into that condemnation regardless of where it was. And that's litigation.

CHMN STAFFORD: Okay. Fair enough.

MEMBER KRYDER: Thank you very much, Mr. Chairman. Speaking of the screen in front of us there, I think we all saw this and the testimony that Ms. De Blasi gave a couple of days ago of the pole standing right in view of the cafeteria and some of the high-volume windows in the Banner building.

And my question was to you, Clark, would it be possible in this simulation to imagine that pole moved to the right, and it runs left to right, moved clear to the right of that picture, and then an additional pole perhaps put clear to the left of the picture, so that essentially what this view would give us would be pictures of wires rather than of poles.

Do I make myself clear as to the question?

MR. BRYNER: Yes, Member Kryder. I

understand your question. And the simple answer is yes, we can move the poles one way or the other. But the more complex question is then that's going to change the view and perspective from somewhere else, so if you have a very specific view you're trying somebody, somebodies, is trying to protect, then we can move the poles around to ensure that view is protected.

But one way or another there will be a view that is changed.

MEMBER KRYDER: Could you tell me approximate distance from that pole as simulated there over to Campbell? Is this -- I understood the poles were going to be somewhere in the six to 800 feet. Did I have that right?

MR. BRYNER: That's correct.

MEMBER KRYDER: Okay. So if we went to the right from that pole that's there six to 800 feet, would that take us out to Campbell?

MR. BRYNER: Just making a rough guess, but I would say probably. It looks -- it looks like it might be a little shorter span there, and I'm not sure what's going into that.

MEMBER KRYDER: Okay. So if it could be moved over close to -- I'm not sure -- adjacent to Campbell and come across Lester, and then as you said

somebody's view gets to see a pole.

But if this is the view, it's a magnificent one of the mountains there, from the second, third or fourth floor of the Banner facility, this came off of the parking lot as I recall the testimony, but from the facility, what -- nobody is going to be on the parking lot and get cranky about this, I hope. It would be more the people on the second, third and fourth floor of the facility.

What would that look like? Do we have any idea? Would they still be seeing -- perhaps, Ms. De Blasi, you can help me with this.

MS. DE BLASI: Mr. Chair, if we might see applicant page 756, I think that will help Member Kryder's question. Because that's -- yeah. So that's showing -- well, I'll let Mr. Bryner explain what it's showing.

MEMBER KRYDER: Looking at this, then, if that pole on the right-hand vector from the observation point was moved clear to the right on Campbell virtually, and I don't know what 600 feet from there would be, but does that clear out the view of the poles from the second, third, or fourth floor of the Banner facility? Or does it not?

MR. BRYNER: I think we would have a hard

time avoiding any pole being in that viewscape. We could move things a bit, but I think we would have a hard time removing anything.

MEMBER KRYDER: Okay. Thank you. That's -- so the short version is you can move it one way, you can move it the other way, but somebody gets to look at it.

MR. BRYNER: I think that's about it.

MEMBER KRYDER: Okay. Thank you very much.

CHMN STAFFORD: We can go back to the map on the left screen.

And Mr. Bryner, looking back at TEP-31, it says, "Assumes the City of Tucson will grant special exception for building overhead and crossing a Gateway Corridor that overlaps with the University Area Plan."

So for that one if you're looking at -- there's no -- for routes A, B, and C, they don't -- they don't cross -- they don't run along a Gateway Corridor; correct?

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay. All right.

MEMBER RICHINS: Chairman?

CHMN STAFFORD: Hang on a second.

But then the next column over it says, Total cost to undergrounding Gateway Corridor in

University Area Plan. That's the marginal cost there between, say, looking, for example, A, the 7603817 compared to the 19826068. That cost difference is the undergrounding costs related to the University Area Plan alone; correct?

MR. BRYNER: That's correct.

CHMN STAFFORD: Because that number assumes that you -- is it the same thing as in the prior column that you're getting a special exception for any Gateway Corridor crossing; right?

MR. BRYNER: Correct.

CHMN STAFFORD: They don't have a Gateway Corridor crossing.

MR. BRYNER: A, B and C do all have a Gateway Corridor crossing at Oracle.

CHMN STAFFORD: Oracle. Okay. And where's Oracle?

MR. BRYNER: It's --

CHMN STAFFORD: Can you pull up the map that has the Gateway Corridors on it? I think that would be the most helpful.

MEMBER RICHINS: Chairman, I just wanted to confirm that the A and 4 in the last column, and the 1 are correlated with each other, because it says, the footnote is 1, assumes the City of Tucson. The only

other place I see a footnote is the A next to the 52 million number. Is that supposed to be referring to each other?

MR. BRYNER: So, yes. So the one area as we're having the conversation earlier, the real concern that we have on our perpendicular crossings is on the preferred route on Euclid where it crosses Broadway. Which Broadway is a Gateway Corridor and so that's assuming that we would be granted that special exception.

MEMBER RICHINS: No, that's fine. I just wanted to have footnote correlation, the A and the 1 were referring to the same thing in that spreadsheet, because I don't see an A as a footnote and I don't see a 1 as a notation.

MR. BRYNER: Member Richins, if you go to the prior sheet it actually has it correct. I think on this sheet it's a typo.

MEMBER RICHINS: Okay. I just need, I just want to make sure we're all on the same --

MR. JOCHAM: Confirmed.

CHMN STAFFORD: If you look at the prior page, it has the A there, but on this page it has 1 for some reason.

MR. BRYNER: Initially I used a 1, and then I was like, that 1 doesn't really fit in well with the

number, I should use an alphabetical denoter, so thanks for pointing that out.

CHMN STAFFORD: Okay. All right. There you go. So we're at the Gateway Corridor Zones now.

So it looks like the big cost driver, because you're assuming that you'll be able to get the special exception to cross the Gateway Corridor, but the big cost driver for the undergrounding is the University Area Plan; correct?

MR. BRYNER: Sorry. Which route are we talking about right now?

CHMN STAFFORD: A, B and C.

MR. BRYNER: Yes.

CHMN STAFFORD: Because you're assuming you'll get the special exception. That's what the footnote tells us for all those routes; correct?

MR. BRYNER: Correct.

MS. GRABEL: Well, Mr. Bryner, if I may step in, Mr. Chairman, this is where that's not necessarily true, because of the finding of fact that I mentioned earlier that would need to be made, and that's -- is this for B?

MR. BRYNER: A, B and C.

MS. GRABEL: Okay. Sorry. I'll step in -- that's actually for 4 that I'm talking about, so

continue, Mr. Bryner.

CHMN STAFFORD: You almost got me confused.

MS. GRABEL: Sorry about that. Yeah.

CHMN STAFFORD: Right. So I'm just -- one of the things that I'm looking at too, I think, let me see, which D is -- now, D you also have -- you have additional cost for the Gateway Corridor because it would run parallel to Campbell Road.

MR. BRYNER: Yes, that is correct.

CHMN STAFFORD: Okay. So that's why that -- but it has, I guess it's implicated less by the University Area Plan.

MR. BRYNER: So it's -- I'd say it's about the same. It's about a half a mile that's Gateway and University Area Plan, and about a half a mile that's just University Area Plan.

CHMN STAFFORD: Okay. Because I'm looking at the numbers, the biggest cost difference I'm looking is between, you know, if they have to underground due to the University Area Plan is between C and D. It's a significant -- well, I guess it's between A and C.

MR. BRYNER: Correct. So it's less than A, B and C due to just the University Area Plan. Those ones travel a greater distance.

CHMN STAFFORD: Okay. And C because it's

got the -- because you've got -- wait. Right. Because C has got, because Stone -- no, Stone wouldn't be -- but it would be, because you have Speedway, Adams, and Park for C. Correct? That's why it's got the most cost.

MR. BRYNER: Correct, yeah. We have, for C it has 1.8 miles that would be underground, whereas D has .8 miles. And that's assuming University Area Plan and gateway.

CHMN STAFFORD: Okay. And then so -- and then turning our attention now to I think it's Route 2.

MEMBER HILL: Mr. Chair, before we leave the numbered routes.

CHMN STAFFORD: The lettered routes?

MEMBER HILL: Or the lettered routes. Before we go to the numbered routes, that's what I meant to say.

So in terms of routes A through D, A and B are the most direct and least expensive routes; is that correct?

MR. BRYNER: Correct.

MEMBER HILL: Thank you.

CHMN STAFFORD: Unless you have to underground pursuant to the University Area Plan.

MR. BRYNER: Hold on. Yeah. Sorry. I'm looking at the numbers. B is the second most expensive.

A and D are the least expensive.

CHMN STAFFORD: If you have to underground due to the University Area Plan. Without, if you get -- if, say, the Committee gives you the finding that the University Area Plan is unduly restrictive, and then -- and I guess they could do the same thing for the Gateway Corridor for you get the special exception for it, A is the cheapest route and then B is the second cheapest. Or not, A --

MR. BRYNER: B would be the cheapest.

CHMN STAFFORD: D is -- okay. And then D is, okay. Yes, but then D has a problem because you have to go to the -- you'd have to have the Gateway Corridor also because that one travels along Campbell and you have to go down Ring Road, so D has its own challenges.

MR. BRYNER: Sure, and their possible condemnation, or likely.

CHMN STAFFORD: All right. Does any other members have questions about the lettered section?

Member Little?

MEMBER LITTLE: I don't believe so.

CHMN STAFFORD: Member Somers?

(No response.)

CHMN STAFFORD: All right. Looking at the numbered routes. 5 and 6, they have the challenge of

having to get permissions from the railroad to run parallel to the tracks; is that correct? Is my recollection of that accurate?

MR. BRYNER: Sorry, Chairman. Could you repeat yourself?

CHMN STAFFORD: Routes 5 and 6, they present the unique challenge of having to get special permissions from the railroad because of the proximity they run parallel to the tracks. Is my recollection correct?

MR. BRYNER: Yes, you're correct.

CHMN STAFFORD: Okay. And I seem to recall that they kind of ghosted you. You've been calling and leaving messages and haven't got a response. Is that also accurate?

MR. BRYNER: I don't know if they've said ghosted. They said it's going to take a couple years once you submit your application to get a response from us.

CHMN STAFFORD: Okay. Well, couple years. I mean, I guess some people consider that ghosting, but I guess if you actually ever respond it's technically not.

Two years to wait for a response from the railroad. If you submitted the request today would that allow you to complete the line and energize it in '27

which you anticipate needing to have it energized?

MR. BRYNER: So we would have to take on the risk to do all the engineering, procure the poles, so that we could hope we would be granted it as we had designed it and everything. So then we could then build them once they granted that. So there would be substantial risk and no guarantee.

CHMN STAFFORD: Right. And I guess you wouldn't begin construction at any part of 5 or 6 until you got that permission. Otherwise you could be really wasting money and time then; correct?

MR. BRYNER: I don't see why we would, no. Or yes.

CHMN STAFFORD: But, however, you could say you could begin construction on the lettered portion because that's going to be -- that would be, I guess it depends which one it is, would be independent of what the numbered section would be; correct?

MR. BRYNER: Yes, that's correct.

CHMN STAFFORD: Okay. All right.

MS. GRABEL: And Mr. Chairman, if I may jump in. Mr. Bryner, isn't it the case we're asking the Committee if they do choose 5 or 6 to also grant an alternative, just in case?

MR. BRYNER: That's correct. We don't want

to have to come back here and ask you for a different route.

CHMN STAFFORD: Right. That whole approach seems problematic, and so the members can make their own decision, but for me, I think routes 5 and 6 are out of consideration, really, just for that fact.

I mean, if we're going to -- I think you'll want to pick the route that has the highest chance of success is the primary one, and an alternate one to address some specific issue with the first one.

But, yeah, I think I'm inclined to not consider 5 or 6.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I concur with your analysis.

CHMN STAFFORD: All right. And then so it's back to the numbered ones.

We have number 1, which is the most direct route. But it also has additional costs imposed by undergrounding for both the Gateway Corridor because it runs along Campbell, and for the University Area Plan. Correct?

MR. BRYNER: Correct.

CHMN STAFFORD: But absent those

requirements, is the cheapest alternative; correct?

MR. BRYNER: Correct.

CHMN STAFFORD: All right. Now looking at Route 2. Where it exits the Vine Substation, it seems to present a better route because it wouldn't have to deal with Ring Road or the hospital.

But I'm assuming that it's the gateway area plan that would require that to be undergrounded for that stretch between Vine Substation and Speedway.

MR. BRYNER: The University Area Plan.

CHMN STAFFORD: What did I say?

MR. BRYNER: Gateway.

CHMN STAFFORD: Oh, yeah, yeah. The Gateway Corridor Zone. It's the University Area Plan.

All right. I seem to recall there's existing distribution poles in that section.

MR. BRYNER: There are existing distribution poles for a section just south of the Vine Substation.

CHMN STAFFORD: Are there any other physical constraints that would prohibit using aboveground transmission lines along that section of Route 2 other than the University Area Plan?

For example, I know we talked about how APS has a significant amount of lines undergrounded downtown,

because there's no place to put an aboveground line because of the height of the buildings and the length of setback from the street, so they're undergrounded.

Are those physical requirements present for that section of line 2? Or is the driving force for undergrounding the University Area Plan?

MR. BRYNER: The driving force is the University Area Plan.

CHMN STAFFORD: So there's no physical reason why they could not be placed aboveground?

MR. BRYNER: Based on the buildings that exist today, there is no problem. I'm not sure what the university's future plans are in that area.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I just have a comment. I think that route -- it's related to Route 1 and 2. Route 1 is definitely the most direct, but based on the superior court finding, I think there's more concern that that would require undergrounding along Campbell.

I do think that if we're considering Route 1 that it would be also perhaps prudent to consider adding in the first portion of Route 2 to reduce the frontage on Campbell, is just what I want to suggest.

I'm suggesting kind of a hybrid of Route 1

and 2 as a possible corridor for consideration. Because we might have more flexibility with the University Area Plan.

And it also feels more direct than going back through some of the neighborhoods. So I like trying to stick to kind of more commercial corridors. So I just want to offer that as an opinion.

CHMN STAFFORD: Thank you. And then --

MS. GRABEL: Chairman Stafford. Member Hill, can you clarify what exactly you mean would be the hybrid portion?

MR. BRYNER: I can trace it. I'm following you. Yeah. So we'd go from Kino, follow Route 1 all the way down Campbell. Instead of following past Speedway, we'd turn on Speedway and go up Cherry, Mabel, and then Vine into the Vine Substation.

MEMBER HILL: I like avoiding Banner. I like reducing frontage on Campbell. But it still feels more direct than going back through the neighborhoods in that area.

CHMN STAFFORD: And it wouldn't have -- you wouldn't have -- and assuming you wouldn't have a collocated 138kV to Vine Substation.

MEMBER HILL: On residential neighborhood roads.

CHMN STAFFORD: Residential neighborhoods. Or down the middle of Ring Road either.

MR. BRYNER: That's correct.

CHMN STAFFORD: Okay.

MEMBER HILL: It's Cherry Avenue, what -- my colleague just asked what street it is. It's Cherry Avenue; correct?

MR. BRYNER: Cherry is where we would turn. I lost my pointer. Cherry is where we would turn north off of Speedway.

CHMN STAFFORD: Then you take Mabel over to Vine.

MR. BRYNER: Correct. Mabel. For just like a couple hundred feet, yeah.

CHMN STAFFORD: Right. All right. Thank you.

And then, let's see -- yeah, and then Campbell, that's where the distribution lines that are already on Campbell, that's between Broadway and Speedway; correct?

MR. BRYNER: Correct.

CHMN STAFFORD: All right. But they're not north of Speedway.

MR. BRYNER: There are some north of Speedway, but for the most part the entire stretch

between Speedway and Broadway has lines.

CHMN STAFFORD: I remember seeing at least a dozen of them, I think. So. All right.

I haven't had a chance to look at the amended CEC. But I'm going to assume that both the Gateway Corridor and the University Area Plan are the primary regulations, ordinances that you would be asking for the Committee to find that they are unduly burdensome.

MS. GRABEL: As well as depending on Mr. Lusk's findings with respect to historic overlay zone if the City takes a position that also requires undergrounding, we'd want a finding to be applied there as well.

CHMN STAFFORD: Okay. Because it's in the application, I have it behind me here. But there's a number, I think there's at least four or five different potential neighborhood plans that could be implicated for requiring undergrounding.

MS. GRABEL: I think the Sam Hughes Neighborhood Plan is the one that's most at issue with the routes that we have here.

Mr. Bryner can clarify that for me. And if there's a specific historic overlay zone, I suppose Mr. Bryner can clarify that as well.

CHMN STAFFORD: Before you do, Mr. Bryner, the Sam Hughes neighborhood is east of Campbell; correct?

MR. BRYNER: Correct.

CHMN STAFFORD: So if we don't take Route 2 which goes east of Campbell and down to Tucson, would you even implicate the Sam Hughes neighborhood at all?

MR. BRYNER: We would not.

MS. GRABEL: That's why we didn't ask for a finding for that neighborhood.

CHMN STAFFORD: Okay. Because I think, frankly, Route 2 with going way out of the way over to Tucson and back up just to avoid that stretch of Campbell, I mean, that seems -- seems kind of wasteful to me.

So other than that chunk of line 2 from the Vine Substation to Speedway, I'm inclined to not consider the rest of Route 2 either.

Just letting the members know where I'm coming from.

All right. And then, now, the preferred route. The Gateway Corridor Zone is the biggest, you have to deal with that crossing Broadway. That's the only implication for the Gateway Corridor Zone. Oh, yes, and Kino Parkway into the Kino Substation. There's two crossing of Gateway Corridors; correct?

MR. BRYNER: Correct.

CHMN STAFFORD: Okay. And so let me look at the numbers here. That's right. You assume that they would be able to get those granted, but then the big implication is the, wow, really, an extra $40 million. And that is for undergrounding all along Euclid; correct?

MR. BRYNER: Yeah, all along Euclid, Speedway, Park, Adams, and Vine.

CHMN STAFFORD: Okay. Due to the University Area Plan.

MR. BRYNER: Correct.

CHMN STAFFORD: Okay.

MEMBER RICHINS: Chairman, confirming that that Route 1 idea that my colleague just advanced does not have a railroad negotiation issue associated with it.

MR. BRYNER: No railroad negotiation on that.

MEMBER RICHINS: Thank you.

CHMN STAFFORD: That's just 5 and 6. And 6 is the one that goes -- that's got a whole lot of extra length in it, too, to get to -- get to Vine. So that one seems overly long. Yeah, seven -- six miles.

Okay. I think my questions are all pretty much based on the assumption of the accuracy in the numbers provided in TEP-31.

Member Richins, you had expressed doubts as to the actual cost figures. Now is the time to grill the panel to find out, to drill down on the numbers to see if you -- what your perception of their accuracy is.

MEMBER RICHINS: Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Oh, one second. Member Little.

MEMBER LITTLE: Yes, before you go on, I did not hear you address Route 3. Did I just miss it?

CHMN STAFFORD: Yeah, I think so. I didn't -- Route 3. Which one is -- let's see. Yeah, that -- I didn't really have any questions about Route 3. You're more than welcome to ask it if you have them.

MEMBER LITTLE: No.

MR. BRYNER: And Chairman Stafford, one other question that Member Little asked before was about right-of-way, where -- road right-of-way widths, and I actually do have those, so I can give the real numbers.

So Park is variable between 58-foot on the low end to 85-foot on the high end.

Adams, also variable between 52-foot on the lower end, 55-foot on the high end.

And Vine, variable too. 57-foot on the low end, 60-foot on the high end. So those are the -- the

real numbers so you can strike my old numbers.

MEMBER LITTLE: Thank you.

MEMBER HILL: Mr. Bryner, so Vine actually has a wider right-of-way than Adams Street. It doesn't feel like that when you're on those streets, but Vine has more right-of-way?

MR. BRYNER: That's correct. I know some roads can be deceiving because you don't know how much of the setback is due to the road and how much is just setback.

MEMBER HILL: Okay.

CHMN STAFFORD: Okay. All right. Any other questions? Member Richins, did you want to start your line of questioning on the costs, the undergrounding costs?

MEMBER RICHINS: No, I just needed to reconcile some of the numbers that Underground Arizona presented in testimony, and then some of the -- because they were in dispute with each other.

CHMN STAFFORD: Right.

MEMBER RICHINS: And it didn't feel like it ever got fully settled. I mean, I know that outside counsel, you worked to discredit his credibility on any of those issue.

He presented some compelling studies and

papers that are very interesting and then some other calculated numbers given his experience as a business analyst.

I thought his -- his relevant experience was fairly credible and so it just seemed like there was a huge disparity. It wasn't a small, it was like two or three, four times versus 14 to 22. And so could we get closer? You know, is there something that really, you know --

MS. GRABEL: And Chairman Stafford, Member Richins, one thing that I talked about with doing with this panel, and I don't know if you want to do it now or after lunch, is kind of ignoring the multipliers, because I agree that that kind of does muddy the waters.

And just sticking to hard figures that demonstrate why it costs more to underground transmission versus distribution. And then allowing Mr. Bryner to talk about the length of the -- basically the cost figures in Exhibit 31.

CHMN STAFFORD: That's why I focused on 31, because the percentage is -- I didn't consider that to be really meaningful to my analysis. I was looking at bottom line, out-of-pocket expense to get the project installed. And that's what -- that's the number that's going to end up going into the rate base for the -- for

the cost of construction new or that's going to get added to the rates at some point.

MEMBER RICHINS: Chairman --

CHMN STAFFORD: Once you get -- did you guys get a -- one of those adjusters that let you put projects in before, outside of a rate case, or do you still have to do the -- not yet?

MS. HILL: Not for TEP. We have one for generation projects for UNS Electric, but we are -- we do not have one for TEP.

CHMN STAFFORD: I don't think anyone has one for transmission projects yet, do they? It's all generation, or is APS' more nebulous?

MS. HILL: I'm not sure what APS' encompasses. I think it's just generation, but I don't know.

CHMN STAFFORD: So transmission has to get rate based the hard way, then.

MEMBER RICHINS: So is that -- Chairman, is that then done at the conclusion of the project with actual costs, or is that done with -- okay. Thank you. Thanks for confirming that.

MS. HILL: It has to be used and useful.

MEMBER KRYDER: Into your microphone a little more.

MS. HILL: Oh, I'm sorry. It has to be used and useful before we can put it into rate base. And there are sometimes some arguments if it actually goes into service outside of the test year, there are sometimes some arguments from intervenors about whether we can go ahead and put it into rate base, even though it's outside of the test year, which means we have to wait another three years or two years to put it -- I mean, it's a complicated process, but it has to be in service and actual cost before we can rate base it.

MEMBER RICHINS: Understood.

CHMN STAFFORD: They'll let -- typically I think they've been doing 12 months, sometimes I think six months, but typically it's 12 months of post test year plant they'll allow into rate base, as long as it's in use by the time the rate case is done.

MS. GRABEL: And deemed prudent.

CHMN STAFFORD: Right. I remember it came up with your -- with your RICE units in a couple rate cases ago, that the first batch had been constructed and the second one still wasn't done, and they -- I think this is right when COVID happened, and they had to have Staff, they continued the hearing for several months until Staff could go out and confirm that all ten units were up and functional. And they were allowed a post

test year plant into rate base.

MEMBER RICHINS: Chairman, Ms. Grabel. I think we can narrow that discussion a little bit. I don't think there's any dispute that undergrounding costs more, so I don't think we need to do anything to establish an increased cost.

I think it would be helpful to, if probably after we've had a discussion on which line, look at the costs of your estimate and then maybe go to Mr. Dempsey and see, he had some -- some numbers he was throwing out there and so we can compare those, that route, so I don't think we need to belabor whether or not it costs more. I think that's well established. Let's just go right to what's your number, what's your number, and see what we could do to reconcile those.

Obviously, TEP has vastly more experience in estimating these costs, although it's been stated in testimony by Mr. Robinson that TEP has not ever undergrounded the 138kV lines. So that's part of the problem here is that I'm getting estimates and you have a company, and I mean, I know you have a reliable consultant, but you've never done it before, so it's like we're really kind of shooting in the dark here.

MS. GRABEL: Certainly. So TEP has never done it, but Sargent & Lundy certainly has. And Sargent

& Lundy is the entity that was providing cost estimates with real vendor quotes.

MEMBER RICHINS: Understood.

MS. GRABEL: Okay.

CHMN STAFFORD: And I seem to recall that Sargent & Lundy had actual engineering and project supervision experience for undergrounding high-voltage transmission, even though they're not the construction company, they do oversee the engineering and the procurement of materials or something like that.

MR. JOCHAM: Correct.

CHMN STAFFORD: Okay. Just making sure my recollection's okay. This seems like a great conversation to have after lunch.

MR. DEMPSEY: May I make a quick comment?

CHMN STAFFORD: Oh, yes, sure, Mr. Dempsey.

MR. DEMPSEY: So that's actually why I used actual cost from actual projects.

MR. LUSK: Mr. Chair, just briefly, and I don't know if it would be helpful for Member Richins, would the -- once we get to a line would it be helpful to sort of disentangle the undergrounding for the Gateway Corridor versus the University Area Plan?

CHMN STAFFORD: It may, but I think the Exhibit 31 that I'm looking at doesn't -- it assumes

additional -- zero marginal cost for the Gateway Corridor for most of the routes except -- obviously except for D because it would run parallel, but the ones that just merely cross it, it assumes that they'll get a special exception.

MS. GRABEL: With the exception, Mr. Chairman, of Route 4, because there is that finding of fact that has to be paid that the crossing complies with all area plans, which is why the fourth -- fifth column bringing in the cost of the University Area Plan might be sucked into the cost of the Gateway Corridor.

CHMN STAFFORD: Okay. Because I'm confused because 4, the total cost of overhead as proposed is the same number as the total cost underground in Gateway Corridor.

MS. GRABEL: And then you see the asterisk, and it says, "Assumes City of Tucson will grant special exception for building overhead when crossing a Gateway Corridor that overlaps with the University Area Plan."

If it doesn't, because a finding of fact needs to be made on that crossing down Euclid, which overlaps with the University Area Plan, if the fact finder determines that the crossing doesn't comply with the University Area Plan because it's not undergrounded, that could bring in the University Area Plan to the

entirety of the route. That's our concern and why we're asking for a finding to be made.

CHMN STAFFORD: Okay.

MR. LUSK: So, and in response that, Chairman, that might be the spot where it might be helpful to talk about what the additional undergrounding cost is for if the special exception wasn't granted.

CHMN STAFFORD: Okay. Excellent. Well, that sounds like where we should take up after the lunch break. It has been going for almost 90 minutes, and it's 12:25. I know I'm getting hungry, I'm sure everyone else is, so let's take our lunch break and come back around 1:30. We stand in recess.

(Recess from 12:25 p.m. to 1:33 p.m.)

CHMN STAFFORD: All right. Let's go back on the record.

I believe the applicant's witness has the answers to Member Mercer's questions about the differences in what it takes to underground distribution compared to transmission.

MS. HILL: Yes. Thank you, Chairman Stafford, Member Mercer.

So I've asked Mr. Lindsey to describe that for you. And, of course, feel free to just break in during his presentation and ask him additional things.

But so I'll just start with a basic question and then try to move it along as quickly as we can. And let us know when you've had it.

MEMBER MERCER: I just want to understand the difference between the two.

MS. HILL: All right. So, Mr. Lindsey, then, knowing that, could you first describe the basic size differences between what is required for a trench or an opening for distribution versus transmission.

MR. LINDSEY: Sure. So starting with distribution, our standard trench for a distribution line is one foot wide. So pretty skinny from that perspective. And bottom of trench we say or the depth of that would be four feet. So the conduit would be placed above that four foot. So we're talking one foot wide, four feet deep.

And I kind of want to stand up and do this, but, you know, stepping away from the microphone. So that's a distribution trench. So typically that's what we're looking at installing for this project and standard for within the system, within the field that we -- that we toured.

MS. HILL: And, Mr. Lindsey, let me just break in for a second. I have two questions.

So, number one, just to clarify, the

distribution doesn't require PVC pipe or anything the way the transmission does; correct?

MR. LINDSEY: Ms. Hill, it does. So for distribution circuits, we -- our standard is a six-inch conduit. But in the field we're not typically looking at any special backfill or concrete within that trench. So from a construction time frame it's a pretty quick thing to do. It's a small trench to dig, not a lot of special backfill.

So as Mr. Jocham has spoken about, when you start to compare that to transmission, there's a bunch of different factors that we start taking into account.

So to do that comparison from a dimensional perspective, again, distribution is one foot minimum. What we're talking about for this transmission project is five and a half. So I'm not that big of a person, right? I'm not that big of a guy.

So roughly this width is minimum. We could run into some instances where it gets wider for certain reasons. But that's a good comparison going one foot to five and a half for this transmission project.

From a depth perspective, again, four foot down to five for the transmission line, there's a couple things that Mr. Jocham talked about that would increase the depth. One, it's additional conduits. So we're

going from one conduit to 10. And we're also -- we're also using concrete backfill, engineered backfill.

The other big difference I think that's worth noting in this comparison, not just the size of the trench, there's -- when you talk about constructing distribution, there's a lot of flexibility that we have when it comes to placing distribution underground.

What I mean by that is when you run into constraints underground that we're concerned about here, we just don't know all the details. We may be able to modify the distribution system pretty easily. Whether that's an easy enough turn to miss, say, sewer or water and other underground utility, or we have the capability to install equipment to make turns or junction cabinets we call them at the surface, we could even look at placing that distribution circuit somewhere else. It just has such a small impact from a footprint perspective when we compare it to the transmission.

So when we look at -- and, you know, this comparison we're talking about, when we look at and compare that to transmission, all of these utilities that are underground that we know of in this area are likely going to create some conflict for us, right?

So there aren't easy ways to intercept or turn the transmission line underground, so what we'll be

looking at is likely moving the other utilities.

So two big things to compare, one, just the footprint is much smaller for distribution, and it's also a lot -- we have a lot more flexibility in how we install it, where we put it, how we can connect it. The transmission is point A to point B, and it's big. And so whatever is in its way is probably easier to move, is just a general comparison.

MS. HILL: And, Mr. Lindsey, one of the Committee members -- I'm sorry, I can't remember which one -- at one point asked a question about does that distribution trench get bigger or cause problems if the other utilities like the underbuild, like the communications underbuild, or that sort of thing join you in the trench? Could you explain that.

MR. LINDSEY: So the answer is yes. I mean, it's going to get bigger to some extent to accommodate additional conduits. But to compare the two, again, which is what we're trying to do here, is the transmission is looking at 10 eight-inch conduits, so a huge footprint compared to our one six-inch for distribution.

When you start looking at communications or gas lines or water lines in this area, they're going to be in the same scale of what we're talking about for our

distribution system. And it's pretty commonplace for us to collocate those utilities. And so if we are looking at any relocations from an overhead perspective or even conflicts underground, there's a long history of that collocation work that we have with other underground utilities even.

From a transmission perspective, this would be such a critical piece of our system and infrastructure that that collocation I don't think is part of our thought process right now. It would need to be its own trench, its own facility.

If communications or other utilities are looking at undergrounding in the area for some reason, it's going to be another trench, where it's pretty common for us to collocate like I'm talking about for distribution. It's just a very typical thing that's done compared to -- I mean, it's -- clear, atypical for transmission. We've never buried 138kV. And, again, it's really critical infrastructure.

MS. HILL: And, Mr. Lindsey, in fact, would TEP as a matter of course if we had a 138kV underground line allow other utilities in their same trench while the line was energized?

Like, so say somebody had to make a repair on their communications line, would we allow somebody to

do that while the 138kV was energized for safety reasons?

MR. LINDSEY: So, Ms. Hill, I think that's one of the reasons why we'd want those utilities located elsewhere.

MS. HILL: Okay. Thank you.

And then just as a point, I mean, if you encountered a major issue with the transmission line route -- and we're asking for a fairly narrow corridor here now -- we would have to return to the ACC or this Committee to have a significant adjustment in the route to avoid things; isn't that correct?

MR. LINDSEY: So, Ms. Hill, for underground or for overhead?

MS. HILL: For, you know, anything really when we're dealing with transmission lines.

MR. LINDSEY: That's my understanding, yeah, from an overhead perspective.

MS. HILL: From an overhead perspective, right.

And then so when it comes to distribution lines, then, our service -- when I -- sorry, I used the first person and it threw me off -- TEP can do the work on the distribution lines; is that correct?

MR. LINDSEY: Ms. Hill, that's correct.

We typically -- well, almost always will

subcontract out what we call the civil work, so the installation of the duct. So the trenching, the installation of the duct, the PVC conduit we're talking about here, that would be subcontracted out.

But the design work for the installation would be done in-house. The installation of the distribution network, so the cables, the switches, any sort of junction cabinets, that's all done in-house with standard equipment we have in the warehouse today.

So it's nothing special for us. It's really just equipment that we stock and that we design on a regular basis.

MS. HILL: Okay. Thank you.

Member Mercer, does that answer your questions?

MEMBER MERCER: Yes. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I have a question for Mr. Lindsey.

I see overhead transmission lines, and when they go to distribution lines, you have transformers.

When you do underground transmission lines, where do you put the transformers?

MR. LINDSEY: Member Gold, underground

distribution lines?

MEMBER GOLD: No. Underground transmission lines.

If you were to have to go with underground transmission lines, you would have to use transformers to go to the distribution side of it, so where do they go?

MR. LINDSEY: So, Member Gold, in that scenario, the transformers would be located in the substations we're talking about here, so Kino Sub, Vine Substation, DeMoss Petrie because that's where we would transform from the transmission voltage, the 138kV we're talking about, to 13.8kV.

So along the route you wouldn't have any transformers from a transmission perspective. It's really located at the substations.

MEMBER GOLD: Okay. So if you underground transmission lines, none of the quote/unquote power lines or telephone poles are going to have those big barrels that are our transformers?

MR. LINDSEY: So, Member Gold, clarification.

The distribution that's along these routes would stay overhead, and you're talking about the white we call them pots transformers that's a distribution piece of equipment that would remain.

To do a quick comparison, if we were to underground the distribution, not transmission, distribution, we have what we call pad-mounted transformers. So all the green boxes you see around town, when they're new they're green, those are new.

MEMBER GOLD: Oh, those --

MR. LINDSEY: Yeah. That's -- some of those are transformers and serve the same purpose to transform from the 13.8kV down to whatever typical houses 120, 240, so that's the smaller transformers.

MEMBER GOLD: So those are the ones that hum?

Wait a second. Are they supposed to hum?

MR. LINDSEY: There's a -- if -- Member Gold, yeah, there's going to be some noise made from a transformer.

The things we're talking about in the field are very small, and you may hear them if you're standing up right next to something, but the sound dissipates very quickly.

Within a substation, much larger piece of equipment from a transformer perspective, it's going to make more noise. But, again, a big reason why we build these big fancy block walls around them that helps dissipate the sound. It's going to hum, but we do try to

mitigate that.

MEMBER GOLD: Okay. Thank you.

MEMBER HILL: I have a question.

CHMN STAFFORD: Member Hill.

MEMBER HILL: Just to follow up on Member Mercer's set of questions.

We didn't talk about it in detail yesterday, but I speculated a little bit about some right-of-way things, so I thought maybe this would be time to talk about it because we're talking about the width and depth of underground distribution versus transmission.

With the underground of distribution, are you more likely to see that kind of construction in the roadbed along a sidewalk, in a front yard?

And then kind of similar question for transmission. Especially in those residential areas where you really maybe only have 80 or 90 feet of road right-of-way how do you engineer that and plan for that and what are kind of your sideboards on how you approach that?

MR. LINDSEY: Sure, Member Hill.

So it kind of goes back to from a high-level perspective why undergrounding distribution isn't that big of a challenge or concern for us.

The footprint, the impact is much smaller, and so the flexibility that we have to make that installation underground is much greater. So just because of the size -- and, like I mentioned earlier, flexibility of where we put it.

So on some of these routes we're talking about undergrounding distribution. That doesn't mean we have to put it right below where it's at. It could mean we underground it on the other side of the street, we underground it in another location and make the same distribution connection.

So the distribution network is much more vast than the transmission. A lot of different places to make the connections. So from that perspective there's a lot of flexibility where we can put it.

I think in this case we would strive to -- and I'm going to look at Mr. Bryner, but from a conceptual perspective, we would be putting that distribution in road right-of-way, right? We would not want to be acquiring easement or private land for such a small facility.

From a transmission perspective, I know you've got more -- you've spent more time looking at this, but that's another concern. It's huge, right? I'm not exaggerating when I do this, because that's five and

a half feet. We say five feet deep, which, you know, if I stood up, I'm just a little bit taller than that. But it could be up to 15 to miss other things, that's the height of this roof, right, or the ceiling.

So that is a significant footprint wherever we're talking about, even if it's not in the neighborhood street.

So that's another factor in -- or another concern we have of just actually getting this thing done.

So I know cost is talked a lot about. Feasibility. We can buy the cable; we can do these things. But when you think about just the concept of putting this type of facility underground, it's tremendous.

And so that's a big unknown. I don't think we can give you a clear answer. Our goal is to put it in right-of-way, but that doesn't mean that will happen, right? There could be some private easements that we're going to need to purchase. Because we can't turn on a dime, we can't -- we just don't have much to work with. It's huge, and it's got to go from point A to point B. There's really no breaking that path.

MEMBER HILL: Thank you.

CHMN STAFFORD: I have a follow-up question.

Looking at the routes, it looks like you're going to have to make some 90-degree turns. How do you do that underground?

MR. JOCHAM: Yeah, so I'll take that question. This is Mr. Jocham.

So you can turn 90 degrees with an underground transmission line, but you're going to do that over a wide radius. These cables can only bend so much, so you're looking at, you know, 30, 50, 60, 70-foot radiuses.

So you may start on the far side of an intersection to make a 90-degree turn and end at the outside of the road that you're turning onto. You're not going to be able to -- like Mr. Lindsey stated, you're not going to be able to turn on a dime.

So you're going to have to thoughtfully kind of guide that -- that curve. And so you may start in an outside lane and end in an outside lane to accommodate that 90-degree bend.

CHMN STAFFORD: All right. Because I'm just looking at the map here. And if you look at Route C, I think you got -- you get several 90-degree turns. For example, the one from Park onto Adams, neither of those streets are particularly wide.

Is it even physically capable of making

that 90-degree turn --

MR. JOCHAM: Yes.

CHMN STAFFORD: -- for that street to the other street?

MR. JOCHAM: Sorry. Yeah. So you could make that turn. The tighter that you make the radius the more pressure it puts on the sidewall of the cable and the more tension it requires to pull that cable in. And so that would more than likely increase the amount of vaults that you have to put in to make sure that you could effectively install that cable.

CHMN STAFFORD: Do you ever have to install a vault to make a turn if it's too tight of a radius you can't --

MR. JOCHAM: That is a really good question. At the transmission-line level, I would say I haven't seen that yet. But I have seen us increase the vault -- or narrow the vault distances due to sidewall pressures on cable.

CHMN STAFFORD: Okay. All right. Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Mr. Jocham, transmission lines that are undergrounded, I have seen them being put

in on major streets. I've never seen them being put in on small residential streets, have you?

MR. JOCHAM: So S & L has been involved in projects where we've gone down side streets in major urban environments. It just increases the complexity in the sense that you're probably not just restricting access in those areas, but you're probably closing them down entirely.

MEMBER GOLD: I was referring to going down a side street and then making a right angle bend. Of course, it's not a sharp right angle. It's a radius as you were saying. I don't think some of those streets are wide enough. There's a reason trucks don't make turns on tiny residential streets.

MR. JOCHAM: Down like such as Vine is a good example.

MEMBER GOLD: Exactly.

MR. JOCHAM: Yeah, it would -- it would add a large amount of complication. That definitely is a detailed engineering problem.

I'm not saying that it's completely impossible, but it would definitely add to the complication during the engineering phase to try to limit the amount of disturbance and disruption to the community and not entirely shut down that road. I can't promise

that you wouldn't be able to do it.

MEMBER GOLD: What I'm saying is I know there's ways to do it.

Instead of going horizontal at say a 45-degree curve, you could go down vertically as well. I mean, that would mean tremendous of excavation, but it's less expensive than condemning property.

MR. JOCHAM: True.

MEMBER GOLD: Thank you.

MR. DEMPSEY: I have some information if I'm allowed.

CHMN STAFFORD: Yes. Mr. Dempsey, please.

MR. DEMPSEY: So Mr. Jocham might be able to confirm this, but the Chandler project, the Intel HIP project, goes through neighborhood -- goes through some neighborhoods. And I believe they go some neighborhoods with two duct banks, not just one.

MR. JOCHAM: Yeah, that is true. They do go down.

But those are honestly larger streets. They have two -- a lane in each direction and a true center turn lane versus something like Vine. But there are --

MR. DEMPSEY: There are two, right, two duct banks?

MR. JOCHAM: There are -- there's a duct bank for the current design from my understanding and a future, yes.

MR. DEMPSEY: Right.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes.

MEMBER GOLD: And in Chandler the streets are much wider --

MR. DEMPSEY: Yeah.

MEMBER GOLD: -- than they are on Vine.

And on Chandler you mentioned two duct banks. Are they vertical one on top of the other or are they side by side?

MR. DEMPSEY: I think they're side by side.

MEMBER GOLD: Now, why would they put them side by side instead of vertical to take up less space?

MR. DEMPSEY: I don't know.

Maybe it's harder to go deeper. I don't know.

MEMBER GOLD: Would that be heat dissipation?

MR. DEMPSEY: Oh, maybe.

MR. JOCHAM: I don't know configuration as built. I apologize.

MEMBER GOLD: I would just say the

footprint of putting them side by side, which Chandler chose, is a much wider footprint than doing it vertically like someone proposed earlier. And if they didn't do it, there's got to be a reason why they didn't do it. I'm just guessing there's a good reason.

MR. JOCHAM: Yeah. I'm not sure the final configuration that it is truly side by side, but there are positives and negatives to both options.

CHMN STAFFORD: Member Richins, I believe you had some questions to ask about the undergrounding costs.

MEMBER RICHINS: I do. So just trying to get -- if we could pull up I think it was 31, Slide 31 of the presentation.

And then, Mr. Dempsey, let's use your UAZ-62.

MS. GRABEL: Chairman Stafford, Member Richins, I actually do have kind of a direct examination that guides my team through Mr. Dempsey's presentation. I wonder if we could do that, and then you could ask any follow-up questions?

CHMN STAFFORD: What's your preference, Member Richins? Did you want to ask --

MEMBER RICHINS: She just wants to do all the talking. I have all this great stuff to say.

Let's do that. That's okay.

MS. GRABEL: I appreciate it. Thank you.

So if we could please pull up first, and then we'll get to our Exhibit 31 as well and obviously interrupt at any time.

So first we're going to pull up UAZ Exhibit 62, which is Underground Arizona's presentation. And if we could begin on Slide 16.

Thank you very much.

So, Mr. Jocham, I'm going to direct these initial questions at you.

So were you here yesterday during Mr. Dempsey's testimony regarding this slide?

MR. JOCHAM: I was.

MS. GRABEL: And Mr. Dempsey testified regarding the cost of construction per mile using Route 1, correct, which is the numbers highlighted in green?

MR. JOCHAM: Correct.

MS. GRABEL: Now, that is not our preferred route; correct?

MR. JOCHAM: Correct.

MS. GRABEL: But we'll look at that route because it's the analysis that Mr. Dempsey performed.

So he estimated total cost of $11.8 million

to construct the line aboveground; is that correct?

MR. JOCHAM: Correct. That matches the place.

MS. GRABEL: Okay. So that's where he got that figure is the place number?

MR. JOCHAM: Correct.

MS. GRABEL: And what was included?

What costs were included in the figure on the place to reach that $11.8 million?

MR. JOCHAM: Yeah. So that $11.8 million includes the installation of the new overhead transmission line at 138kV, the relocation of distribution underground where applicable, and the right-of-way costs.

MS. GRABEL: Okay. Thank you.

And he then includes a route length of 2.9 miles; is that correct?

MR. JOCHAM: That is correct.

MS. GRABEL: Is that the correct distance for Route 1?

MR. JOCHAM: That is not. It is a typo.

MS. GRABEL: Okay. And if you look at your placemats, the correct distance is 4.1 miles; is that correct?

MR. JOCHAM: Correct. I'll refer to

Mr. Bryner to clarify that, but I believe that's correct.

MR. BRYNER: If I could just explain -- sorry.

MEMBER RICHINS: Yeah. I just -- my understanding in testimony was that was the underground portion of that route from Campbell north.

MS. GRABEL: This is the TEP overhead cost.

MEMBER RICHINS: Okay.

MR. BRYNER: Yeah. So Mr. -- oh, sorry.

So Mr. Dempsey clearly he took these costs, these estimates from our presentation TEP Exhibit 8 from page -- or Slide 201 on that where we did reflect a route length of 2.9 miles for Route 1. But that was -- as Mr. Jocham pointed out, that was a typo on our part. The place has it correct at 4.1 miles, the application has it correct at 4.1 miles. It's physically impossible to -- if you draw a straight line between Kino and Vine, it's going to be further than 2.9.

4.1 miles is the correct distance, and we just -- we made a mistake -- I made a mistake on that slide.

MS. GRABEL: So what is the correct cost per mile for Route 1 when the right-of-ways and undergrounding existing distribution facilities is used with the 4.1-mile route length?

MR. JOCHAM: It's approximately $2.9 million per mile.

MS. GRABEL: Okay. And if you can turn to the next slide, Slide 17.

So here we're talking about the underground cost estimates that Mr. Dempsey used in his analysis; correct?

MR. JOCHAM: Yes. Columns do have the underground cost estimate.

MS. GRABEL: Okay. And he begins with the base cost per mile in revision zero of Sargent & Lundy's report that was published in February 2020.

Is that figure an accurate figure to use to determine the costs today?

MR. JOCHAM: No. It is not.

MS. GRABEL: And why not?

MR. JOCHAM: There's multiple reasons.

I think the largest reason is, as I identified in my previous testimony, this original rev 0 was -- no CYMCAP runs were performed, so it was using an idealized cable ampacity, which is not capable for this project.

So that's a single 6,000-kcmil cable per phase based off of the ideal cable capacity provided by the vendor. After running CYMCAP models and doing some

preliminary engineering that's when we determined that two cables per phase were needed.

In addition, as I previously testified, the copper costs and subsequently the cable cost for underground transmission has done -- the copper cost has gone from 2.2 million -- or $2.2 per foot to over $4.2 per foot increasing the cable costs from $120 a foot to $245 a foot.

And then in addition to that as prior also general inflation costs of 21 percent since that date.

MS. GRABEL: Thank you. And to get the next plot on Mr. Dempsey's linear trend line, he goes to a different figure. If you'll advance to Slide 18, he looks at --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm sorry to interrupt you.

But I'm curious if you go down to the revision of Sargent & Lundy estimates for June of '24, the base cost is $16.85 million per mile and the underground total cost is that -- oh, I see that's times the number of miles. I get it. Never mind.

MS. GRABEL: Well, actually, Member Little, you're going to exactly where we're about to get.

So we're walking through the figures that

Mr. Dempsey used in his analysis. And the second one was a September of 2020 report which resulted in a base cost per mile of $8.24.

Why is that figure appropriate to use for today's purposes?

MR. JOCHAM: So it utilizes the same math as rev 0. The difference between rev 0 and rev 1 was to remove the jack and bore costs or the trenchless installation costs through the intersections to show at the time what would have been the Committee for Kino to DMP the lowest installed cost possible.

MS. GRABEL: Okay. And all of the same factors with respect to increased cost of the copper, the bigger cables, and inflation, those all apply to rev 1; correct?

MR. JOCHAM: Absolutely.

MS. GRABEL: Okay. And then he has a line called 8, which is the date of the current Sargent & Lundy report -- if we could advance to Slide 19, Grace, that would be great -- with a base cost per mile of $17.85.

Is that figure contained anywhere in the Sargent & Lundy report?

MR. JOCHAM: It is not.

MS. GRABEL: Okay. What figure is

contained in the Sargent & Lundy report?

MR. JOCHAM: The figures identified in 8-1 and 8-3 are contained in the Sargent & Lundy report.

MS. GRABEL: Okay. So let's take the 16.85 base cost per mile.

Do you agree that the underground total cost in the Sargent & Lundy report is the $30.33 estimated on the slide?

MR. JOCHAM: 30 million --

MS. GRABEL: Sorry.

MR. JOCHAM: Yeah, yeah. $30.33 million per mile. Yes. That is accurate to S & L's report.

MS. GRABEL: Okay. Thank you.

And what costs are included to get to that 30 million -- $30.33 million total project cost?

MR. JOCHAM: That is just engineering, procurement of materials and construction costs.

MS. GRABEL: All right. Thank you.

So do you --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

I'm assuming that means the right-of-way costs are not included?

MR. JOCHAM: Correct. Right-of-way costs or -- or burying of any existing distribution are not

included in that underground cost.

CHMN STAFFORD: Okay. Member Little.

MEMBER LITTLE: Then what is base cost?

MR. JOCHAM: The base cost in Sargent & -- or the base cost in this table?

MEMBER LITTLE: Uh-huh. What does it not include that the $30.33 million does include?

MR. JOCHAM: So the base cost at 16.85 million is a per mile cost. And then if you multiply that by the 1.8 that is where you get 30.33 million.

MEMBER LITTLE: Okay. So the 30.33 is not million dollars per mile, it's million dollars for the --

MR. JOCHAM: Project.

MEMBER LITTLE: -- 1.8 miles?

MR. JOCHAM: Yes. For the undergrounding. Yes. I apologize if I misspoke.

MEMBER LITTLE: Thank you.

MS. GRABEL: Thank you. And if you wanted to do an apples-to-apples comparison of what the aboveground construction per mile would be compared to the undergrounding contained in the Sargent & Lundy report, what is the right, excuse me, overhead figure to use?

So that is the overhead figure not

including right-of-way and the burying the distribution -- existing distribution lines belowground?

MR. JOCHAM: Yeah. As TEP has prior testified, that number is $1.2 million per mile.

MS. GRABEL: Okay. So maybe it would help -- do you have the ability to kind of do the math for the Committee so that they can see it to see what the corrections to Mr. Dempsey's exhibit are?

MR. JOCHAM: I do.

MS. GRABEL: Okay. If you could please do that math for us.

Okay. So taking the overhead route -- oh, go ahead.

MR. JOCHAM: Okay.

MS. GRABEL: Sorry.

MR. JOCHAM: All right. So we got it up.

I prewrote in Route 1. The 1.8 miles is representative of the Gateway Corridor for Route 1.

So if we take -- sorry. I'm kind of stretching myself here. If we take that 1.8 miles and multiply it by the 2 point -- or 1.2 million per mile, we're going to get a total cost of 2.16 million for that 1.8 mile section for just the overhead 138kV transmission line, not including -- it does not include right-of-way, it does not include the distribution underground costs.

MS. GRABEL: Okay. Thank you.

And now if you could please compare that to the underground cost so that we can kind of figure out, kind of reconcile the multiplier differences between Mr. Dempsey's analysis as corrected today versus the Sargent & Lundy analysis.

MR. JOCHAM: Sure. So if you take that total cost of the 1.8 miles, which is 30.33 million, and you divide it by the overhead cost, you're going to come out with an approximate 14 times more expensive, a multiplier of 14 which matches the Sargent & Lundy report.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I think I would prefer to see a comparison including the underground distribution when -- for the overhead cost of this 1.8 miles because what I -- you know what we've been talking about is what it's going to cost the utility to get from point A to point B, 1.8 miles.

And I -- you know, yes, we need to eliminate the right-of-way to be consistent with the -- or the right-of-way acquisition costs to be consistent with the underground. But the utility TEP has committed to putting that distribution underground, and so that

is -- but in the overhead version but not in the underground version.

So in order to compare apples-to-apples, in my opinion, we need to include the underground distribution in that cost.

MS. GRABEL: Certainly.

CHMN STAFFORD: And, Member Little, I believe that that comparison is what I asked for and what the company provided in TEP-31.

MS. GRABEL: And we are just about to turn here.

So, Member Little, what we were doing here was reconciling the multiplier differences in response to Member Richins's question.

I don't know if Member Richins has any additional questions here before we turn to Exhibit 31.

MEMBER RICHINS: This was not where I was headed.

So the cost estimates are the cost estimates. I don't think we're disputing the cost estimates.

What is most curious is Slide 21 of Underground Arizona where it gives three examples of 230kV underground lines in three projects within the last half decade, and it has their actual costs on there.

MS. GRABEL: Okay. Let's turn to --

MEMBER RICHINS: And the multipliers aren't that, but they're also -- this is a unique project in Tucson, and these are unique projects in their jurisdiction.

MS. GRABEL: Certainly.

MEMBER RICHINS: So this here when you look at the bottom three, which I'm going to use as probably the most corollary to 69kV. 69kV is distribution. Mr. Lindsey already talked about how distribution is undergrounded much different than transmission, right?

So we all know that, you know, Sargent & Lundy's estimates should be consistent in this proceeding and in their report, of course. So I don't think that's -- their estimates are in dispute.

But when you look at these numbers, these are what I would like Mr. Dempsey or anybody else to kind of reconcile through because when we look at the -- let's look at the HPFF mitigation phase one.

Is that a completed project by APS or not?

MR. JOCHAM: May I?

MS. GRABEL: It's by SRP. And we'll let Mr. Jocham.

MR. JOCHAM: May I?

So the APS project I don't think is

applicable here. That is definitely not an apples-to-apples.

That project is a conductor replacement of an already installed underground transmission line that is over 40 years old.

MEMBER RICHINS: Okay.

MR. JOCHAM: So it is just a conductor reconductor. They are -- the costs here are to reconductor the line and assess the pipe that it's in, not any pipe replacement if it's determined.

MEMBER RICHINS: Okay.

MR. DEMPSEY: May I?

MEMBER RICHINS: Yeah, I mean --

CHMN STAFFORD: Mr. Dempsey.

MR. DEMPSEY: This is Mr. Dempsey.

So I did not use the -- that's why there's an X. The HPFF mitigation is just there to show it's illustrative. I did not use it in an average.

But I would correct Mr. Jocham in that I do not believe the mitigation phase includes the new conductoring. I assume we'll see that in the next FERC filing. I think the conductors were only recently installed. So this was -- this -- that line item X is purely mitigation, and it is work that was done in 2023.

MEMBER RICHINS: Okay. So then let's look

at Intel and Price Road. Again, very unique circumstances compared to what we're doing here.

But just trying to get an idea about their costs appear to be, you know, 10 to 13 million.

Is that just wildly inaccurate because you have huge rights-of-way down to Intel and not a lot of built infrastructure?

MR. JOCHAM: Yeah.

MEMBER RICHINS: I'm just trying to get my head around why the numbers are so disparate.

MR. JOCHAM: Sure. Yeah. Let me take a crack at what you're looking for.

So, I guess, S & L has really no way of validating SRP's numbers. I have no insight to what those numbers are, where they came from other than the final number provided.

But the projects aren't apples-to-apples. They're different voltages. They have different cable sizes. There's different quantities of duct. There's different landscape, different terrain, different obstructions.

There's -- in these scenarios because they are 230 they're both nonstandard materials, so there is that correlation.

But -- and then generally, you know, 2018

and 2021 there are some inflation costs to consider in there.

MS. GRABEL: And, Mr. Jocham, if I may interject momentarily.

This is -- these are figures compiled from the FERC Form 1; correct?

MR. JOCHAM: Correct.

MS. GRABEL: And the numbers pictured here actually differ from what SRP testified during the hearing was the actual total cost of the project; correct?

MR. JOCHAM: Absolutely.

MS. GRABEL: And we're looking for the testimony that I believe is TEP Exhibit 34 where Zack Heim walks through the total costs, which was something like $54 million that SRP contributed, $30 million that Intel contributed and another 30-some million dollars that the City contributed; is that correct?

MR. JOCHAM: Correct.

The total project cost identified in those slide decks was $123 million.

CHMN STAFFORD: And what is reported on the FERC form?

Is that merely the company's expenditures, or is it total cost of the project?

Mr. Dempsey?

MR. DEMPSEY: It's the total cost of the project.

CHMN STAFFORD: So FERC Form 1 is the total cost?

MR. DEMPSEY: These are not from FERC Form 1. These are actually built from that testimony that they're apparently going to refer to.

And I actually have slides that will walk you through every step when we get there.

MEMBER RICHINS: So state again where these numbers came from.

MR. DEMPSEY: They came from SRP's testimony before the Line Siting Committee.

MEMBER RICHINS: Oh, okay.

MR. DEMPSEY: From their presentation as well as their testimony.

MEMBER RICHINS: But were those estimates at the time?

MR. DEMPSEY: They're the numbers that --

CHMN STAFFORD: Well, I would assume so.

MEMBER RICHINS: Oh, these are from the line siting proceeding?

CHMN STAFFORD: They would have to be estimates because they wouldn't have built the line yet.

MR. RICHINS: Yeah.

CHMN STAFFORD: Like, if they were numbers before the Line Siting Committee, they would have to be estimates because the line wouldn't exist unless it was an amendment to an existing CEC.

MEMBER RICHINS: Yeah, you know, that's exactly right.

And that's what I'm trying to find somewhere here where we have a done, completed, built project that is anywhere representative to the estimates that you're providing.

And I'll go back. When I was on council, we would do estimates on Park projects or acquiring whatever. And I would ask my staff to go back and review estimates versus, you know, final costs, and usually they were off by a pretty good factor. Sometimes more expensive, not always.

So that's just what we're trying to get here is let's find a built project that has gone anywhere close to similar conditions so we can get an understanding of what that might look like.

CHMN STAFFORD: Now, the FERC Form 1, those are actual costs, aren't they?

MR. DEMPSEY: Yes. The FERC Form 1s, they don't get included unless the project's complete.

MS. HILL: May I? I'm sorry. So the --

CHMN STAFFORD: Yes, member -- not Member Hill, but Ms. Hill.

MS. HILL: So I just want to verify before we take it as the gospel about the numbers that are included into the FERC Form 1 that are paid by third parties. And so if you can -- if we can table that piece of that until I can verify that, hopefully it will take me no more than 10 minutes. I just would like to caution that because FERC Form 1 is kind of a little tricky.

CHMN STAFFORD: That's fair enough.

MS. HILL: Okay. Thank you.

CHMN STAFFORD: Yeah. You can do your own assessment and come back and let us know what you found, but that seems fair.

MR. DEMPSEY: May I comment?

CHMN STAFFORD: Sure. Mr. Dempsey.

MR. DEMPSEY: So this table is not about who paid or didn't pay. It's just about compiling best cost based on publicly available data. So this isn't about who paid.

CHMN STAFFORD: Well, I think -- I think the point of contention here is that FERC Form 1, does it reflect to entire cost of the project --

MR. DEMPSEY: Yes.

CHMN STAFFORD: -- or just the costs incurred by filer of the form?

And that's --

MR. DEMPSEY: So --

CHMN STAFFORD: And we've heard you said includes the whole cost of the project. And now the applicant would like to do its own checking to confirm that that is indeed the case.

MR. DEMPSEY: I can prove that as well if we need to.

CHMN STAFFORD: And, Member Richins, did you have further questions or are they still or --

MR. JOCHAM: May I?

CHMN STAFFORD: -- is Mr. Jocham going to provide another answer?

MR. JOCHAM: Yeah. May I add?

So let's take Price Road for an example here. So Price Road is two circuits, but it is a single cable per phase. So you can consider that.

MR. DEMPSEY: That's not correct.

MR. JOCHAM: I'm looking at the riser structures currently, and there's only one cable.

Now, Intel is two cables per phase.

MR. DEMPSEY: Oh, I thought you were talking about Intel. Sorry.

MR. JOCHAM: So Price Road is a double circuit line, but it is one cable per phase. So cable quantity-wise the same as our project because we have two cables per phase. So they installed six cables. We're installing six cables.

So if you take $15.8 million and divide it by 1.6 to make it a million dollars per mile, you get $26 million per mile.

CHMN STAFFORD: Which is in line with what your numbers are on TEP-30?

MR. JOCHAM: So our numbers in TEP-17 are -- are less than that.

CHMN STAFFORD: Okay.

MR. JOCHAM: We're coming in at -- even with the adders, the spare cable, our numbers per mile for Route 1 as a mile-plus section of line, approximately 21.3 or 21.4 million dollars per mile with an installed spare.

MR. DEMPSEY: May I comment?

CHMN STAFFORD: Yes, Mr. Dempsey.

MR. DEMPSEY: So unless you're going to walk through that project, because, I mean, I could do that if you want, I believe you're mistaken.

And I don't know what it physically looks like to you in person, but I believe it was a double

circuit or whatever we have there.

If it's not, then what Zack Heim said in his testimony of 10 to $15 million per mile was way off, and that doesn't make sense either.

So I think you're mistaken. I can look at it again. I have no problem doing that. But --

MR. JOCHAM: I'm not disputing that it's a double circuit line. I -- I agree with you it is.

MR. DEMPSEY: Okay.

MR. JOCHAM: But what you have represented here is correct. It is a double circuit line.

MR. DEMPSEY: Okay.

MR. JOCHAM: My statement is that double circuit line is using one cable per phase. We are using two cables per phase. Therefore, the cable quantity is approximately the same or it is the same.

MR. DEMPSEY: And the Intel project there was a two-cables-per-phase project; right?

MR. JOCHAM: Yes. But I --

MR. DEMPSEY: Okay.

MR. JOCHAM: Again, the numbers -- I can't validate those numbers. I have -- I have not been -- I have -- I am not privy to those numbers.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I don't know who to address this to. It's either Mr. Jocham or Mr. Dempsey.

Can you explain to us laymen the difference with circuits, cables per line, you know, in simple terms?

MR. JOCHAM: Sure.

MEMBER GOLD: In apples-to-apples just stick to the same what are we doing.

MR. JOCHAM: Yeah. Absolutely.

So a circuit is three phases of AC current, so an A, a B, and a C phase.

So typical overhead lines you see three conductors and a shield wire, right?

So the Price Road Corridor project or PRC as SRP calls it is a double circuit line that runs from Knox to Henshaw.

MEMBER GOLD: How many wires?

MR. JOCHAM: So that totals out to six conductors total.

MEMBER GOLD: Okay.

MR. JOCHAM: But they are separate circuits.

MEMBER GOLD: Okay. What does that mean?

MR. JOCHAM: So --

MEMBER GOLD: A circuit you said is three

lines?

MR. JOCHAM: Is three phases.

MEMBER GOLD: Are they three lines?

MR. JOCHAM: So in this situation, yes.

But a phase can have multiple conductors per phase, which is what we're doing due to ampacity reasons.

So to get the amount of current to flow down the line that we need, we're running multiple conductors in parallel to get the amount of power to flow down.

MEMBER GOLD: Okay. So within the cable you have two lines?

MR. JOCHAM: So we -- electrically what happens is at the riser structure you will have a connection to two terminations, and those cables will run in parallel, not -- not twice the size, but in parallel next to each other.

Power flows path of least resistance. So it generally flows equal between the two conductors. And then on the other side as it comes back up it will reconnect aboveground.

MEMBER GOLD: All the cables that we saw earlier in this presentation had one line in the middle of the underground cable.

Are you saying that there are cables that have two lines in them, or are you going to put two cables side by side?

MR. JOCHAM: Can you bring up TEP-17, please? And page 23 of TEP-17. Oh, sorry, 24 of the PDF. Thank you. This works. Yep. Perfect. So what I'm -- right is red; right?

Okay. So you have three cables, which are let's say A, B, and C. And then you have another three cables, which are A, B, and C. We're asking for two cables per phase to meet the ampacity requirements of this project.

And so this cable as A and this cable as A are the same. They run in parallel next to each other. And the same thing with B and B and C and C.

And then this would be an installed spare also two cables per phase. So if we ever needed -- if there was ever a reliability or a fault on the line, you could switch to those grayed out positions and utilize that in either -- for any position, A, B or C, once it's energized.

MEMBER GOLD: So if I were looking at this at an overhead transmission line, there would be six wires plus a spare on each side?

MR. JOCHAM: On the overhead we wouldn't

need the spare, but there would be six cables on the structure.

MEMBER GOLD: Gotcha.

MR. JOCHAM: But they --

MEMBER GOLD: Gotcha.

MR. JOCHAM: -- on an overhead transmission line they're much closer together. So we would basically combine them on the same insulator, and they would be inches apart from each other.

MEMBER GOLD: Gotcha.

MR. JOCHAM: So very common on higher voltages. If you see a 345 line -- a good example is TEP's 345 lines I think have three cables per phase -- or just two, sorry, just two cables per phase. 500 lines typically have three to four cables per phase.

MEMBER GOLD: Okay. So looking at this, we have three lines, three wires for the three different phases. Plus a spare because it's underground, and if it was on a transmission pole, you would just have the three lines for the three phases?

MR. JOCHAM: Correct.

MEMBER GOLD: And when they said a double circuit, they mean the same three phases but on six lines with two spares underground?

MR. JOCHAM: Correct. Because the circuits

don't go to the same transformer.

MEMBER GOLD: Gotcha. Okay. I understand now. Thank you.

CHMN STAFFORD: Did you have more questions, Member Richins?

MEMBER RICHINS: No. I think we're making some good progress seeing, like, projects that actually were, you know, paid for.

So I'm feeling a lot more comfortable with the estimates. Thank you.

CHMN STAFFORD: All right.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: It could be that we're headed -- or people that are sitting in the room there are headed in this direction, but I think that a more meaningful ratio comparison would be to use the numbers that are given in TEP-31 for the total cost of the circuits under the three different scenarios: Overhead, underground, assuming that you go underground in the Gateway Corridors, and the third scenario is the total -- is the undergrounding Gateway Corridor and University Area Plan.

Those ratios I believe are much more meaningful than the cost of undergrounding a mile of --

of transmission for our purposes here today.

CHMN STAFFORD: Right.

And I think 31 doesn't have ratios. It just has total costs for the --

MEMBER LITTLE: I know.

CHMN STAFFORD: -- circuits or line.

MEMBER LITTLE: I can get you those ratios if you want them.

CHMN STAFFORD: Yeah. I didn't do the math, but, yeah.

Okay. So is that what you want?

Do you want to give us those ratios so we have a --

MEMBER LITTLE: Well, I would be glad to.

And assuming I did my math right, for A, total cost as proposed for overhead to total cost underground in gateway is 1 to 1. The same for B going down the column. And the same for C.

For D, the ratio of total cost, assuming you underground in the Gateway Corridor, compared to the total cost of overhead is 2.44 times.

MS. GRABEL: So, Mr. Chairman, Member Little, if I may interject momentarily.

MEMBER LITTLE: Yes.

MS. GRABEL: So the total cost of the

project is not undergrounding the entire project. It's only undergrounding the portion of the line that runs through the Gateway Corridor and the University Area Plan.

And so, for example, if you look at our preferred route, the delta -- the delta between $9.5 million constructed belowground -- I mean, aboveground versus $33.2 million belowground is due to 1.19 miles of underground installation.

MEMBER LITTLE: I'm aware of that.

MS. GRABEL: Okay.

MEMBER LITTLE: And that's why I believe that this is a much more reasonable comparison.

If you go to the next column where we're comparing the total cost to underground in both the Gateway Corridors and the University Area Plan areas compared to the total cost of overhead, it is 2.6 times.

For B, it's 3.5 times.

For C it's 4.5 times.

And for D, it's 3.1 times.

Going down to the numbered routes. And now I was looking at the total cost for undergrounding in both the Gateway and the University Area Plan. It is 4.5 times as much as overhead.

For 2, it's 4.1 times as much.

For 3, it's 4.3 times as much.

For 4, it's 4.1 times as much.

For 5, it's 4.6 times as much.

And for 6, it's 3.1 times as much.

And I didn't do the other ones yet.

So it kind of gives you a feel for we're not talking about 14 times as much to construct Route A, for example. It's because as Meghan explained, it is -- only part of it is undergrounded.

CHMN STAFFORD: Right. And the other factors that the total cost as proposed includes the undergrounding of the distribution lines that are present.

MEMBER LITTLE: Right. And I believe that from what I understand these are total estimated costs --

CHMN STAFFORD: Exactly.

MEMBER LITTLE: -- under the three different scenarios of constructing each route.

CHMN STAFFORD: Right.

And I believe in the line siting statutes that's the most appropriate basis of comparison.

MEMBER RICHINS: Mr. Chairman.

MEMBER LITTLE: Yes.

MEMBER RICHINS: I have a question --

CHMN STAFFORD: Certainly.

MEMBER RICHINS: -- for Mr. Lusk.

Can you confirm that there are portions of this proposal that you will not be requiring to be undergrounded nor require a variance to keep overhead?

Sorry. You have somebody. Yeah.

I'm going to redo that question. Sorry.

MR. LUSK: That's okay. Thank you.

MEMBER RICHINS: They were distracting me too.

MR. LUSK: Sorry, Member Richins.

MEMBER RICHINS: Sure.

MR. LUSK: Go ahead.

MEMBER RICHINS: I just wanted you to confirm that -- and pick any route, so I think it was the southernmost. Hold on -- I don't know where the actual lines that we draw between is it a speedway?

MR. LUSK: For the Gateway Corridor?

MEMBER RICHINS: Yeah, the Gateway Corridor and the --

MR. LUSK: Sure. So the Gateway Corridor includes there's a crossing at Oracle, at Broadway, and then the Gateway Corridor is Campbell.

MEMBER RICHINS: So south of there will you be requiring the applicant to underground power lines, or are they okay doing overhead?

MR. LUSK: South of?

MEMBER RICHINS: The beginning of the Gateway Corridor.

MR. LUSK: So the beginning of the Gateway Corridor on Campbell is down right around where the -- if you see where the railroad lines are.

CHMN STAFFORD: There we go.

MR. LUSK: Yeah, there you go.

CHMN STAFFORD: We've got the map up now.

MR. LUSK: Sorry. It's a little bit farther.

So the Arroyo Chico is the beginning of the Gateway Corridor on Campbell. It's also on Kino. But the route doesn't go that way.

MEMBER RICHINS: So are there -- are any of the routes south of Broadway required to be underground?

MR. LUSK: South of Broadway, so only that smallish portion of Route 1. And I guess I don't think 2 hits that. Between the Broadway and Arroyo Chico. And then the other routes just cross over at Broadway except for Route 2, which runs along Broadway for a portion.

MEMBER RICHINS: Okay. Very good. I had one more question. Oh, I remember. Sorry.

The estimates for undergrounding, then, are for everything north of Broadway, right?

MR. JOCHAM: So the cost estimate for Route 1 starts at basically 14th and Kino Parkway. So right as we enter this corridor.

MEMBER RICHINS: Okay.

MR. JOCHAM: So it does include the underground in that section.

MEMBER RICHINS: Okay. And then any of the other routes it's north of Broadway?

MR. JOCHAM: Correct.

MEMBER RICHINS: Okay. With the -- yeah, except for, yeah, 1. Okay. Thanks.

MR. JOCHAM: Yeah. 2 includes the underground along Broadway.

CHMN STAFFORD: All right. Are there any other questions from members?

(No response.)

CHMN STAFFORD: I believe we have one more factual issue to resolve. I believe that is the applicant wanted --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm sorry. I do have some general questions that don't have specifically to do with routes.

CHMN STAFFORD: Be my guest.

MEMBER LITTLE: Okay.

CHMN STAFFORD: Because once we finish the questions here, we're going to move on to closing arguments from the parties. And so --

MS. GRABEL: I also have a little bit more testimony I would like to elicit.

CHMN STAFFORD: Okay. All right. So we have a little bit more. We're almost to closing arguments.

So ask your questions, Member Little, please.

MEMBER LITTLE: Okay. We did not talk much about the environmental study, but on page 329 of the application, there's a letter, I believe, from Arizona Game & Fish that says, "Analysis indicates that your project is located in the vicinity of an identified wildlife habitant connectivity feature," which surprises me immensely. I don't know, maybe coyotes.

But I'm just wondering -- they make some recommendations or, I guess, they say that the project evaluation program should be consulted for a specific project recommendation.

Has anything been done about that, or is it -- I mean, driving through that area, I wouldn't consider anything would necessarily need to be done, but

just curious.

CHMN STAFFORD: That sounds like a Mr. Bryner question.

And I would venture to guess it has something to do with the Arroyo Chico Wash.

MR. BRYNER: It's fun to break out the application once in a while.

So I -- just to be completely honest, I don't remember reading that before. So I know it wasn't in our biological evaluation anything about that, so I need to research that a little bit.

I would surmise as did the Chair it's Arroyo Chico Wash because it's the only possible wildlife connective corridor in the area. But I would like to maybe take a look at it on our break.

CHMN STAFFORD: Okay.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: All right. Then --

MEMBER LITTLE: I don't consider it's particularly important, but it was there, so --

CHMN STAFFORD: Yes. Thank you. Thank you for bringing our attention to that, Member Little.

MEMBER LITTLE: And I'm wondering whether TEP has requested and been granted exceptions and/or variances to the undergrounding requirement on -- I know

we talked about that one over in the -- what was it called? -- the -- now I can't remember what it's called -- over on the other side of Interstate 10.

MR. LUSK: That was the Silverbell --

MEMBER LITTLE: Thank you. Yes.

MR. LUSK: -- scenic corridor zone.

MEMBER LITTLE: Now I see it.

And I'm just wondering whether there are any others, and, if so, what the experience has been in timing, you know, the resolution of those requests?

MS. GRABEL: Mr. Bryner, first of all, perhaps clarify that TEP was not the applicant for the Silverbell variance.

MR. BRYNER: That's correct. Yeah. For Silverbell, that was -- again, that was the City, not TEP, seeking that variance.

There hadn't been the special exception process until recently that was developed, so the variance would have been the only relief that would have been possible. And to our knowledge, we've never sought relief, nor have we ever been placed in a situation where we've been denied the opportunity to build our infrastructure either within a Gateway Corridor or within the University Area Plan.

MS. GRABEL: Until this Kino to DMP

project, correct, Mr. Bryner?

MR. BRYNER: Correct.

MS. GRABEL: Thank you.

MEMBER LITTLE: Have there been areas where -- I mean, 46kV I know is subtransmission, but have there been areas where TEP has been allowed to build the lines overhead in the areas that -- areas similar to those that are now being considered?

MR. BRYNER: So just to clarify, Member Little, are you talking about any areas that are designated as Gateway Corridors --

MEMBER LITTLE: Yes. Yes.

MR. BRYNER: -- and/or specific plans?

MEMBER LITTLE: Yes. Yes. Yep. Gateway Corridors.

MR. BRYNER: So within Gateway Corridors there's many instances we've been allowed to build distribution 46kV and 138kV lines within those corridors.

MS. GRABEL: And, Mr. Bryner, specifically the Irvington to Kino project line, which is first phase of this process, was allowed to be built aboveground without a special exception or a variance; correct?

MR. BRYNER: That's correct for about a half a mile stretch on Benson Highway.

And the most recent example would have been

our Irvington to -- our Irvington to Patriot project that was constructed just last summer within the Kolb Gateway Corridor.

MR. LUSK: Member Little.

MEMBER LITTLE: Has there been any discussion about what the differences is with this project?

Why all of a sudden the game has changed?

MR. BRYNER: Is that a question for me?

MR. LUSK: Member Little, maybe I can follow up a little bit to give some clarity.

Mr. Bryner, TEP participated in the variance process for Silverbell; isn't that correct?

MR. BRYNER: To my knowledge, yes.

MR. LUSK: And they presented for the board of adjustment?

MR. BRYNER: That I don't know. But I'll take your word for if you're saying that.

MR. LUSK: Other than saying I was there, you wouldn't disagree with me, I assume?

MR. BRYNER: No.

MR. LUSK: Okay. And you were provided that variance as we heard in testimony.

The distribution poles that you're describing that have been built in the Gateway Corridor

Zone, do you know if there were lines there previously before the Gateway Corridor Zone?

MR. BRYNER: I have the records. In some cases, yes, they're replacements. In other cases they're new.

MR. LUSK: And do you have the approvals for those new ones?

Zoning approvals I mean.

MR. BRYNER: I don't have them before me. I'd have to dig in our records.

MR. LUSK: Okay. So that question came up yesterday from Mr. Castro, and I tried to research it for the Committee, and I couldn't find any.

Would that surprise you?

MR. BRYNER: That there were no approvals?

MR. LUSK: Zoning approvals.

MR. BRYNER: Zoning approvals?

So I know our process is we submit a right-of-way use permit, and then we get our approval that way.

MR. LUSK: And the right-of-way user permit is submitted to the department of transportation and mobility?

MR. BRYNER: That's correct.

MR. LUSK: So it's not a zoning approval

issued by the planning and development services department?

MR. BRYNER: Correct.

MR. LUSK: Thank you.

MEMBER LITTLE: So I'm still confused about what the difference is.

MR. LUSK: So what it appears to be from Mr. Bryner's testimony is that they received right-of-way permits, which are different than zoning approvals.

So a zoning approval is provided by Mr. Castro's department stating that they're zoned for that particular area and use.

What may be happening and has happened in the past is that when TEP because of their franchise is able to build within the right-of-way as is their right under that franchise, they may not have participated in a zoning approval for those activities and may have built it without knowing that the Gateway Corridor Zone was prohibitive of that activity.

MS. GRABEL: So, Mr. Bryner, will you address the Irvington to Kino project in which the City -- was the City given notice of the 138kV transmission line being built along the Gateway Corridor.

MR. BRYNER: Sure. In this we had a similar outreach and stakeholder engagement process that

we undertook as part of that project or similar to the outreach we did on this project for that project. And so the City did participate in discussions on multiple occasions on that project.

MS. GRABEL: Thank you.

MR. LUSK: I'm sorry, Member Little. I think you had a follow-up, Member Little.

MEMBER LITTLE: Yes. I'm just -- I'm very perplexed as to why the game is played one way one time and another way another time. I don't mean to belittle the process by calling it a game.

MR. LUSK: That's understandable.

Member Little, if I can further clarify it.

There has been -- and this is -- there's nothing not public about this particular issue, but there have been some miscommunications and things have been missed. And the City is willing to take the responsibility for that and has in the litigation between the two parties.

But that's not to say that we don't want to enforce our code. And that's the reason why in the last few years we've had these discussions with TEP is to begin to enforce that code appropriately.

MS. GRABEL: Mr. Bryner, if I may follow up with that.

Was there any organized neighborhood opposition to the construction of the 138kV line from Irvington to Kino?

MR. BRYNER: I believe as Mr. Lindsey testified there was not.

MS. GRABEL: Do you happen to know the general -- whether or not the area from Irvington to Kino is designated as a low-income community?

MR. BRYNER: It is.

MS. GRABEL: Thank you.

CHMN STAFFORD: All right. Any other questions from members?

Ms. Grabel, did you have another exhibit or something you wanted to --

MS. GRABEL: No. I just wanted to have a little bit of a dialogue with Mr. Lindsey before the Committee listens to closing arguments and enters into its deliberations.

MR. DEMPSEY: Am I allowed to talk about after she's done I guess retestify just to clean up a few things?

CHMN STAFFORD: There's some -- there's some misconceptions you need to clarify? Is that what you're saying?

MR. DEMPSEY: Yeah.

CHMN STAFFORD: Okay. Certainly. Let's --

MS. GRABEL: We can do that first.

CHMN STAFFORD: Do you want to do that?

MS. GRABEL: If it's relative to the construction stuff.

MR. DEMPSEY: Is that not what you're going to finish talking about?

MS. GRABEL: Not really, no.

MR. DEMPSEY: How about you finish and then I'll go?

CHMN STAFFORD: Well, we're talking about construction costs right now, so if it's -- if it's about the construction costs, it's probably better for you to do it now.

MR. DEMPSEY: All right. Sure. Yeah, that's fine.

Okay. So let's see here.

Can you guys bring up my slides from yesterday? I'm sorry I didn't prepare you.

MS. GRABEL: So I guess I just want to clarify, Mr. Dempsey. You're just going to continue to respond to the information that Member Richins was asking about?

MR. DEMPSEY: Yeah. Some of the statements that were made. Yes.

MS. GRABEL: Okay. As long as it doesn't deviate from the discussion today.

MR. DEMPSEY: I can't imagine why it would.

CHMN STAFFORD: All right. So you're pulling up your -- this is your exhibit number -- can you identify what you're putting on the screen, please, Mr. Dempsey.

MR. DEMPSEY: Have we -- did you put that up just now?

MS. GRABEL: It's Exhibit 62, UAZ-62.

CHMN STAFFORD: Is that what you're looking for, your 62 that's in your slide show?

MR. DEMPSEY: I can work with this. I can work with this Slide 37 from Exhibit 62.

CHMN STAFFORD: Okay. Perfect.

MR. DEMPSEY: So I certainly did not know that you guys had screwed up your numbers. I wasn't intentionally doing that.

I just want to point out that even if you assume $2.9 million instead of $4.1 million or you change this a little bit or that little bit, it doesn't change my overall point, which is that you're talking about a little over $20 million difference assuming the low end which is more in line with recent experience in Arizona, and I wasn't trying to give you here's exactly what it's

going to cost.

I'm just trying to give you guys, you know, a ballpark based on looking at comparables. And honestly looking at comparables, the numbers, these numbers are high. I would expect it to be closer to $15 million.

I would not expect it to cost -- I mean, it should not cost more than the Intel project cost. It just shouldn't. I know there's been some inflation. I can show some things related to that real quickly.

Could we go to Slide 64 of my presentation? Okay. So this is the copper spot price over the last 20 years. And I don't have a pointer. But as you can see over the year 2021 in the year 2021 the price of copper shot up.

The Intel HIP project went before the Line Siting Committee in late 2021. I believe it was November. So you would expect them to largely have these price increases baked into their numbers. Maybe not completely, but they should be, like, oh, my gosh, you know, we -- the price of copper just went up.

So I would not say that inflation is not included in those numbers. And then as you can see, it's basically flat. It's actually been coming down. I haven't looked at it in the last week because we've been busy, but it's relatively flat since 2021.

So and surface producer price index, we were looking at inflation numbers. Inflation -- again, PI inflation has only been 2 and a half percent since then. So there's going to be some inflation, but it's not -- it certainly shouldn't be 200 percent inflation or 300 percent inflation.

Give me just a second, please. And, I mean, I could walk you guys through how I calculated my numbers if you want me to. I just checked them again. I don't see any errors in how I came up with my calculations. I don't know if it's worth our time to go through them all, but that's really up to you guys.

CHMN STAFFORD: Well, I don't know that it would require additional testimony. I think it's something that you could probably address in your closing.

MR. DEMPSEY: Okay. Sure.

MR. LUSK: Mr. Chair, just briefly can we go back to the previous slide? I just had a quick --

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: And Member Richins and I discussed this a little bit yesterday, and I just wanted to jump in so I don't need to take too much time if that's possible.

So the numbers from revision -- and this is

probably for Mr. Jocham, the revision 0 -- 1, you took out what you said was the jack and bore?

MR. JOCHAM: Trenchless installation, yes.

MR. LUSK: Through the intersections?

MR. JOCHAM: Yes.

MR. LUSK: So am I right in saying that's $850,000 of the amount?

MR. JOCHAM: Yeah. That's multiple jack and bores, but, yes.

MR. LUSK: Was it the multiple jack -- well, I guess it's just that 1.5 mile area?

MR. JOCHAM: Correct.

MR. LUSK: Do you know about how many intersections that was?

MR. JOCHAM: I think we assumed three, but I would have to go back to the report and validate it.

MR. LUSK: Okay. So assuming it is three, it would -- it's a fair number to say $850,000 for three intersections to jack and bore if you had to underground them?

MR. JOCHAM: I would have to validate, but the math makes sense to me.

MR. LUSK: It's a reasonable assumption?

MR. JOCHAM: Yeah, if it is three, correct.

MR. LUSK: Okay. Thank you. That's all I

have.

MR. DEMPSEY: I just have one more comment on this slide. And it was kind of presented as I was walking through the numbers as though they compared to today. That's not what I was doing. I was just showing you what the numbers were in those estimates. It wasn't suggesting that it's $8 million today. Just clearing that up.

That's it. Thank you.

CHMN STAFFORD: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: So did I hear you to say the term jack and bore?

I'm guessing you use that to go under roadways?

MR. JOCHAM: Mr. Gold, that'll be a term that I can describe. Yeah. So basically what a jack and bore is is you excavate basically large trenches on either side, and you put specialized equipment down into those holes.

They're typically probably 30 feet wide by at least a sand pit is 30 feet wide by 50 feet long and probably about 20 feet deep. And you basically have a pipe rammer that rams a large diameter pipe through the

ground. And you excavate the dirt out of that. And then you have special spacers that you then run your conduit through.

And so basically the intent is that it doesn't disturb anything above it. So jack and bores are used for shorter distances. The max length of a jack and bore especially at that diameter is probably somewhere in the 6- to 800-foot range, which is well within the parameters of the intersections that we're trying to cross and basically allows you not to disturb anything above it.

So it wouldn't disrupt the actual intersection itself. It would just affect maybe a lane or two on either side.

So basically if we were to cross Speedway as an example along Campbell, we could set it up in such a manner not to affect Speedway significantly, but it would still have impacts on Campbell.

MEMBER GOLD: Okay. So do you need a -- are you allowed to do a jack and bore in these areas, or do you need the permission, or is that in your contract with the City?

I mean, what's legally required to do a jack and bore?

MR. JOCHAM: Yeah, I don't know about the

requirement aspect.

In our most current cost analysis, we assumed a -- we assumed the jack and bores in the adder cost just to be transparent at low cost or base cost. So those jack and bores are trenchless installations and are part of the adder side of that final report.

But you would use them to minimize the impact of major thoroughfares through the city. And so I can -- from experience and from our company's experience when we hit major intersections, it's typically a requirement by the City because they -- and I'm not speaking for Tucson. I'm saying this is in a generality. It's typically required by a city because of the amount of disturbance that trenching through the intersection would create.

MEMBER GOLD: That part I understand.

MR. JOCHAM: Yeah.

MEMBER GOLD: It sounds like a great way to get from one side of the road to the other if you're moving cable.

My question is do you need any special permitting?

Is that covered by your agreement with the City, the franchise agreement?

What do you need to say, okay, we can do

the jack and bore against this corridor?

Do you need any special permission?

MR. JOCHAM: I'll maybe refer to TEP for that one or may be the City can answer that question.

MR. LUSK: Member Gold, if it would help, I can -- I think I can answer that generally.

MEMBER GOLD: Please.

MR. LUSK: Which is, yeah, that I think the right-of-way use permit that Mr. Bryner was talking about earlier, that would cover that kind of activity.

MEMBER GOLD: So pretty much that's not going to be an issue, a constraint on any project that they take?

MR. LUSK: No. As long as they follow the procedure and the code, yes.

MEMBER GOLD: So it's the right what did you call it?

MR. LUSK: Right-of-way use permit.

MEMBER GOLD: Right-of-way use permit.

Okay. So I'm looking at some of these options. And at the most they have three times when they'll have to use this to cross major corridors.

What was that price you gave again for each jack and bore?

MR. JOCHAM: So I'll refer you to TEP-17

for that. Our price for the jack and bore is very clearly stated in the appendices along with all of our other pricing. It is very transparent.

MEMBER GOLD: How much is it for a jack and bore?

MR. JOCHAM: So it's broken out in sections, but the actual jack and bore effort --

MEMBER GOLD: Per intersection. Just give me a price per intersection, please.

MR. JOCHAM: Give me one second.

MR. LUSK: Is it page nine through 12? Is that right, Mr. Jocham?

MR. JOCHAM: Sorry. So the -- our spreadsheet, which provides prices in the PDF, is on A-4, which clearly breaks it out.

But, yeah, the summary of the jack and bore adder would be in the Table 5, Table 6, and Table 7 summary.

So I believe Route 3 in our report or Table 7 is a single jack and bore. And that cost base for a single jack and bore is $934,000. So it's about a million dollars to go across the intersection.

MEMBER GOLD: So one million dollars per --

CHMN STAFFORD: One intersection?

MR. JOCHAM: Correct.

CHMN STAFFORD: Okay.

MEMBER GOLD: One million per intersection.

And it's covered under the right-of-way use permits, so you don't really have any difficulties getting that permission to do?

MR. BRYNER: No, we don't.

MEMBER GOLD: Thank you.

And the most I saw was three.

MR. JOCHAM: So there -- on Route 1 there would be three jack and bores.

MEMBER GOLD: All right. You don't have to go further. Just clarifying. Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm just curious on shorter sections of undergrounding transmission lines, for example, through a neighborhood, for example, down Vine is it ever considered to just put in the vaults and jack and bore between them to decrease the amount of disruption?

MR. JOCHAM: From a cost perspective, I guess we've never been asked to do that before because jack and bores are typically significantly more expensive than an open trench.

But at that point, I would probably play to

a different trenchless installation, which would be called an HDD, or a horizontal directional drill, which you could go longer distances, which, again, much more expensive, but it provides you that option.

MEMBER LITTLE: All right. Thank you.

Just my engineering curiosity.

CHMN STAFFORD: All right. Well, we're coming up on the 90-minute mark.

Are we -- is it a good time to take a break?

Can we -- I guess let me rephrase.

How far away from -- how far away are we from have having closing arguments?

I remember, Ms. Grabel, you had something else you needed to add?

MS. GRABEL: Probably five or ten minutes with Mr. Lindsey.

And then we do have the information on the FERC Form 1.

CHMN STAFFORD: Okay.

MS. GRABEL: I think she wants a break.

MR. LUSK: I heard "please," Chairman.

CHMN STAFFORD: Okay. Yes. I wasn't sure if she said "please" or "proceed." So I was -- that's why I had the look of confusion on my face.

So, yes, let's take a brief recess, approximately 10 to 15 minutes and come back. And we'll wrap that up. And then we can get to closings. With that we stand in recess.

(Recess from 2:58 p.m. to 3:25 p.m.)

CHMN STAFFORD: Let's go back on the record.

Ms. Grabel, Ms. Hill, I believe you had some final testimony to get on the record?

MS. GRABEL: Yes, thank you, Mr. Chairman. I think first Ms. Hill will give the information regarding the FERC Form 1.

MS. HILL: Okay. Thank you. So the FERC Form 1 is a very long document, but there are -- they are available online. But essentially -- so work under construction, I want to preface this, which is probably not a surprise to anybody, but work under construction is reported in a different area than completed transmission lines.

So work under construction is reported on what is currently page 216 of that form.

But completed projects are reported on pages 422 to 423, which is transmission line statistics.

The cost reported is only the cost on the utility's books net of any contributions. We do not

include or report those third-party contributions on the cost of the line.

The form's instructions specify to use book cost. And book cost is the actual cost because they're following general accounting principles according to the FERC Form 1 instructions.

Book cost at the actual cost incurred under the capital construction process net of any contributions.

And then if you look at page 422 to 423, instruction -- depending upon the year of the form, it's Instruction 9 or 10 which tells you to do that. And in the very beginning of FERC Form 1 in the instructions, it tells you which accounting principles you must use in reporting.

So that's the information I can give the Committee.

CHMN STAFFORD: Thank you.

MR. DEMPSEY: And may I respond?

CHMN STAFFORD: Yes, Mr. Dempsey.

MR. DEMPSEY: So I did not use those figures, I used figure that are from a section called "Transmission Lines Added During the Year." And those figures are not, at least surface APS goes, net of third-party funds. They are the cost.

And the way you can verify that is by looking at what the business district in Scottsdale was charged which I believe was $3 million and then what's on the form which is also $3 million. So if it was net it would only be $1 million.

MS. HILL: I believe we're actually talking about the same section, it's just different pages different years.

MR. DEMPSEY: You're talking about transmission line statistics, that's a different page than transmission lines added during the year.

MS. HILL: I am. If you look at the transmission line statistics it says the same thing. "Base the plant cost figures called for in columns J to L on the book cost at the end of the year."

So even if you look at the transmission line statistics or if you go to the transmission lines added, that includes that.

MR. DEMPSEY: So we can -- I can prove to you that what I've done is correct. I just -- let's do it, I guess. Is there a way to --

CHMN STAFFORD: Well, do we have the FERC Form 1 in question?

MS. HILL: So we do not have the entirety of it, and the sections that Mr. Dempsey has don't

necessarily have the precise page numbers on them.

CHMN STAFFORD: Is it an exhibit?

MS. HILL: Yes, they are. They're exhibits.

CHMN STAFFORD: Can we please pull that exhibit up? Which one is it?

MR. DEMPSEY: I'm figuring out which one is the best one to use. Hold on a sec, please.

MS. HILL: So I'm looking at UAZ-39, which is the 2020 APS FERC Form 1.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: Ms. Hill, is it possible that from utility to utility how they calculate a book value might be different?

Is -- I mean, I know you haven't worked for a lot of utilities but I am just kind of wondering if it's a discrepancy with how they manage their books and whether -- whether they're a public utility or a regulated utility, do you have -- do you have any knowledge of that? And if you don't, I understand. But that was my first thought.

MS. HILL: So the very first thing that I can say is that we can only speak from what we understand. We are audited on a regular basis as is APS.

I cannot say why APS may or may not report something. We also do not have the figures for each of these projects in a definitive way of what contributions were there or were not there.

My statement is simply the same as Mr. Dempsey's has been for us, which is a cautionary tale about assuming what might be present and what might not.

MEMBER HILL: So it is possible that you guys are both correct? It's just nuances about how a utility interprets the instructions in the FERC form?

MR. DEMPSEY: And may I clarify? The part she's referring to does not say book value for the part I'm referring to.

She's referring to a completely different section that I didn't use. So I'm not even clear that that's -- there is a disagreement. She's using a different section. I pulled it from the -- a different section that has nothing about book values. And surface I can tell looking at Scottsdale, the public records from Scottsdale city council and everything else, comparing it to the APS FERC Form 1, they're the same number so they certainly can't be net.

MS. HILL: So I'm just going to note, too, when you talk about Scottsdale there are a couple of things.

Number one is that there is a public utility district, I believe, in the Scottsdale -- that he is talking about an undergrounding district unless I'm mistaken, and he's talking about a different Scottsdale. I couldn't even begin to tell you how that might be reported.

But ideally, all that I am saying -- I mean, really and truly and that's why I wanted to drill down on this a little more, is that without -- and these are exhibits that were added very quickly as many are in these types of scenarios. So, but without depositions or intensive discovery I would suggest that the cautionary tale that Mr. Dempsey tells for the numbers that we provided be applied here as well.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: Chairman, in an effort to kind of maybe settle this out a little bit is I think the TEP exhibit -- sorry -- Exhibit 31 gave good, probably the best estimate; right? Of what the cost multiplier looks like.

And I think based on what I heard from Underground Arizona and from Mr. Jocham was that there's a wide variety of costs that could be expected when going underground. And it just really depends contextually about where you're doing it and what the conditions are.

So I feel satisfied that we really have taken the best guess at numbers for this project. And what we've tried to compare in the past has illustrated that it's just really a wide variety based on those conditions.

So I'm comfortable moving forward past this.

CHMN STAFFORD: I'd agree with you, Mr. Richins.

So I -- Ms. Grabel, you had some, what other additional testimony did you want to provide?

MS. GRABEL: Thank you, Mr. Chairman. We'll be quick. I just -- as the hearing has gone on, there have been several times where the back and forth between the Committee or the lawyers and the witnesses have seemed to assume that TEP will be undergoing underground construction of a portion of this line, and so I would like to ask Mr. Lindsey.

Mr. Lindsey, if this Committee declines to make the findings of fact we've asked them to make, and we go to the City of Tucson and the City of Tucson declines to grant us a special exception, whether just over the Gateway Corridor or the University Area Plan, whatever's applicable, will TEP pay -- will TEP basically build this transmission line underground?

MR. LINDSEY: So as we've been discussing and this isn't anything new; right, through our public outreach, through the development of this project, without funding from some outside source, no, we would not be building the project underground.

And I know we've looked at a lot of numbers and we've gotten into the details which has been great for me, too, because I wasn't paying attention to that as closely as others.

Those dollars are significant. So depending on the routes of this project, those numbers add up quickly to underground. But what we're looking at isn't just this project. So this is an important project, but there's projects on the horizon, there's projects that we know we need to build in our Ten-Year Plan that's public. There's going to be projects beyond those, of course, to support reliability for the TEP system on a transmission side of things.

And so while we're talking this project, we're talking big dollars to underground here today, you multiply that out, extrapolate it out to what we have in front of us, and those numbers get even bigger.

And so it's not -- while it's important and critical to this project, it's also a huge significant cost impact to us looking down the road, not just here

today.

MS. GRABEL: And Mr. Lindsey, do you recall Mr. Bakken's testimony if you didn't even include the cost to underground transmission lines, TEP is facing a $3.5 billion construction budget?

MR. LINDSEY: Yes, I do, Ms. Grabel. And I think it's important to note that's over the next five years. So that is -- it's kind of our budget or business plan cycle is a five-year look.

I can guarantee you where I sit in the world looking at how we support the clean energy transition, what we have to do from a transmission and generation perspective just to do that, that takes us way down the road past five years, and so that three and a half billion is the five-year spend we're looking at.

And so those numbers continue into the future as we look to continue to expand our system, support our customers' goals, support our company goals, and that includes safety and reliability and everything we've been talking about.

MS. GRABEL: And Mr. Lindsey, how many -- do you know what percentage of TEP's customers are low-income customers?

MR. LINDSEY: So from what we've been talking about and what I understand, roughly 20 percent.

MS. GRABEL: Thank you. So if we don't construct this project belowground, what are we going to do? Because there are reliability challenges that this Committee seems to fully understand.

MR. LINDSEY: Correct. So that's a concern of ours as we've been talking about. And as we talked some last week, we're going to be in front of -- in front of y'all in a hurry, so as fast as we can move we'll be looking at another transmission project to connect Kino. That's a big issue for us. We've talked about that, a radial to Kino is a problem. We need to get that loop closed. So there's a project guaranteed.

We foresee, we know there's issues outside of DMP in the future. This project solves that problem from a system reliability and compliance perspective without it. We've got another transmission project. And like we got into the details last week, we're going to be investing in the 46kV system, investing in our old substations that we really want to retire. We really want to get out of those little neighborhood subs that we all saw on the tour.

And we'll be spending more and more money on those facilities, ultimately without the benefit of a looped system of additional technology at the Vine Substation supporting our customers' integration of

technology.

So we'll be spending money and really not getting the value out of what we need to do with that project.

MS. GRABEL: And rebuilding the 46kV system will not solve the issues raised in the saturation study, will it?

MR. LINDSEY: That's also correct, Ms. Grabel. So it will not support what we foresee in the future for Midtown in any way. So it would require a wholesale significant rebuild of the 46 to even get close to what this project brings.

MS. GRABEL: Thank you. Nothing further.

CHMN STAFFORD: All right.

MR. LUSK: Mr. Chairman.

CHMN STAFFORD: Hang on a second.

MR. LUSK: Go ahead.

CHMN STAFFORD: I was going to -- since you provided testimony, now I think it's only fair to allow the party to cross-examine the catch-all panel, what were we calling it, not -- cleanup panel, yes. So with that we'll move to --

MR. BRYNER: Chairman Stafford --

CHMN STAFFORD: Yes, Mr. Bryner.

MR. BRYNER: Before we open up to cross,

can I do one last cleanup for Member Little's question about the biological evaluation?

CHMN STAFFORD: Oh, excellent. Please.

MR. BRYNER: So over the break I was able to look into the issue and I apologize for not being prepared on that.

So our biological evaluation does report there's no wildlife connectivity linkages in the area. So that's why I was kind of caught off guard and I clearly scanned the report from the Game and Fish a little too quickly.

So what's going on there, and I'm referring to TEP's application, our Exhibit C-2, and it's page 316. It's the Arizona Environmental online review tool. It's the report that comes out of that.

So this is a tool that you go in and you put your project in there. You draw in the boundaries of it and then it buffers off of that. It's an automatic review tool and it kicks out and says you've got these various special status species within the vicinity of your project or other things.

And so one of the things that it looks for are wildlife connectivities, but it's a very vast buffer. And so it pushed out and did find one of those connectivity linkages on the west side of I-19. It's the

Coyote-Ironwood-Tucson linkage. And so it's not anywhere in the vicinity of our project.

And so that's why when the wildlife biologist looked at it, not even on the map. When the wildlife biologist looked at it, he said we don't have any wildlife connectivity linkages here.

So that would be my response.

CHMN STAFFORD: Excellent.

MEMBER LITTLE: Thank you very much, Mr. Bryner.

MS. HILL: And I have one more cleanup question.

CHMN STAFFORD: I actually have a couple myself, but please go ahead.

MS. HILL: Mr. Lindsey, I just want to follow up on the statement about the wholesale rebuild of the 46kV system to even come close to being able to meet the saturation. You recall that immediate testimony that you gave?

MR. LINDSEY: Yes.

MS. HILL: Would that wholesale -- so I want to be very clear -- that wholesale rebuild, would that result in additional overhead 46kV and distribution lines within people's viewsheds that this Committee doesn't have any jurisdiction over?

MR. LINDSEY: So, Ms. Hill, maybe I'll start from a distribution perspective. This concept that has not been studied in any detail like this project, would still support our 4 to 14kV conversion we've been talking a lot about. And so likely from a distribution perspective, those lines that you see today would get upgraded to the higher voltage.

And, again, from a high level, I wouldn't anticipate -- to meet saturation -- maybe I'll step back -- to meet saturation, distribution-wise, yes, you could anticipate additional distribution lines.

But, again, as we talked, undergrounding those facilities is much more -- is a much easier endeavor. So from a viewshed perspective I think our optionality is available to us. And so from a distribution perspective I wouldn't be too concerned about impacting viewshed because we can -- we work with the technology we have.

From a 46kV perspective, absolutely. Anticipate line upgrades that would look similar to what we see on the 138kV side, the larger poles, the larger conductor to get the capacity up. But a rough rule of thumb we are talking about here from a capacity perspective, 46 is only good for about a third of what the 138 can do. It's just the math.

So a rough answer would be we'd need three times this line. But that's a little bit of an exaggeration. You would anticipate us to upgrade what you see today and likely add several additional lines to get there.

And talking saturation is a hard concept because it's really that future full buildout state. That state also encompasses the transmission system. And so when we talk saturation for Midtown we can focus on these what-ifs about the 46, about the distribution. But the transmission also has to support that load.

And so as we continue to peel that back and step up the system, we're going to have to add additional transmission without this project like I mentioned, because of the configuration.

MS. HILL: Thank you. So I just want to be clear, what I think I heard you say is a wholesale rebuild of the 46kV system requires both additional transmission, even though it's not this project, to meet saturation, and it also would require additional 46kV lines being placed in Midtown Tucson. Am I correct?

MR. LINDSEY: That's correct.

MS. HILL: Thank you.

CHMN STAFFORD: All right. Ms. Grabel, I believe you had an additional, Exhibit TEP-36, which is

the amended or revised proposed CEC.

MS. GRABEL: Yes, that's correct, Mr. Chairman.

CHMN STAFFORD: I'll admit that.

(Exhibit TEP-36 was admitted.)

CHMN STAFFORD: Do you have anything else you need to get from the panel?

MS. GRABEL: Nope. We're set.

CHMN STAFFORD: All right. With that let's -- Ms. De Blasi, do you have any questions from this witness?

MS. DE BLASI: Mr. Chair, we do not have any questions.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: Thank you, Mr. Chair.

Mr. Lindsey, I just want to go back to your previous testimony just a second ago. You heard Mr. Jocham discuss sort of the -- actually can we get TEP-26 up again, please?

And while they're doing that, you heard Mr. Jocham talk about sort of the cost of undergrounding through an intersection. Does that seem -- do those numbers that he mentioned seem reasonable? I think about a million dollars an intersection.

MR. LINDSEY: So Mr. Lusk, I don't have as

much experience as Mr. Jocham, but I can tell you my only experience with jack and bore is one specific TEP project under I-19.

And the cost estimates and time line that it took us to complete that work were -- how do I want to say this -- we estimated the cost and time to be drastically lower than the actual. So we spent a significant amount more time and cost to get that jack and bore done underneath the freeway.

So I can't speak specifically to the cost but I guess I could say it doesn't surprise me based on previous experience.

MR. LUSK: The amount that Mr. Jocham stated doesn't surprise you?

MR. LINDSEY: Doesn't surprise me, yes.

MR. LUSK: So a million dollars per intersection seems like a reasonable number based on your experience with the I-19 project?

MR. LINDSEY: That's how I would answer that, yes.

MR. LUSK: Okay. Looking at your preferred route is B-4?

MR. LINDSEY: Yes.

MR. LUSK: Am I correct in stating that you would have -- and this is worst-case scenario, as I think

Ms. Grabel discussed -- where you weren't able to get any special exception for any intersection in the areas of your route. Is there three intersections that you'd have to do?

MR. LINDSEY: From a Gateway Corridor perspective, yes.

MR. LUSK: Yes, for Gateway Corridor. I'm sorry, I didn't mean -- I should have clarified that. You're right, just for the Gateway Corridor section.

So there are three intersections that would pass through the Gateway Corridor, which if everything went not your way, you would have to go underground through those intersections?

MR. LINDSEY: So --

MR. LUSK: Just as it relates to the Gateway Corridor.

MR. LINDSEY: Yes. Because everything not going our way is more than the Gateway.

MR. LUSK: Sure. But for that regulation itself I'm just speaking of.

MR. JOCHAM: Mr. Lusk, I'd like to maybe clarify one thing. So the jack and bore cost, that million dollars is just the jack and bore. That does not include the cable. That does not include the installation. It is just the physical construction of

the jack and bore itself because it is a specialty contractor, it is a broken-out line item.

MR. LUSK: Do you want to revise your number?

MR. JOCHAM: So I don't know if I can -- I don't think I can quickly calculate how much just 200 feet of underground installation is. I guess what is represented in our report and in the jack and bore section is purely the civil work required for the jack and bore because it is a specialty contractor.

MR. LUSK: So if I remember from your testimony earlier, it was about $245 per foot?

MR. JOCHAM: That's the cable cost; correct.

MR. LUSK: So the cabling, that's another $50,000 per cable; is that right? I'm doing pretty good for a lawyer you got to admit.

3: 45 times six times -- what did we say, 200 feet approximately.

MR. LUSK: Yeah, 200 feet I think is what you said, yeah.

MR. JOCHAM: So 245 times six cables times 200 feet is about $300,000.

MR. LUSK: Okay. Which is about 5,000 a cable?

MR. JOCHAM: Sure.

MR. LUSK: And you would include the spares as well?

MR. JOCHAM: Correct.

MR. LUSK: So that would be eight cables?

MR. JOCHAM: Correct.

MR. LUSK: So another $400,000?

MR. JOCHAM: Correct. But that --

MR. LUSK: Then -- oh, go ahead, please.

MR. JOCHAM: That doesn't include the mobilization, that doesn't include the riser structures on either side. That doesn't include testing and commissioning, that doesn't include a lot of other line items that are clearly identified in the appendix A of our report.

MR. LUSK: Can we double the number, $2 million per intersection? Would that be reasonable?

MR. JOCHAM: I don't know pulling the numbers together. I don't want to speculate.

MR. LUSK: So --

MR. LINDSEY: Mr. Jocham, we also missed the cable to get up the riser.

MR. JOCHAM: Up the riser. Fair enough.

MR. LINDSEY: So, I mean we're talking about a lot of detail to dead end overhead, dip

underground for a roadway, and then also riser back up to an overhead line.

And so we don't know if that would have to be done and how far those dead end structures would need to be located based on other underground conflicts where the structure -- because, again, these dead end structures have large foundations associated with them, and so they can't just be put wherever.

There is a lot that goes into what we're talking about here, Mr. Lusk.

MR. LUSK: I totally understand, Mr. Lindsey. Thank you.

MR. LINDSEY: It is going to take, you know, this is something you'd ask your civil engineer to work on for a few weeks.

MR. LUSK: Well, and I'm not trying to nail you down to a number. I guess what I'm trying to be considerate of is the Committee has to make a determination that the Gateway Corridor Zone itself, specifically the Gateway Corridor Zone, is unreasonable to comply with; right, given technology available.

So you have focused very much on cost. I don't think anybody up there has ever said you couldn't do it physically; correct? Is that -- am I right?

MR. JOCHAM: Just undergrounding through

the Gateway Corridor?

MR. LUSK: Through the intersections. Just through the intersections; right? For your preferred route you only have to underground through the intersection.

MR. JOCHAM: Constructible, yes.

MR. LUSK: And, in fact, you've also said it's possible; correct?

MR. JOCHAM: Yes.

MR. LUSK: Thank you.

MS. GRABEL: If --

MR. LUSK: So I just want to make sure that the Committee has enough information that they can make that determination. So when we're talking about whether or not you can, for the route you have chosen, whether you can proceed with that route even if you didn't get the special exception process, which I think Mr. Bryner feels pretty comfortable with, that they would get, I want to understand sort of that differential for you because you mentioned that you wouldn't construct it if you -- if it were cost prohibitive.

Does that make sense, Mr. Lindsey?

MS. GRABEL: First I'm going to object to that, Chairman Stafford. I think that Mr. Lusk put words in Mr. Bryner's mouth. And I think he clarified his

testimony earlier today.

CHMN STAFFORD: What was the question?

MS. GRABEL: Whether or not he was comfortable that we would get the special exception if we applied for it.

CHMN STAFFORD: He previously testified that -- I think initially he testified that he was pretty comfortable, then I think over the course of the hearing he became less comfortable with at least one of the three intersections, and I believe that was the one where it crosses -- you go along Euclid and you cross Broadway because it's also in the University --

MS. GRABEL: Area Plan.

CHMN STAFFORD: -- Area Plan. So there was a concern it would not be granted because of that additional factor, so that -- so he was less confident in that, one of the three intersections, that was my understanding of his testimony.

Is that correct, Mr. Bryner?

MR. BRYNER: Yes, I would agree with that.

CHMN STAFFORD: Okay. I think that's your answer, Mr. Lusk?

MR. LUSK: I think so. And Mr. Bryner, please feel free to correct me if I mischaracterize anything you've said. I just want to be clear in terms

of sort of, again, what the Committee is looking to decide is whether that particular regulation prevents you from completing the line that you want to complete, which is B-4.

So, and I don't think anybody's testified that you can't do it physically or technologically. Is that correct?

MR. BRYNER: Correct.

MS. GRABEL: And I guess Mr. Bryner can't really answer what the City would allow in terms of the special exception and that's how I'm hearing it.

MR. LUSK: I'm not asking -

MS. GRABEL: That's my question. That's how I'm hearing it.

MR. LUSK: Yeah, I'm not asking -- I'm not asking Mr. Bryner to determine whether a special exception would be granted. In fact, I'm asking both Mr. Lindsey and Mr. Bryner to assume that it's not. That it's not granted.

CHMN STAFFORD: Which then would require them to underground under the roads just as he described with the risers and then the --

MR. LUSK: That's right. Okay. Does that make sense, Mr. Lindsey? Mr. Bryner?

CHMN STAFFORD: I seem to recall testimony

earlier if they have to do that they would not be building this line, they would be spending a bunch of money band-aiding up their 46kV system. That was the answer to that that I heard, testimony that I heard previously. Is that correct?

MR. LINDSEY: Mr. Chair, yes, that's correct.

MR. LUSK: Well, and so that's what I want to dig into just a little bit, Mr. Lindsey, because I think at this point what I would think is a conservative estimate to go, just to underground an intersection, if I double the numbers that we just discussed it's $3 million, which would be $9 million total to do that.

I am just going to ask you if my math is right. Let's just say that.

MR. LINDSEY: What --

MR. LUSK: So for --

MR. LINDSEY: For three? Yes, I would agree with that.

MR. LUSK: Okay. I got one. Okay. Thank you.

CHMN STAFFORD: So the testimony that, because it's kind of -- it's getting late and everyone's starting to kind of speak over one another. I would just remind everybody to please speak one at a time, wait till

the person asking the question is finished speaking before you start your answer, and wait until they finish their answer before you start your next question.

But it seems, Mr. Lusk, that the point you're trying to make and -- is that if TEP has to underground one crossing, the marginal cost of that is going to be approximately $9 million and not tens of millions of dollars that undergrounding large chunks of the line would cost. Is that -- is that the point you're trying to make, Mr. Lusk?

MR. LUSK: I think the marginal cost is $3 million times three intersections for $9 million.

MR. JOCHAM: And that's speculation until we can actually calculate the cost.

MR. LUSK: And you don't have any additional evidence on that?

MR. JOCHAM: I have not calculated the cost of just crossing the intersection. But --

MS. HILL: And I have a follow-up if I may, Mr. Chairman.

CHMN STAFFORD: One second. Let Mr. Lusk finish.

MR. LUSK: If I could just get to the -- I'm trying to get to the end here.

So Mr. Lindsey, I think you testified --

was it you what testified earlier that the band-aid solution was for -- to get you from -- I can't remember if it's from here to '27 or from '27 to '30 was $10 million.

MR. LINDSEY: Roughly. So we have invested just over 10.

MR. LUSK: To get to --

MR. LINDSEY: To get -- to bridge us to 27, so that's existing investment. And we're looking at another close to 10. So it's just shy of 10 million if we slide past the '27 time frame, yes.

MR. LUSK: And that would be, I assume -- I think -- well, I don't assume. You testified earlier I think that would be recovered in rates, that $10 million?

MR. LINDSEY: Yes, sir. That would be our intent.

MR. LUSK: So my understanding, again, with the math is that you would rather spend $10 million to band-aid to 2030 than underground three intersections at $9 million?

MR. LINDSEY: That's not what I said, no.

MR. LUSK: Then please clarify for me.

MR. LINDSEY: Clarify that we would need to spend 10 million roughly, just less than, if we miss the '27 date. Yeah. We would need to specifically make

upgrades at Olson substation.

MR. LUSK: Well, no, what I'm asking for --

MS. GRABEL: Mr. Lusk, I can help.

MR. LUSK: Wait, wait.

MS. GRABEL: Excuse me.

CHMN STAFFORD: Is there an objection there?

MS. GRABEL: It's a clarification.

CHMN STAFFORD: Let him ask his question.

MS. GRABEL: That I think will help him.

MR. LUSK: I'm think I'm -- I'm trying to -- I'm trying to get there. So I'm just asking, you said -- you just testified that you would not build the line if you couldn't get the special exceptions. Am I wrong in that?

MR. LINDSEY: No.

MR. LUSK: Okay. Then please clarify for the Committee what you meant by what you said earlier.

MR. LINDSEY: No, you're not wrong.

MR. LUSK: Oh, I'm not -- I'm sorry. Sorry. It is getting late.

So you're saying that you would not build a line if you had to get the special exceptions even though it could possibly cost less and you would have the line.

MR. LINDSEY: I did not say that.

MR. LUSK: Okay. Then clarify then, I guess, for the Committee.

MR. LINDSEY: Clarify what?

MR. LUSK: I think what I heard you say was in response to Ms. Grabel's question you would not build the line if you didn't get the relief you sought here. Is that right?

MR. LINDSEY: That's correct, yes.

MR. LUSK: Now, is that related to the Gateway Corridor Zone or both?

MS. GRABEL: Mr. Chairman, I'm going to object that misstates Mr. Lindsey's testimony.

MR. LINDSEY: So I can repeat the context of that statement.

MR. LUSK: Sure.

MR. LINDSEY: So we have --

CHMN STAFFORD: Let's do that, then. So I guess the objection was that he misstated the testimony. Well, the remedy I guess is to allow him to restate his testimony so there's no misconception or misstatement of it.

MR. LINDSEY: Again as -- thank you, Mr. Chair. So as I spoke just a few minutes ago, our concern is more about the future spend of transmission.

So we have a number of projects in our

Ten-Year Plan that are all over our service area. So to the west of here, straight through the city of Tucson upgrades required, Oro Valley, Marana, Sahuarita, so we can talk about those projects in detail if you'd like.

And our concern is that undergrounding in this project will require undergrounding in future projects. And so if we're going to look at an alternatives analysis on a bunch of what-ifs, I can't answer that. So that's part of our engineering process.

So the questions that you're asking me specific to this project don't really apply to the context that I was speaking to.

So we're more concerned about future transmission projects from an underground perspective as much as we are here. So just know the underground numbers we were looking at previously are significant compared to overhead costs.

MR. LUSK: And I understand that, Mr. Lindsey, and I'm not trying to get you to design from the dais here today.

All I'm trying to understand and again trying to make clear for the Committee is they have to make a specific decision on a specific regulation and whether or not you can comply with it or whether it's not feasible with the technology available.

Now, you have cited -- TEP has cited that it's not feasible because of the cost.

So if the testimony today is that the cost is a particular number, whatever the number, is then they need to know the information in terms of the alternatives for them, not necessarily based on what you will do in the future.

Does that make sense?

CHMN STAFFORD: Well, I guess that's your position but I don't think the witness can take a position on that.

MR. LUSK: Well --

CHMN STAFFORD: It's not his call to decide what TEP's going to do necessarily, I think. So Mr. Lindsey, was there --

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: I know this back and forth a very interesting, but if I remember correctly, Mr. Lindsey talked about, okay, let's do the -- if we don't do this we are going to do the band-aid approach. The band-aid approach to me is like what are you talking about? What about reliability? I mean, I don't care if it's 10 million or 20 million, if you are putting a band-aid approach, what's the point?

MS. GRABEL: And Mr. Lindsey, if I may ask some clarifying questions now, because I think it will help.

CHMN STAFFORD: Are you done, Mr. Lusk?

MR. LUSK: Along that line of questioning I'm fine with her clarifying at this point. I just want to make sure we got to the end of it.

CHMN STAFFORD: Okay. Please -- and then before you do I -- make sure we're trying to close the loops here before we get done. And at this point it's looking less likely that we're going to get through closings today.

But I remember there was a discussion about the other neighborhood plan overlays and whether they would require undergrounding. There's a list of them in the application that were potentially implicated by this project.

The City witness didn't have an answer whether or not they would require -- they themselves would require any undergrounding. And it's my understanding that someone was going to clarify that point and address which ones were specifically would be implicated. Has that happened? Is someone prepared to tell us?

MS. GRABEL: Mr. Bryner, are you prepared

to answer the Chairman's question?

MR. BRYNER: Sorry. Just ate a bite of cookie.

CHMN STAFFORD: You thought it was all on Mr. Lindsey. Now all of a sudden they're asking you questions.

MR. BRYNER: That's what I thought.

So I believe I answered that question earlier. It's really the University Area Plan and the Gateway Corridor Zone that are implicated with respect to location of underground utilities.

The Sam Hughes Neighborhood Plan is for Route 2, but Route 2 only. I think there was a question about the historic and neighborhood preservation zones, but my testimony was that there is no nexus, no tie that would require underground because they are focused on design guidelines with respect to the structures, the buildings within those zones.

CHMN STAFFORD: Okay. So the focus is then on the Gateway Corridor and the University Area Plan.

MS. GRABEL: That would be subject, Mr. Chairman, to the City's confirmation that TEP's interpretation is correct.

CHMN STAFFORD: Okay. Yes. And is that forthcoming?

MR. LUSK: I'm sorry, we were having a side conversation. I apologize, Chairman.

CHMN STAFFORD: No problem. Did you hear the question?

MR. LUSK: I didn't. I apologize.

CHMN STAFFORD: Ms. Grabel, what was the --

MS. GRABEL: Certainly. So TEP's position is that what are the districts, Mr. Bryner? Can you please repeat them.

MR. BRYNER: The neighborhood preservation zone and the historic preservation zone.

MS. GRABEL: And our position is that those zones do not require that any portion of the project within those areas be undergrounded, and we just wanted the City's confirmation that our interpretation is correct.

MR. LUSK: So without looking at them directly I can't speak to that, but my understanding is there's no specific regulation in those zones, in those overlays as relates to undergrounding.

CHMN STAFFORD: Okay. Thank you. That was one of the loose ends that I wanted to make sure I tied up before we wrapped on the presentation of evidence.

All right. Ms. Grabel, did you have another clarifying question for the -- I guess you were

about to ask Mr. Bryner before I highjacked it.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Before we get off this topic just a quick question about the jack and bores.

When you do a jack and bore you have to have towers on both sides?

MR. JOCHAM: Riser structures, correct.

MEMBER GOLD: Riser structures. How tall are they?

MR. JOCHAM: They would be similar to the 138kV, so 75 to 85 feet.

MEMBER GOLD: So on either side the Gateway Corridors, you would put up towers, poles, towers that are 75 to 80 feet tall.

MR. JOCHAM: Yeah. Yes.

MEMBER GOLD: On either side instead of just the line going over it if you did not do a jack and bore; is that correct?

MR. JOCHAM: Correct. And those structures would be dead end structures, so they would be much larger. They would have large terminations standing off on arms, those terminations would be a couple feet tall and pretty big in diameter.

So they would be visually impactful.

MEMBER GOLD: Very visually impactful. So from a visual perspective, and this is for Mr. Lusk, it appears to be that the jack and bore would not visually improve the Gateway Corridor. As a matter of fact, it would detract from it because of the two towers they'd have to put on either side that are right -- would be adjacent to the Gateway Corridor and I just wanted to make sure if that is correct.

CHMN STAFFORD: I think you're almost there. I think the jack and bore is a construction technique. It's the undergrounding under the roadway which is the additional cost they're talking about and the structures that are required for that, whether trenched across the road or jack and bore.

That's my understanding. Is that correct? Because the jack and bore is a construction technique. It doesn't have anything to do with the structures. I mean, you have to have the structures there regardless of whether you trenched it or whether you jacked and bore.

MEMBER GOLD: But if you didn't have to put it underground, if you just did an overhead line.

CHMN STAFFORD: You avoid all that.

MEMBER GOLD: They could be hundreds of feet away from the corridor.

CHMN STAFFORD: Right. Exactly. Because

the structures they're talking about, the dead end structures, they had -- that's where it goes underground to cross.

MEMBER GOLD: Yes.

CHMN STAFFORD: That's the transition from the overhead line to the belowground line; correct? That's -- I'm seeing nods in agreement. Yes.

MR. JOCHAM: Correct.

CHMN STAFFORD: That's a jack and bore, yeah, that's --

MEMBER GOLD: I understand. I'm just saying to get across the Gateway Corridor, if we are concerned about a Gateway Corridor, which means you want it to look good when people come in and out, whereas I thought the jack and bore would be great, nobody sees anything, that was not a correct assumption.

The assumption would be you would have gigantic towers on either side of your Gateway Corridor, pretty much adjacent to it, and that would be an eyesore, in my opinion. What is your opinion, Mr. Lusk?

MR. LUSK: My opinion? Well, I think we actually have a picture of it. Mr. Bryner, do you have that available for us?

MR. BRYNER: Yeah, it's in --

MR. LUSK: Mr. Jocham's report. Is that

right?

MR. JOCHAM: It's in my presentation.

MR. BRYNER: It's in his presentation. TEP-16? Page 3 or 4.

MR. JOCHAM: Page 4.

CHMN STAFFORD: Let's pull that up and see what we're talking about. And then, Ms. Grabel, for clarification, is that structure listed in the application as one of the potential structures for the line that typically get approved with these type of -- any kind of transmission line, or is that -- or is it incorporated by reference from the report?

MS. GRABEL: Chairman Stafford, it is not included as a typical structure, because it would be associated only with an underground transmission line, and we don't need approval to build an underground transmission line. We're seeking the construction of an overhead transmission line. But we do see one depicted on Mr. Jocham's slide.

MR. LUSK: So it's the one on the right, Mr. Jocham? Is that right?

MR. JOCHAM: Yeah, so this would be a riser structure. This is during active construction, so you can see the crane hook here. They're actually pulling the cable through the conduits and up into the riser. So

this is an incomplete riser, but it is a representation of what the structure would look like. This is a 138kV riser.

So you can see the arms here and there's one right at the top of the picture here for the third phase. This particular riser is a single cable per phase.

So you would actually have, you can kind of see this angled platform at the end of the arm. That is where your termination sits. You would have two of those on each arm for the two cables per phase.

You would have all of the cables running up the face of the pole here, and then after installation you would install a large shroud around those cables to protect the cables from any vandalism. And that would go around this porch, what's called a porch here where you see all these conduits coming up out of the surface of the ground.

And so that con -- or excuse me -- that shroud would wrap around all of these conduits and go about 20 feet up in the air on average.

MR. LUSK: Than you, Mr. Jocham. That's very helpful. Oh, and just to -- you said where they're pulling the line, those protuberances from the pole, do those get removed?

MR. JOCHAM: Sorry. Do these get removed?

MR. LUSK: No, go up the pole. Those.

MR. JOCHAM: No, those are used to hold the cables as they go up the pole.

MR. LUSK: So they stay there.

MR. JOCHAM: Yeah, you basically have clamps that attach to that and the cables attach to the clamps so those large angles are used to support the cables as they run up the pole face.

MR. LUSK: So it doesn't go through the cable or through the pole.

MR. JOCHAM: No, no. It is on the outside.

MR. LUCK: Gotcha.

MR. JOCHAM: I think TEP does have distribution risers where the cable goes inside the pole, but that would not be the case for transmission.

MR. LUSK: Gotcha. Thank you.

MEMBER GOLD: So as I was -- just learned, this would not enhance the appearance of a Gateway Corridor?

MR. LUSK: Well --

MEMBER GOLD: At least not in my opinion.

MR. LUSK: And not -- not in your opinion, I agree, Member Gold, that this would not likely be, I would agree that any pole in the Gateway Corridor Zone

does not enhance its visual appeal.

MEMBER GOLD: Mr. Lusk, thank you.

MR. LUSK: You're welcome.

MEMBER GOLD: Mr. Jocham, thank you. I had no idea what a jack and bore was nor did I have any idea what goes alongside of it.

I can see this use of this if you're trying to get across an interstate. But I cannot see the use of this when you're trying to just get across a gateway. Thank you.

MR. LUSK: So if I can -- I'm sorry, Ms. Grabel, do you have any further clarification?

MS. GRABEL: I have some, yes.

MR. LUSK: Go ahead, please.

MS. GRABEL: Okay. So Mr. Lindsey, Mr. Lusk asked you some questions about just spending $10 million on the existing system to get reliability benefits and tried to compare it to the cost of crossing perpendicularly underground.

That $10 million spend you referred to, that gets us only to the year 2030; is that correct?

MR. LINDSEY: That's correct.

MS. GRABEL: And so to maintain safety and reliability beyond the year 2030, how much will TEP need to invest in its 46kV system?

MR. LINDSEY: So as we discussed last week, that approximation is north of 50 million.

MS. GRABEL: Okay. Thank you. And you'll also then have to have come up with a transmission solution; correct?

MR. LINDSEY: That's correct.

MS. GRABEL: And that would also likely be in the millions of dollars range?

MR. LINDSEY: Yes.

MS. GRABEL: Okay. Thank you.

Can we pull the TEP exhibit that was just up? Was that Exhibit 26, I believe?

MR. LUSK: Yes, for the Gateway Corridors.

MS. GRABEL: For the Gateway Corridors. And I just want to clarify for the Committee why the University Area Plan is such a concern for us. It's not simply the crossing of Broadway along Euclid.

Mr. Bryner, I'm going to ask you this question. I believe we mentioned that in order to get a special exception, the fact finder in the special exception process has to make a finding that the route is consistent with the University Area Plan. Is that your understanding?

MR. BRYNER: That's correct.

MS. GRABEL: And so is it a possibility, I

hope the Committee can see that the University Area Plan does -- it looks like goes through Broadway. And so there's a portion of that crossing that implicates the University Area Plan.

Is it TEP's concern that there's a possibility that the City of Tucson in the special exception process will approve our special exceptions only if it finds that -- only if we also construct the University Plan area underground?

MR. BRYNER: Yes, that is a concern.

MR. LUSK: I'm sorry, Ms. Grabel. Can you clarify what -- I don't -- I didn't understand your question.

MS. GRABEL: Certainly.

MR. LUSK: What length are you talking about?

MS. GRABEL: The entirety of the route that runs through the University Area Plan.

Because the -- because the fact finder will need to, in order to approve the project, find that its decision is consistent with the applicable University Area Plan. And if that fact finder decides that the University Area Plan requires undergrounding, it could as a condition to approving the special exception require the underground construction of the line throughout the

entire route that runs through the University Area Plan.

Is that TEP's concern?

MR. BRYNER: Yes, that is a concern.

CHMN STAFFORD: So we're talking from the Vine Substation down Route 4 to Broadway, that it would go aboveground south of Broadway?

MS. GRABEL: I think it's actually the portion of the line that runs down Park into Vine and then from Vine south until it crosses Broadway.

CHMN STAFFORD: Yeah, I said from the Vine Substation.

MS. GRABEL: Oh, my apologies, yes.

CHMN STAFFORD: Till it gets south of Broadway would be -- it looks like the University Area Plan if it does indeed require undergrounding would require undergrounding all way from the substation until it got south of Broadway Road based on this map.

MS. GRABEL: Yes, but there's also the segment in Route B that runs from the Vine Substation up to Grant. And that's the second portion that we'd be worried about.

CHMN STAFFORD: Oh, yes. I'm just looking at the numbered sections here, not the lettered sections.

Okay. Yeah.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I'm trying to figure out the University Area Plan. Isn't the proposed Vine Substation right in the middle of it?

MS. GRABEL: Yes, it is, Member Gold.

MEMBER GOLD: So you're going to have to go through the -- what was the terminology, the guy that makes the decision?

MS. GRABEL: Special exception process.

MEMBER GOLD: So he's got to make a special exception for the Vine plan just for starters; is that correct?

MS. GRABEL: The substation, yes. That's correct. I don't know if it's the same individual. Perhaps Mr. Bryner knows.

MR. BRYNER: It would go through the zoning examiner, both. We'd need a special exception for the substation. We need a special exception for the perpendicular crossings of the Gateway Corridor.

MEMBER GOLD: But aren't these the people in the University Area Plan who need the power?

MS. GRABEL: Mr. Bryner, do you want to answer that question?

MR. BRYNER: Yes.

CHMN STAFFORD: That's yes, you can answer

the question and yes, they need the power?

MR. BRYNER: Yes to both.

MEMBER GOLD: Thank you.

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: So I just need a little bit of clarification. Ms. Grabel just asked the question, if they do the repair or the band-aid approach as I call it, of -- for the reliability of the existing lines that we have, you said it was 10 years?

MS. GRABEL: $10 million will get us to the year 2030.

MEMBER MERCER: 2030. Okay. So it's six years.

What about if you do the brand-new, this new project that you're asking for, how many years before you have to upgrade it?

MR. LINDSEY: Member Mercer, we're anticipating this project to support Midtown really for the life of the facilities.

And so one of -- that's a really hard thing to say in normal circumstances. But one of the advantages that we in having a lot of confidence in that statement is we conducted a saturation study a number of years ago in 2018, and that looked at what the loading of

our -- of this area would be at full buildout, meaning every lot built, everything anticipated that could be built was built.

And this line and substation, specifically the line supported that growth. And so it's hard to give you a specific year of it's going to be ten years, 20 years, it's going to be well past that time frame. And you're looking at a system that we're looking at replacing that's 50 to 70 years old. This new transmission line and substation will support the area that long.

MEMBER MERCER: So I was trying to get to it's going to be more than six years.

MR. LINDSEY: Absolutely, yes.

MEMBER MERCER: Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Perhaps I missed something, but this is the first time that I have become aware of the fact that the substation requires a special exception. I know that we have jurisdiction over the substation, but because the line, no substation, no line.

I'm curious what the status is of TEP getting the authorizations that they need to allow them to build the substation in that location.

MS. GRABEL: Member Little, I can address that real quickly. This is the exhibit that I went through with the City yesterday. We have applied for the special exception for the Vine Substation.

But the zoning administrator issued an order that said that we would not get that determination until we had a route for this project.

CHMN STAFFORD: And that was Exhibit TEP --

MS. HILL: UAZ, I believe it's 23. It might be 22.

CHMN STAFFORD: Let's look and see.

MEMBER GOLD: So by implication -- Mr. Chairman -- so by implication if you get a route you can get permission to do it, of course he would have just said no, I'm not giving you permission whether you have a route or not.

MS. GRABEL: That is true, yes, Member Gold.

MEMBER GOLD: The intimation is yes, once we give them a route they'll get this because they realize they need the power.

MS. HILL: Member Gold, I think we can't read anything into anything, I think the City has made that abundantly clear, but we can agree that he didn't just say no, and that it's very clear and it is

Exhibit UAZ Exhibit 22, the line -- I mean, it actually says until we know where the line is this is premature, something to that effect.

MEMBER GOLD: Thank you. Mr. Chairman, just a question.

What is our status in the hierarchy when we make a recommendation that differs from -- what is that guy called again?

MS. HILL: Zoning examiner.

MEMBER GOLD: The zoning guy, we make a recommendation, can he overrule it and say no, or can we overrule him and say yes?

CHMN STAFFORD: We -- the Line Siting Committee does not site substations.

MEMBER GOLD: We have no jurisdiction over substations.

CHMN STAFFORD: No, the statute exempts substations from approval from this Committee and the Commission, CECs are required for plants, transmission lines, and switchyard, but substations are specifically excluded in the statutory definition.

MEMBER GOLD: So who has authority over the --

CHMN STAFFORD: The City.

MEMBER GOLD: The City of Tucson. Now I

understand the boondoggle. Thank you.

CHMN STAFFORD: I wanted to make sure I get this nailed down. The University Area Plan does require undergrounding for all routes?

MS. HILL: Where possible.

CHMN STAFFORD: It says where possible?

MS. HILL: It says if possible or where possible.

MR. LUSK: So it does, Chair.

CHMN STAFFORD: Okay. All right. So if possible. That's a little ambiguous, don't you think?

MS. GRABEL: Chairman Stafford, we think so. We just want the City to confirm as much and we haven't been able to get the commitment out of the City.

CHMN STAFFORD: Okay. So that's why you're asking for the special -- for the determination of unreasonably restrictive for that specific regulation then, the university plan.

MS. GRABEL: Correct, as well as the Gateway Corridor Zone.

CHMN STAFFORD: Okay. All right. I just want to make sure, because I had notes that said if, and it's kind of a big if, and so I hadn't heard a definitive answer either way whether it was going to require or not require underground. So I had to make sure I had the

correct understanding of that before we ended testimony.

MR. LUSK: Can I follow up on that --

CHMN STAFFORD: Sure.

MR. LUSK: -- Mr. Chair?

So Mr. Bryner, just so I understand your position which I think you've represented well, your concern is how in what way or relationship the University Area Plan applies within the Gateway Corridor Zone at the crossings?

MR. BRYNER: So it's -- well, it would be, that would be the --

MR. LUSK: For the proposed route. Sorry. I'm sorry. Go ahead.

MR. BRYNER: So, yeah, the tie that we would have that would implicate the zoning examiner getting involved would be at the Gateway Corridors, the special exceptions.

And to the extent that they then -- well, one, whether or not they decide to grant the special exception; but two, would be how far they may decide that determination may go. And some of the language we've seen in the special exception for the Vine Substation give us pause to think they may try to extend beyond the affected area.

MR. LUSK: And that's within the Exhibit 22

you --

MR. BRYNER: I think it was UAZ-23.

MR. LUSK: UAZ-22. Mr. Dempsey is saying is it's 22. I don't -- I won't quibble.

CHMN STAFFORD: I have the exhibit list here, and it says UAZ-22 is the zoning examiner's decision on TEP special exception permit dated May 2021.

MR. LUSK: What's the specific language that you're talking about? Sure. Take your time.

While you're doing that, Mr. Bryner, I'm going to ask Mr. Lindsey if -- just to sort of tie off our previous discussion.

Is it my understanding that you have -- you do not wish to compare the costs of complying with the Gateway Corridor Zone just at the perpendicular crossings with having to proceed without the route entirely? Is that -- are you comfortable with that? That position?

MR. LINDSEY: Mr. Lusk, can you restate that question?

MR. LUSK: Sure. I think what I heard from you is that you're not comfortable comparing the costs of complying with the Gateway Corridor Zone at its perpendicular crossings for your preferred route with the costs of moving forward without the route entirely? Is that your position?

MR. LINDSEY: Comparing the costs to underground the gateway --

MS. GRABEL: Can you ask them to clarify the question? I didn't understand it and I don't think my witness does either.

CHMN STAFFORD: I think I get what Mr. Lusk is getting at. Because when you're looking at the cost comparison we're talking about, let's see, I think, is it addressed in TEP? For example -- let's see here. No. Okay. I see. Okay.

So I think the question I think Mr. Lusk is trying to make is that we're looking at the costs of undergrounding large sections of the line as compared to overheading the entire section of the line. But I think what he wants to see is a comparison between total overhead and then overhead with only undergrounding at the Gateway Corridors.

MR. LUSK: Correct.

CHMN STAFFORD: Without -- without special, if they -- if they do not get the special exception.

MR. LUSK: That's correct. I think that was the concern.

CHMN STAFFORD: Okay. That's -- to my recollection TEP did not present specific testimony on the costs of three below grade crossings, undergroundings

at just the three intersections implicated by the Gateway Corridor Zone. Is that the case? Is that -- or did you -- I mean, what I've been hearing is Mr. Jocham and Mr. Lusk kind of ballparking it based on what the costs are to do an undergrounding at an intersection in addition to -- so what that additional costs would be if the rest of the project was constructed overhead.

So, but I don't think the applicant prepared specific testimony on just what it would cost to underground at three roads.

Is that correct, Ms. Grabel?

MS. GRABEL: Mr. Chairman, that is correct. I think Mr. Jocham has a rough estimate that he's calculated sitting here today, although I will suggest, again, that is not the worst-case scenario that we're preparing for with our interactions with the City because we do think the University Area Plan is implicated.

CHMN STAFFORD: Right.

MS. GRABEL: So --

CHMN STAFFORD: But see -- okay, the issue with -- okay. Let me make sure I understand this. Now, assuming that there was no University Area Plan, the under -- under the Gateway Corridor Zone would require, unless you got a special exception, TEP to underground the three crossings, the one at -- from --and we're

talking here -- we're talking about Route B-4. Specifically, I guess it's -- oh, no, yes. No. In Route B, actually all the routes that they'd cross, what is that, the upper one here that's not labeled? I'm looking at --

MR. BRYNER: Oracle.

CHMN STAFFORD: Oracle. Okay. Right. So there would be Oracle, there would be Broadway, and Kino Parkway. Ignoring the University Area Plan, the Gateway -- the Gateway Corridor would require undergrounding for that -- for the line to cross under those intersections.

Is that correct, Mr. Bryner? Mr. Lindsey?

MR. BRYNER: Yes.

CHMN STAFFORD: Okay. All right. Now, you were pretty confident that you could get two of those. But the big one I believe was the crossing of Broadway and the University Area Plan; correct?

MR. BRYNER: Correct.

CHMN STAFFORD: Now, is the concern that the City would require undergrounding for that crossing, or that it would require -- okay. We were just talking about just -- so it would just be that one crossing that you would have to do -- say that you're less likely to get a special exception for.

MR. BRYNER: That's the one that causes us concern.

CHMN STAFFORD: Okay. And if the University Area Plan was found to be unduly burdensome, then there would not be the basis to deny the special exception, would there? I guess it's more of a legal question for Ms. Grabel.

MS. GRABEL: Will you repeat the question, Chairman Stafford?

CHMN STAFFORD: Okay. So you guys are confident that you can get -- that the City would grant a special exception for the Gateway Corridor for the perpendicular crossings except for the one at Broadway, because of the concern that the University Area Plan would be interpreted to interpret -- to require undergrounding and they would deny it on that basis.

MS. GRABEL: I'm not sure I would say we're confident. I know that's Mr. Bryner's testimony. I think he may be confident. I think TEP may be less so, but yes, generally that is accurate.

CHMN STAFFORD: Well, let's define confidence more likely than not. As opposed to beyond a reasonable doubt or 80 percent, 75 percent. We're saying it's more likely than not. That's -- that's the level of confidence, or is it higher than that, Mr. Bryner?

MS. GRABEL: Let's put it this -- oh, sorry. Go ahead.

MR. BRYNER: I've never been through it before. But I'd like to think that reason will prevail and that when we apply they would see some of the logic that we've talked about that having two large structures on either side of the road is more obtrusive than a single crossing.

CHMN STAFFORD: Yeah, and like -- I think Member Gold and I are inclined to agree with you. Because if you're spanning it with the aboveground structure the structures could be way further conceivably 300 feet away from the road on the other side as opposed to having something that's there.

But -- so I mean -- but, okay. So my -- that's the -- that's the one that I was concerned about. So, again, since City did help work with you to develop that special exception process, it would seem -- I don't want to say silly -- but it would seem counterproductive to have a process and then just deny, deny you a special exception through that process for the very thing it was designed to address.

So there's that.

But so, I guess what I'm getting to now is that if the Committee were to find that the University

Area Plan was unduly burdensome, but not the Gateway Corridor restriction, would that make you feel more confident about getting the special exception for the Broadway Boulevard crossing?

MR. BRYNER: So again, I think that's probably a legal question. If you want my thoughts I can give them, but I think they'd be better to respond.

CHMN STAFFORD: Right. And that was -- I guess that was the question that I was rephrasing to you, Ms. Grabel.

MS. GRABEL: Yes. Thank you, Chairman Stafford. I definitely think that would give TEP greater comfort that we would not have to build the line belowground in the University Area Plan.

CHMN STAFFORD: Okay. And that -- because if that is the case, then you get to -- you have to underground everything from north of Broadway Road and south of Grant Road.

You're -- I guess depending on where the border of that is on Grant Road, if you put it on -- it would vary depending -- was it -- did they extend all the way to the southern edge right-of-way of Grant Road or stop short of that, or did it go to the middle of the road or the far side? And that's -- that seems to be a fact issue that is still in doubt; correct?

MS. GRABEL: Yes, Chairman Stafford, that's correct. So, I mean -- I'm going to let Mr. Bryner address your question with respect to where the line would likely go.

CHMN STAFFORD: Okay.

MR. BRYNER: So no -- well, let me answer the one question, though, because Mr. Lusk did look into that, and it sounds like the University Area Plan would go to essentially the center line of the roads around it, so the center line of Grant, center line of Broadway.

Now I forget the question I was supposed to address. Sorry.

CHMN STAFFORD: I think that was it.

MS. GRABEL: That was it.

CHMN STAFFORD: It was what was the edges of the University Area Plan.

Okay. All right. Well, I think that addresses my questions. Mr. Lusk, did you have any further questions?

MR. LUSK: Yeah, I just wanted to wrap it up. So if I understand, Mr. Bryner, the main issue that you have in terms of the regulations that we discussed is with the University Area Plan.

MR. BRYNER: Yes.

MR. LUSK: And in terms of complying with

the Gateway Corridor Zone irrespective of the University Area Plan, you're confident you're able to do that?

MS. GRABEL: I'm going to object again to that. We're using the word "confident," and I don't think that's what Mr. Bryner has said.

CHMN STAFFORD: Right. I think confidence.

MR. LUSK: Let me rephrase.

CHMN STAFFORD: Yes. Thank you.

MR. LUSK: You're able to -- TEP's able to participate in the process for a special exception process for those within the Gateway Corridor Zone for your preferred route?

MR. BRYNER: Yes, we would.

MR. LUSK: And, in fact, I'll reiterate it. I know we've already talked about it, but you participated in the crafting of that special exception process?

MR. BRYNER: Myself personally, no, but TEP.

MR. LUSK: TEP. Yes. As an entity. Thank you.

CHMN STAFFORD: Does that conclude your questions?

MR. LUSK: I think it does.

CHMN STAFFORD: All right.

MS. GRABEL: Mr. Chairman, one quick thing. Sorry. I know you hate this. The Committee did ask yesterday for information regarding the amounts that TEP has paid the City in franchise fees over the past few years, and we do have that information available for you.

CHMN STAFFORD: All right. Please provide that. Is it coming from Mr. Bryner?

MS. GRABEL: I think it's coming from Mr. Lindsey.

CHMN STAFFORD: Mr. Lindsey. Okay.

MS. GRABEL: This is actually both the franchise fee and payments of utility taxes.

CHMN STAFFORD: Okay.

MR. LINDSEY: So Chairman Stafford, walking through these numbers for 2022, the utility tax -- are we giving specifics?

MS. GRABEL: Yes.

MR. LINDSEY: $13,912,586.65. Did I get that right? Okay.

The Tucson franchise, it's not the same but it's close. So $13,947,374.84.

CHMN STAFFORD: So all told, approximately 27, 28 million. Closer to 28 million.

MR. LINDSEY: Yes, sir.

CHMN STAFFORD: That's me doing math in my

head, so that's some significant rounding going on.

MR. LINDSEY: Mr. Chairman, you're there.

CHMN STAFFORD: Okay.

MR. LINDSEY: So we've got '21 as well if you'd like it.

MS. GRABEL: We have '20 through year to date.

CHMN STAFFORD: Okay. What was -- you just gave '20 before?

MR. LINDSEY: That was 2022.

CHMN STAFFORD: Okay. And that's the most recent year?

MR. LINDSEY: We -- most recent full year is last year, so I do have 2023. But Mr. Bakken testified to the approximates, which are pretty well spot on at 15 million apiece. So 15 million for utility tax and another 15 for Tucson franchise.

CHMN STAFFORD: About 30 million last year.

MR. LINDSEY: Correct.

CHMN STAFFORD: 28 the prior year. And then --

MR. LINDSEY: I'll give -- Mr. Chair, I'll give you a general for '21. So we're right around 13 million for both. So 26 million total for '21.

MS. GRABEL: And how about for 2020? I'm

sorry, not 2020. '24 year to date.

MR. LINDSEY: Okay. So I've got '24 year to date, we are -- which ones are we going with, Clark -- okay.

So the tax is roughly 5.6 million. And the franchise is roughly 3.3 million. And we're calling this year to date, but I know there's a difference. The reason these numbers aren't spot on like -- or very similar, like previous years is we collect or we're reporting in the spreadsheet taxes on a monthly basis.

And franchise fee, we've got a collection that's identified in March. So if we were to -- this only gets us through May of the year, so if we were to look at this in another month and had updated data, I would assume they're tracking similar to previous years.

CHMN STAFFORD: Right. Because, again, math is not my specialty, but just ballparking, if you paid 30 million the previous year I'd expect you to be about 7 and a half million deep on each of them in July of this year.

MR. LINDSEY: I would agree and we only have data through May --

CHMN STAFFORD: Okay.

MR. LINDSEY: -- of this year.

CHMN STAFFORD: All right. I think

that's -- whose question was that? From the Committee?

MEMBER HILL: I have a different question but I did not ask that question.

CHMN STAFFORD: And that money goes to the City to spend as they see fit. They may have some restrictions on how they do it, but that's moneys paid to the City that it uses for what it decides to.

MEMBER HILL: I was going to ask a question along the lines, Ms. Hill indicated that the TEP doesn't take issue, but she wasn't under oath so I was going to ask the panel.

Do you take issue with how the City spends those franchise fees around public services, public safety, those kinds of things? Like that's -- the TEP doesn't have an issue with how those are expended?

MR. LINDSEY: Member Hill, I believe Mr. Bakken spoke to that very briefly. I would defer to his testimony especially since he's my boss. But, yes, I agree with you, we do not take issue.

MEMBER HILL: Thank you. I only ask the question because Ms. Hill had mentioned the position of the City but wasn't under oath, so.

CHMN STAFFORD: All right. Mr. Dempsey.

MR. DEMPSEY: Yes, I have a couple of questions. Mr. Lindsey, I just want to clean a few

things up here, things that are confusing me.

Mr. Robinson -- is that right? Mr. Robinson. I -- you testified just I guess a couple of hours ago now about distribution being only one-inch-wide -- or one-foot-wide trench. I don't remember him saying anything that small.

These are my notes, I apologize, but I have here minimum width is two feet and the minimum depth is 42 inches. Was he incorrect?

MR. LINDSEY: So Mr. Dempsey, I pulled information from our service requirements for single six-inch conduit installation.

So that would be one foot width minimum, 48 inches bottom of trench. So I don't think that's very inconsistent with what Mr. Robinson mentioned. I believe, I'm going back in memory here, he was talking about typically we're looking to put spare conduits in when we can. That's going to expand the trench. And top of conduit minimum would be 42 inches. That's the six-inch difference between 48 and 42, so I think we're very similar.

I was attempting to compare minimums to minimums.

MR. DEMPSEY: Okay. So does the same reference material you were just looking at say what the

width is for? Because it sounded to me, like Mr. Robinson said, you'd put in two, it's not going to be one. It's going to be two. Is that -- and he also mentioned concrete backfill, so I guess you're -- there's another standard that you're not mentioning.

MR. LINDSEY: So real -- Mr. Dempsey, what I was speaking to was a minimum-to-minimum comparison. What we show here in our service requirement 215 are those figures.

MR. DEMPSEY: So what -- could you tell me what it says for the maximum?

MR. LINDSEY: There's no reference to maximum on the trench.

MR. DEMPSEY: Is this public record?

MR. LINDSEY: Yes, sir.

CHMN STAFFORD: What exhibit are we talking about?

MR. LINDSEY: I don't -- Mr. Chair, I don't believe this is an exhibit. It's just a reference to an online service requirements for TEP.

CHMN STAFFORD: Oh, okay.

MR. DEMPSEY: Okay. So, all right, so it's the minimum, there's a maximum, there's potentially concrete backfill, there's wider trench, deeper trench, potentially if there's lots of communication lines; is

that correct?

MR. LINDSEY: Yes, I would agree with that.

MR. DEMPSEY: Okay. Thanks.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Having worked many, many years ago in some trenching, there's also the trench box that is necessary and I think that's part of what Mr. Robinson spoke to the other day. That there was a one-foot-wide trench that has to be used, but then a trench box that sits inside of it to keep cave-ins and safety and such as that.

I certainly don't mean to change the testimony here at all. But it's something I believe that the Committee might want to remember.

MR. DEMPSEY: Thanks. I guess this is for Mr. Jocham, or any of you can answer. It's -- and this may have been stated and I apologize if I just missed it, it just made me think of it. Will the overhead line have two cables per phase?

MR. JOCHAM: I know the answer but I'll have TEP answer because I was not involved in the overhead.

MR. BRYNER: I've just got to say this because I want to. So we build overhead and that's all

we do. So we're the experts at the overhead.

But -- so the overhead line will be one cable, one -- one conductor per phase, we call it conductor --

MR. DEMPSEY: Right. Right.

MR. BRYNER: -- versus cable underground.

MR. DEMPSEY: Now, even if you have to go underneath, jack and bore?

MR. JOCHAM: Even if you would have a trenchless installation --

MR. DEMPSEY: Right.

MR. JOCHAM: -- so if you have to go underground it would still have to be two cables per phase for the underground.

MR. DEMPSEY: So then you just go two to one at the riser or whatever?

MR. JOCHAM: You marry the cables at the riser; correct.

MR. DEMPSEY: All right. Thank you. All right. So Mr. Lindsey, I want to -- I wasn't here under all the testimony so I just want to be clear here. You said if this project is not done by 2027 it is another 10 million, if it's not done by 2030 it is another $50 million or so. Is that what I heard?

MR. LINDSEY: Roughly, Mr. Dempsey. So as

we spoke last week and again today, we are approximating 9.6 million post-'27. And when we talk post-2030 that's where the 50-plus million comes in. Just know -- yeah, that's the 50 for us to look at upgrades to the existing --

MR. DEMPSEY: So it's fair to say that if this fight -- if there's a legal fight past 2030 it's going to cost $60 million to TEP and ratepayers?

If this project's not done, I mean to say if this project is not done by 2030, it's going to cost $60 million to ratepayers?

MR. LINDSEY: So if this project's never built, that's the scope of cost we're looking at, yes. So specifically when the 50-plus million spend is anticipated, we have not looked at it in that detail. It's post-2030.

MR. DEMPSEY: Okay. So $50 million post-2030, not right at 2030?

MR. LINDSEY: Correct.

MR. DEMPSEY: Okay. So it could be maybe less than that or --

MR. LINDSEY: I wouldn't anticipate that before 2030.

MR. DEMPSEY: Okay. Thank you.

CHMN STAFFORD: I got to think you'd have

the try to file this application again between now and then, I mean, this is this second time, second run at this one so I think you'd have to, you know, third time be the charm; right?

MR. LINDSEY: Mr. Chairman, we do not want to spend that 30 million on the old system. So we would, if it doesn't get approved, yeah, that is not our wish.

We want to build this project. We put a tremendous amount of effort. We see so much value for the community here. We want to build this thing.

MR. DEMPSEY: And we want you to. We just want you to build it a different way. But that's -- so the last question. I don't know if -- who to direct this question at, but in reviewing the revised CEC you did not insert a condition about undergrounding distribution lines. Is that forthcoming?

MS. GRABEL: Mr. Chairman, so we have not asserted a condition about undergrounding, but that's certainly a commitment of this project, and if the Committee wanted to insert that as a condition, we wouldn't object.

MR. DEMPSEY: Well --

CHMN STAFFORD: It very well -- if they file what they file, and they're not going to file it between now and the time they give their closing, but I

do have a note about the conditions they listed on one of the specific slides.

And I can assure you that's something that the Committee will have a discussion of when we discuss conditions.

MS. GRABEL: And actually, Chairman Stafford, now that I'm thinking about it, in the finding of facts that we've asked you to consider, we do include a finding of fact about the net reduction in utility poles that will result from this project. So a net reduction of 32, and so that would by implication commit TEP to, you know, undergrounding the existing distribution infrastructure.

MR. DEMPSEY: Would you object to having a condition on undergrounding distribution lines?

MS. GRABEL: No.

MR. DEMPSEY: In a CEC. No?

MS. GRABEL: No.

MR. DEMPSEY: Thank you. That's it.

MEMBER KRYDER: And Ms. Grabel, just for confirmation, that was over the next ten years following the project, not in the immediate; correct?

MS. GRABEL: A portion of it will happen in the immediate future, and then the second will be as the rest of the system is retired.

CHMN STAFFORD: All right. Does that conclude your questions? Ms. Grabel, Ms. Hill, any reredirect here? Because I think we're --

MS. GRABEL: I think we're tired.

CHMN STAFFORD: Yeah, I think so, too. I think we're -- I don't think we're going to begin with closings today. I think it's a good place to pick up tomorrow morning. What is the anticipated duration of your closing, Ms. Grabel?

MS. GRABEL: I would say roughly 25 minutes at max.

CHMN STAFFORD: Oh, okay. I was expecting 30 to 60 minutes. But, yeah, okay, that's even better.

Ms. De Blasi, same question.

MS. DE BLASI: I anticipate about maybe 10 minutes.

CHMN STAFFORD: Okay. Mr. Lusk?

MR. LUSK: About 20.

CHMN STAFFORD: And Mr. Dempsey.

MR. DEMPSEY: Just -- I would say just over three hours. I would say 10 to 15 minutes.

CHMN STAFFORD: Okay. Thank you. All right. Well, that will be it for today, and we will be back in the morning at nine, and we'll start with closing arguments from the applicant. I guess we'll -- in the

morning if we realize there's any preliminary issues to address or resolve prior to the commencement of closing arguments, we'll deal with that. I don't anticipate any right now. But tomorrow's a new day, and we may wake to find circumstances that we had not anticipated today so with that.

MR. LUSK: Mr. Chairman, just real quickly.

CHMN STAFFORD: Oh, wow, that was close, Mr. Lusk.

MR. LUSK: You were very close. We'll have the opportunity to file proposed CECs tomorrow morning as well?

CHMN STAFFORD: Yes, because we haven't started closing yet.

MR. LUSK: That's what I figured.

CHMN STAFFORD: I think if the City had -- you don't have to do an entire CEC, if you had -- you could come with exhibits for proposed conditions that you would like to see or amendments to what the applicant has proposed, so you don't have to come in with a -- I don't know, how many page document is the CEC now, Ms. Grabel?

MS. GRABEL: Oh, I don't know. It's long.

CHMN STAFFORD: Yeah. You don't need to produce the whole thing. You can just -- if you have specific language you would like to see adopted as part

of it, and potentially where you'd want to see it inserted or where you would like to see it replaced, you can bring, and that goes to the other parties as well, Ms. De Blasi, Mr. Dempsey.

Oh, yeah, Mr. Dempsey, your hard copies of exhibits, have I gotten them all yet? I see one binder.

MR. DEMPSEY: You have them except for the slides which I'm going to print tonight that had the extra slide. I'll add them.

CHMN STAFFORD: The binder I have is 31 to 62.

MR. DEMPSEY: I have the other one over here.

CHMN STAFFORD: Okay. All right. Thank you.

With that, we stand in recess until nine a.m. tomorrow.

(Proceedings recessed at 4:51 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-362

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 18, 2024

Filed: July 24, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME IX
(Pages 1865 through 2081)

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ACC - Docket Control - Received 7/24/2024 3:41 PM
ACC - Docket Control - Docketed 7/24/2024 4:19 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789
VOLUME IV	July 11, 2024	Pages 790 to 857
VOLUME V	July 12, 2024	Pages 858 to 1044
VOLUME VI	July 15, 2024	Pages 1045 to 1324
VOLUME VII	July 16, 2024	Pages 1325 to 1558
VOLUME VIII	July 17, 2024	Pages 1559 to 1864
VOLUME IX	July 18, 2024	Pages 1865 to 2081

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719
Index to the Tour	
Stop 1	801
Stop 2	813
Stop 3	828
Stop 4	833
Stop 5	845
Stop 6	847

//

INDEX TO PROCEEDINGS (continued)

ITEM	PAGE
CLOSING STATEMENTS	
Applicant by Ms. Grabel	1882
Banner Health by Ms. De Blasi	1896
City of Tucson by Mr. Lusk	1906
Underground Arizona by Mr. Dempsey	1931
Deliberations	1942

INDEX TO EXAMINATIONS

WITNESSES	PAGE
Clark Bryner (Recalled) - for the applicant	
Testimony Given	1880

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	1225
TEP-2	Map of Proposed Project	21	1225
TEP-3	Testimony of Clark Bryner	52	1225
TEP-4	Testimony of Chris Lindsey	54	1225
TEP-5	Testimony of Erik Bakken	57	1225
TEP-6	Testimony Summary of Larry Robinson	386	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-7	Testimony Summary of Jason Jocham	948	1225
TEP-8	Witness Presentation	49	1225
TEP-9	TEP Ten-Year Plans	58	1225
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	1225
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	1225
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	1225
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	1225
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	1225
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	1225
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	1225
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	1225
TEP-10	Exhibits Regarding Notice Requirements	58	1225
TEP-10A	Notice of Hearing	58	1225
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	1225
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	1225
TEP-10E	Map of Notice of Hearing Sign Locations	58	1225
TEP-10F	Photographs of Sign Placement	58	1225
TEP-10G	Example of Sign Contents	58	1225
TEP-10H	Notice of Service to Affected Jurisdictions	58	1225
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	1225
TEP-11	Receipt of Filing Fee	58	1225
TEP-12	Virtual Tour	504	1225
TEP-13	Tour Itinerary/Script/Protocol	254	1225
TEP-14	Summary of Public Outreach	929	1225
TEP-15	Proposed Certificate of Environmental Compatibility	1225	1225
TEP-16	Undergrounding Presentation	950	1225
TEP-17	Undergrounding Cost Analysis Study	948	1225
TEP-18	Testimony Summary of Sara Baker	--	Not Utilized
TEP-19	Property Valuation Study	1573	1574
TEP-20	Additional Project Comments	929	1225
TEP-21	Letter of Support from University of Arizona	368	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-22	Letter of Support from Tucson Metro Chamber	930	1225
TEP-23	Letter of Support from Southern Arizona Leadership Council	931	1225
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	1225
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	1225
TEP-26	Gateway Corridor Zone Overlay Map	872	1225
TEP-27	National Grid Report re Undergrounding high voltage electricity transmission lines	1035	1225
TEP-28	City of Tucson Chicanes Examples	936	1225
TEP-29	Letter of Support from Boys & Girls Clubs of Tucson	1225	1225
TEP-30	Supplemental Undergrounding Cost Analysis	1012	1225
TEP-31	Updated Project Cost Summary and Comparison	1057	1225
TEP-32	Updated Corridor Map for Preferred Route	1211	1225
TEP-33	Tucson Sentinel News Article re Street	1197	1225
TEP-34	Excerpt from SRP High Tech Interconnection Project	1443	1575
TEP-35	University Area Plan	1443	1444

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-36	Alternative Proposed Certificate of Environmental Compatibility	1804	1805
BUMCT-1	Testimony Summary of Mark Barkenbush	37	1322
BUMCT-2	Witness Presentation	37	1322
COT-1	SARGENT & LUNDY UNDERGROUND COST ANALYSIS Report SL-015392	1405	1439
COT-2	Testimony Summary of Mark Castro	1405	1439
COT-3	CITY OF TUCSON MAJOR STREETS AND ROUTES PLAN	1405	1439
COT-4	City of Tucson Election Official Voter information re: Proposition 412 (English and Spanish Version)	1405	1439
COT-5	City of Tucson Major Streets and Routes	1345	1439
COT-6	Link to Plan Tucson: City of Tucson General & Sustainability Plan (2013)	1405	1439
COT-7	Tucson Electric Power vs. City of Tucson and City of Tucson Board of Adjustment Under Advisement Ruling Pima County Superior Court Case No. C20235484	1405	1439
COT-8	WITNESS PRESENTATION MARK CASTRO	1405	1439
COT-9	Statement of Karin Uhlich, Councilmember Ward 6	1575	1575

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
COT-10	Statement of Kevin Dahl, Councilmember Ward 3	1575	1575
COT-11	Statement of Richard Fimbres, Councilmember Ward 5	1879	1879
UAZ-1	Sargent & Lundy Report SL-015392 Revision 0 Report	1461	1537
UAZ-2	Sargent & Lundy Report SL-015392 Revision 7 Final Report	1537	1537
UAZ-3	Excerpts of TEP CEC Application from Line Siting Case 192	1537	1537
UAZ-4	Excerpts of SRP Testimony from Line Siting Case 195	1537	1537
UAZ-5	Excerpts of SRP Exhibits from Line Siting Case 195	1462	1537
UAZ-6	Excerpts of Chandler Exhibits from Line Siting Case 195	1537	1537
UAZ-7	Excerpts of APS Testimony from Line Siting Case 198	1537	1537
UAZ-8	Excerpts of APS Exhibits from Line Siting Case 198	1208	1537
UAZ-9	Excerpt of SRP District Board Meeting Notice & Agenda 3/28/2024	1455	1537
UAZ-10	APS Central Phoenix Project Website	1537	1537
UAZ-11	Underground Arizona Website	1525	1537
UAZ-12	PDI2 Utility Undergrounding Lifecycle Cost Guide	1537	1537

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-13	S&C Electric Company: The Changing Economics of Utility Investment in Undergrounding	1480	1537
UAZ-14	Utility Dive: As wildfires losses mount, will commercial insurers decline to cover utilities?	1480	1537
UAZ-15	EIA Electric Power Annual Report, Table 11.1: Reliability Metrics for the U.S. Distribution System	1481	1537
UAZ-16	10th International Conference on Insulated Power Cables: Can cables last 100 years?	1174	1537
UAZ-17	TEP 2023 Annual Report 10K, Note 4.	1537	1537
UAZ-18	UMC Banner Letter of Opposition	1538	Not Utilized
UAZ-19	Not Utilized (See TEP-35)	1433	Not Utilized
UAZ-20	TEP-University of Arizona Special Contract	1538	Not Utilized
UAZ-21	TEP-City of Tucson Franchise Agreement	1011	1540
UAZ-22	Zoning Examiner's Decision on TEP Special Exception Permit	1426	1540
UAZ-23	Zoning Administrator's Determination on Gateway Corridor	1540	Not Utilized
UAZ-24	University Area Plan Excerpts	1540	1541

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-25	APS Tempe Town Lake 230 kV OH/UG Conversion Project Slides	1540	Not Utilized
UAZ-26	Blank	1540	Not Utilized
UAZ-27	Plan Tucson Goals & Policies	1542	Not Utilized
UAZ-28	Plan Tucson Chapter 3	1542	Not Utilized
UAZ-29	Timeline of Events by Underground Arizona	1542	Not Utilized
UAZ-30	Arizona Revised Statutes 40-360.06	1542	Not Admitted
UAZ-31	Arizona Revised Statutes 48-621	1547	Not Utilized
UAZ-32	Streetscape Photos by E. Alster	1547	Not Utilized
UAZ-33	Visit Tucson Annual Report	1547	Not Utilized
UAZ-34	TEP 2023 Annual Report 10K Excerpts	1543	1544
UAZ-35	TEP 2020 Annual Report 10K, Cash Flow Statement	1543	1544
UAZ-36	APS 2023 FERC Form 1 Excerpts	1455	1544
UAZ-37	APS 2022 FERC Form 1 Excerpts	1462	1544
UAZ-38	APS 2021 FERC Form 1 Excerpts	1462	1544
UAZ-39	APS 2020 FERC Form 1 Excerpts	1462	1544
UAZ-40	APS 2019 FERC Form 1 Excerpts	1462	1544

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-41	APS 2018 FERC Form 1 Excerpts	1462	1544
UAZ-42	Excerpt of APS Exhibits from Line Siting Case 169	1543	1544
UAZ-43	UNS Electric Study: Appendix D: Property Values effects from High Voltage Overhead Transmission Line: Study Methodology, Analysis, and Conclusions	1485	1544
UAZ-44	Tucson.com: Tucson City Council approves 20-story tower at Speedway and Campbell	1489	1544
UAZ-45	KGUN9: Apartments, retail development coming to edge of UArizona campus	1489	1544
UAZ-46	Tucson.com: A new 10-story student housing complex is going up in Tucson	1489	1544
UAZ-47	Utility Dive: Arizona regulators OK 10% Tucson Electric Power rate increase, eliminate EV incentive	1478	1544
UAZ-48	Tucson.com: Tucson Electric Power's $$99.5M rate increase proposal hits residential customers hardest	1478	1544
UAZ-49	TEP.com: Investing in Our Community	1547	Not Utilized
UAZ-50	TEP.com: Ratepayer Assistance	1547	Not Utilized
UAZ-51	FINRA Series 86 & 87 lines Examination Content	1451	1544

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INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-52	Arizona Real Estate Broker lines Examination Content	1547	Not Utilized
UAZ-53	APS 2023 Ten Year Transmission Plan Excerpts	1544	1544
UAZ-54	Excerpts of TEP CEC App Case 192, pages 11-17, 867-869	1461	1545
UAZ-55	Southwire 138kV and 230kV XLPE Product Brochures	1545	Not Utilized
UAZ-56	Study: Underground power lines can be the least cost option	1480	1547
UAZ-57	APS vs. Town of Paradise Valley (1980), Arizona Supreme Court	1545	Not Utilized
UAZ-58	Excerpts of SRP Exhibits from Line Siting Case 175	1462	1547
UAZ-59	Tables of Sargent & Lundy and Comparables	1186	Not Utilized
UAZ-60	TEP Reliability Press Release	1546	Not Utilized
UAZ-61	Excerpts of APS Testimony FORM Line Siting Case 196	1546	1547
UAZ-62	Witness Presentation	1450	1547

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:10 a.m. on July 18, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns (via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public (via videoconference)
DAVE RICHINS, General Public
JOHN Gold, General Public

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CHMN STAFFORD: Let's go back on the record. Before we start with closing arguments, I think the City of Tucson has another exhibit, another letter from Ward 5.

MR. LUSK: That's correct, Mr. Chair. Again, that goes to Member Gold's question about the city leadership. City doesn't plan to refer to it or anything. That was just for the informational.

CHMN STAFFORD: All right. Will you stipulate to its admission, Ms. Grabel?

MS. GRABEL: I do, yes.

CHMN STAFFORD: Mr. Dempsey and Ms. De Blasi?

MS. DE BLASI: Yes, that's fine.

MR. DEMPSEY: Yes.

CHMN STAFFORD: Okay. All right. City of Tucson number 11 is admitted.

(Exhibit COT-11 was admitted.)

MS. GRABEL: And, Mr. Chairman, before we begin closing statements, Mr. Lusk brought it to our attention that the Silverbell case that has been referenced frequently during this decision, there's some controversy over whether TEP was the applicant or the City was the applicant.

And he pulled that Decision, and it turns

out that TEP was the applicant in that case. So I just thought Mr. Bryner could perhaps go on the record just briefly and discuss the context of that and clarify the record.

CHMN STAFFORD: Certainly.

CLARK BRYNER (recalled),

called as a witness on behalf of Applicant, having been previously affirmed or sworn by the Chairman to speak the truth and nothing but the truth, testified as follows:

MR. BRYNER: You're not done with me yet.

So, yeah, just real, real, real quick. So, yeah, not going to argue that TEP, I'm looking at the application right now. It says, "Applicant: Tucson Electric Power, Kevin O'Brien." He's one of our -- or at the time he was one of our environmental and land use planners who filed the application for the Silverbell.

But I do want to give just a little bit of context on that. So Silverbell Road, it was a public improvement project. The City was widening, improving that road. Our 46kV facilities were in the way, but those 46kV facilities had been there prior to the road.

TEP had an easement for those facilities. We weren't in franchise. And so as a result it was the

responsibility of the City to pay the cost to relocate, be it overhead or underground.

So in the spirit of collaboration, TEP, the City, and the County worked on that together. The County did a lot of work, the City did a lot of work, and TEP agreed to file the application and do that work to further that process.

And so that's kind of how it worked out. I know it might not seem it, based on some of the testimony we've had, but we -- TEP is the electric utility provider in the community.

We do try to work with the City, the County, others to find solutions that work in everybody's interest. Sometimes it works out well. Sometimes it doesn't. I would say in this case, it worked out for the mutual benefit of all involved.

CHMN STAFFORD: Thank you, Mr. Bryner.

Any questions from the other parties on any cross?

MR. LUSK: None from the City.

CHMN STAFFORD: That's it, Ms. Grabel?

MS. GRABEL: That's it. Thank you, Chairman.

CHMN STAFFORD: Thank you, Mr. Bryner.

All right. With that, I believe we're

ready for closing arguments. Ms. Grabel.

MS. GRABEL: Thank you, Mr. Chairman, Committee members. As this Committee has witnessed over the past two weeks, the evidence is clear that the Midtown Reliability Project is critically needed to ensure the continued provision of safe and reliable electric service to TEP's customers.

The current 46kV system built in the 1950s and '60s -- remember the Jerry Mathers picture -- no longer meets the reliability and evolving energy needs of the City of Tucson.

Among other benefits, replacing that system with the Midtown Reliability Project improves distribution reliability for burying or retiring those old wooden poles that we all saw on the tour.

And also transmission reliability by creating a loop around Midtown Tucson that will provide a second source of power in the event of a transmission outage.

Remember the slides that we saw a week and a half ago now about the quick distribution and transmission outage restoration benefits that inure from this project.

Beyond reliability, the project will be engineered to meet today's energy needs, such as

accommodating not only the anticipated population growth in Midtown, but also the energy needs of new technologies such as residential solar and energy storage projects as well as electric vehicles.

So the record is clear that the Midtown Reliability Project is urgently needed.

In addition, Banner, the University of Arizona, and several members of the public support TEP's referred route, although any of our proposed routes can be built.

The real issue in this case is whether local laws or plans that might require undergrounding of the transmission line should be preempted by the State under A.R.S. 40-360(D).

The City of Tucson takes the position that the portions of the Midtown Reliability Project that run through an area covered by the Uniform Development Code's Gateway Corridor Zone are required to be constructed belowground.

Underground Arizona posited that TEP must construct the project belowground, not only in areas that are covered by the Gateway Corridor Zone but also in areas covered by other neighborhood and area plans. The most impactful of which to this project is the University Area Plan.

The City testified on Tuesday that unless TEP can successfully receive a variance from or a special exception to the Gateway Corridor requirement, and it declined to commit whether TEP could do so or whether the special exceptions might apply, TEP would not be relieved of the requirements of local ordinance.

In addition, because the fact finder in the special exception process would need to find as an initial matter that the route for which a special exception is sought also complies with an applicable area plan, even the preferred route is subject to the possibility that the City would find that the University Area Plan requires undergrounding and could incorporate that requirement as a condition into the special exception decision.

To the extent that Mr. Bryner may have been optimistic about receiving a special exception from the Gateway Corridor requirements at the beginning of this hearing, TEP's confidence about that eroded as the hearing continued.

Put simply, you heard the City's testimony. The City will not give TEP any comfort that it will approve the special exceptions needed to construct the preferred route aboveground on the needed time line.

TEP was made even less comfortable by the

City of Tucson's Exhibits 9 and 10, and now this morning 11, in which now three members of the city council expressed continued concerns about the selected routes, challenged the location of the Vine Substation, referred to what they view as the requirements of the University Area Plan, and suggested that other routes should be considered.

The evidence in the record is clear that in the end the City of Tucson controls its own special exception process and its outcome.

TEP cannot go back to the drawing board. TEP went through an extensive public engagement process for which this Committee congratulated Mr. Bryner and the team, and incorporated the public output that we received into the siting process.

We also built measures into the project such as the commitment to bury existing overhead transmission lines directly in response to the public's concerns.

TEP also examined every route imaginable as you heard Mr. Bryner testify. I feel like we drove every route imaginable when we went on the tour. And we've presented this Committee with numerous options with varying degrees of impact on the Gateway Corridor to this Committee.

As Mr. Lindsey testified, if we do not have approval to construct this line in order for it to be in service by 2027, we will have no choice but to just start rebuilding our existing 46kV system, and find other less reliable transmission solutions to solve the transmission reliability needs.

TEP's customers would pay more for that outcome than they would for this project, and would be deprived of the significant benefits of the current proposal, which among other things results in a reduction of 32 miles of overhead utility and communications infrastructure, and the significant enhancements to the TEP's ability to accommodate residential solar storage and electric vehicles.

This week the City has intimated that TEP could have started the special exceptions process earlier and moved that process in parallel with this, but that's just not realistic.

First, TEP's experience with the City through the special exception request it made previously for the Vine Substation taught it that the City wants an approved route before applying for a City permit associated with this line. Here's what the City said in the substation special request proceeding, and I'm quoting from UAZ's Exhibit 22.

Quote, this is the zoning examiner, "Given the uncertainty regarding the routes to be selected for the Kino to DMP transmission line project, and the uncertainty of the location of the power lines which will connect to the proposed Vine Substation, compliance with Plan Tucson and University Area Plan cannot be determined on the current record."

The zoning administrator then denied the application without prejudice, directing us to refile it after we've had a route selected. The City witness admitted on cross-examination that there's no real distinction between the request for a special exception for the substation, and the special exception for the transmission line that would change the zoning examiner's position. Indeed, the zoning examiner specifically asked for a final transmission line route before making any determination.

Given that ruling, it would not have made sense for TEP to apply for special exception for a route that had not yet been approved by the Committee.

Second, the special exceptions for the aboveground construction for a transmission line in the UDC were literally pioneered for this project.

When the city and TEP were collaboratively looking for funding solutions to the parts of the line

that the Gateway Corridor required to be undergrounded, that did not qualify for special exception.

When those attempts failed and the City won at the superior court level regarding the applicability of the Gateway Corridor to this project, TEP lost all leverage to prevail what is in the end a City decision from a City-driven process.

In that process TEP is at the mercy of the City and its constituents. That is of course completely natural in a political process. But what the City overlooks and what it is important for this Committee to remember, is that this project is one of only billions of dollars of projects that TEP needs to construct in the next five years.

It is that big picture that the Arizona Corporation Commission has to consider when TEP comes before it and seeks to move a project into rates in a rate case.

And a rate case is also a public process that can be persuaded by public input. As you'll recall from testimony, TEP has a construction budget of $3.5 billion in the next five years and that is just for regular distribution investments, normal aboveground transmission investments, and generation investments that will support the clean energy transition that is endorsed

by the City of Tucson.

Adding the cost of undergrounding any of the transmission investments built into this budget exacerbates this figure materially. In this case the cost to construct just 3.2 miles of the preferred route belowground increases the cost of this project by $65 million. And that is just this project alone.

As Mr. Lindsey testified, TEP has future transmission projects in other urban areas such as other parts of Tucson, Marana, Oro Valley, et cetera.

The outcome of this proceeding will inform whether TEP may be -- what TEP may be required to do in other parts of the state. Any city or neighborhood paying attention may enact similar undergrounding language in their local ordinances or plans.

As Mr. Bakken testified, if TEP was required to pay to underground all of the transmission lines in its Ten-Year Plan, that would add an incremental $2.4 billion to its construction budget. Even cutting that number in half, it is still an extraordinary amount money to add to customer rates.

We've certainly had customer opposition to the aboveground construction of MRP in this case, but that's nowhere near what TEP sees in a rate case. The last TEP rate case docket had seven pages full of

customer comments opposing the rate increase. Literally many hundreds of them. By comparison, this docket in its entirety is seven pages long.

There is a reason that the Arizona Corporation Commission has a policy advising public service corporations not to construct transmission lines underground for purely aesthetic reasons.

In utility ratemaking there's a concept known as rate pressure. Utilities need to make prudent investments to their systems to keep them safe and reliable, but they also need to be cognizant of affordability to ratepayers.

Mr. Bakken testified about the importance of affordability to TEP last Monday. This is why the Commission policy cautions against increasing the cost of transmission line construction to customers purely for aesthetic reasons. What is a $65 million cost differential today will multiply with each new transmission line that TEP may be required by the City of Tucson or any other local ordinance to build belowground.

This rate pressure is further pronounced in TEP's service territory in which the uncontroverted evidence showed that 20 percent of its customers are classified as low income under the federal poverty guidelines.

These customers will already have to pay for the investment that TEP needs to make in the ordinary course of business. And it's unreasonable to shoulder them with an even higher rate increase by requiring that part of TEP's transmission system should be buried purely for aesthetic reasons.

The City's attorney in his questions yesterday appear to criticize TEP for not agreeing to pay to underground the project in light of the reliability impacts, and made light of the attendant expense on the preferred route.

That said, neither the City nor any of the neighborhoods that want the line to be undergrounded are willing to cover the cost differential.

The evidence was clear that the City received more than $90 million in franchise fees and utility taxes from TEP since 2021, and that's just through May of this year.

TEP did not and does not dictate how the City will spend its money, and we respectfully assert that they should not dictate how TEP should spend ours.

As you know, this is not TEP's first bite at the apple. TEP tried for years to work with the City to find a means to construct the project in a way that would honor both the City's interest in building the line

belowground, and TEP's and the Corporation Commission's interest in not passing those costs on to customers.

As you heard in testimony, that solution that TEP and the City landed on, Proposition 412, was rejected for whatever reason by the voters. We are past the point of further conversation. The City is unwilling to give TEP the guidance it needs in this case as to whether it will be granted a special exception along the preferred route, or whether it would impose a condition on the special exception permit that requiring undergrounding for a portion of the preferred route that runs through the University Area Plan.

And no one agrees to pay for the cost differential. TEP is a public service corporation regulated by the Arizona Corporation Commission, which has cautioned that transmission lines should not be constructed belowground at considerable expense purely for aesthetic reasons.

I want to note that TEP interacts with the City all the time. We're frequently interacting with them on permit applications and philanthropic efforts with the City of Tucson. And for the most part the City and TEP are not always at loggerheads.

I think that the testimony Mr. Bryner just gave is a good example of that. But in this case, the

City's unwillingness to give TEP the assurance it needs in this hearing, in which the City has brought no decision-makers to the table, TEP has no choice but to ask you to make a finding under A.R.S. 40-360.06(D) that the undergrounding arrangement is unreasonably restrictive and that compliance with local ordinances requiring undergrounding is infeasible in light of the available technology.

As I discussed in my opening, the law interprets feasibility to include economic considerations and the significantly higher cost of constructing even just three miles of the preferred route belowground, a $65 million increase over the aboveground construction allows you to make this finding in addition to other factors.

So please remember that to build this line, time is of the essence, and we respectfully ask the Committee to approve the preferred route and make the findings authorized by the state law that are needed to build it aboveground.

The findings that we ask you to make are contained in the last few pages of TEP Exhibit 36, and at a very high level they are as follows.

The first -- a lot of them are background so I'm going to highlight the salient ones.

The first is that constructing the Midtown Reliability Project belowground is not needed for safety, reliability or other operational reasons. Aboveground construction is just as reliable and safe as belowground would be.

Second, a finding about the significantly higher cost of underground construction, as I have said, building just three miles of the preferred route belowground increases the cost by $65 million.

Third, the project is consistent with the goals of the University Area Plan and the Gateway Corridor Zone. Even with the 138kV transmission line being built aboveground, because the project includes the retirement of existing equipment and relocating existing distribution and other utility infrastructure belowground, the project will result in a net reduction of utility lines of 32 miles of overhead infrastructure in Midtown Tucson.

Fourth, TEP requested -- testified that the project is required to be in service by 2027 to maintain safe and reliable service without the need for additional investment in the existing system serving the area.

If that 2027 in-service date is not met, TEP would need to spend another $10 million to band-aid its existing system, an outdated 46kV system to maintain

the current level of reliability, just until 2030. If the line is not in service by 2030, TEP will need to start rebuilding its existing 46kV system at a cost of more than $50 million.

Operationally, undergrounding the project threatens the 2027 in-service date due to the estimated length of time that the evidence indicates such an undertaking will require. And that time line could be further exacerbated by the likely presence of other utility infrastructure, potential cultural artifacts that could be found beneath the surface.

Fifth, the preferred route traverses primarily through areas designated a low income by the City of Tucson. It's unreasonable to require low-income customers to pay for the substantial cost of constructing a portion of the project belowground when doing so will provide only aesthetic benefits to an area of Midtown that is not designated as low income.

And finally, I would prefer the Committee to make a finding on the ACC's policy statement, which specifically says as a general matter, utilities under the Commission's jurisdiction should avoid incurring these higher costs unless undergrounding installation of a transmission line is necessary for reliability or safety purposes, or to satisfy other prudent operational

needs. Installing a transmission line underground for other reasons such as stakeholder preferences would add unnecessarily to the costs recovered through rates.

So at the appropriate time I'm happy to answer any questions associated with the findings I'm asking the Committee to make, and we respectfully ask that these findings and the other background findings spelled out in TEP-36 be approved by the Committee and ultimately the Commission.

This is undisputedly an important reliability project, and we need this Committee's help in getting it over the finish line. Thank you.

CHMN STAFFORD: Thank you, Ms. Grabel.

Ms. De Blasi.

MS. DE BLASI: Thank you, Chairman. Could I please have my slides?

Good morning, Chairman and Members of the Committee. I would like to first thank the Committee for their attention to hearing all of the parties' evidence over the past week and a half.

On behalf of Banner University Medical Center, I would also like to acknowledge the tremendous amount of work put into this application by TEP, particularly following the amount of work put into the previous application which was pulled from the docket.

Banner has been working with the applicant on this line since before the last application was filed, and greatly appreciates the willingness of TEP to hear our concerns and address the constraints presented by this case.

The entire TEP team should be commended for the professionalism and expertise in siting this line through this challenging urban environment.

As this Committee knows, the development of this project has been a long process. And as I mentioned, Banner has been involved throughout the process.

As we heard during the testimony of Mr. Barkenbush, to date Banner has invested over $700 million in the development of the medical campus. I want to point out that the decisions of the Committee in this case do not just impact Banner, but they also impact the ability of the greater community to receive emergency and medical services from the medical center as a critical resource to the community.

Throughout the process of siting these lines, Banner has been consistently opposed to running a route along Ring Road which is their private property. And Banner believes there are other routes, namely preferred Routes B and 4, that avoid all of these issues

discussed by Mr. Barkenbush.

Again, Banner greatly appreciates TEP's willingness to listen to our significant concerns and to provide the preferred route options that alleviate those concerns impacting both the medical campus and the emergency and medical services provided to the community.

As you heard during Banner's testimony, the medical center is a critical medical facility for the City and the region. The medical center is ranked as the number one 1 hospital in Tucson and the number 2 hospital in Arizona.

Banner is an Arizona non-profit corporation whose primary mission is to protect the health of populations it serves through the provision of affordable healthcare for such specialty services as comprehensive heart and cancer care, advanced neuroscience techniques, and a multi-organ transplantation program.

The medical center is one of only two Level I trauma centers in southern Arizona. Diamond Children's Medical Center located within the medical center provides specialized pediatric services including neonatal and intensive care, emergency medicine and cancer therapies.

The medical center is also the primary teaching affiliate of the University of Arizona College

of Medicine.

As we heard from Banner, the corridor selected for the project is of critical importance to the medical center and will directly impact its operations including emergency services.

Due to the medical center's close proximity to the proposed site for construction of the new UA North Vine Substation, there are several proposed routes in this area. However, there are choices to the north and west including applicant's preferred Routes B and 4 that avoid some of the most difficult aspects of the case.

For ease of reference we have put together a summary chart with the impacts of the different routes discussed during Banner's testimony. I'm going to walk through each of these issues as we discussed.

With respect to emergency flight access, we heard testimony from Banner regarding the detrimental impacts to access for its emergency flight operations for any aboveground lines sited directly to the north and east of the medical campus.

Mr. Barkenbush testified that there were approximately 2400 landings and take-offs in 2023, oftentimes can be up to three a day.

In City of Tucson Exhibit COT-9, Council Member Uhlich also commented on substantial importance of

the emergency flights to the community.

Alternative Routes D, 1, and 6 would create obstacles to the north and/or east of the medical center for emergency helicopter access, especially in windy conditions. As Mr. Barkenbush testified, this is the currently-agreed path for the emergency pilots where possible.

In addition, the overflow emergency landing area on the corner of Ring Road and Campbell would likely be rendered unusable, given proximity to power lines if sited near Ring or Lester Roads.

No matter what experience someone might have riding in a helicopter, it is the pilots for the hospital who literally have patients' lives in their care and should be allowed the most unfettered access to provide their services where seconds count in a patient's life, especially in windy weather conditions that are common in Tucson. This is especially the case where there are many other options including applicant's preferred options that avoid this interference.

The Committee is tasked with considering viewsheds impacted by the line alternatives. Mr. Barkenbush testified as to the reasons for siting of the patients' building to be inclusive of a calming view, and to the detrimental impacts to the viewshed for the

patients and their family members visiting the hospitals, if alternatives D, 1, or 6 were to be built directly north of the medical campus.

Due to the height of these poles, that would be the equivalent of a six- or seven-story building. The hospital viewsheds are uniquely impacted due to the fact that these power lines will be directly at eye level from within the patient and family visitor areas of the hospitals.

I will remind the Committee of the testimony that there were 25,858 total admissions to the hospitals in 2023. This viewshed impact would be further impacted by potential route shares immediately to the north of the medical center.

With the proximity of the helipads on the hospital to the power lines, any FAA requirements to have bright red blinking lights on poles and red ball markers on wires would have an increased detrimental effect on this viewshed. Preferred Routes B and 4 avoid these impacts.

We heard Banner's testimony about their significant outreach to the surrounding neighborhoods, particularly the Jefferson Park neighborhood to the north to address neighborhood concerns under contractual agreement for the creation of a nature buffer to the

north of the medical center. And the implementation of significant storm water and drainage improvements.

In addition to impacts to the viewshed area, alternative Routes D, 1, and 6 would cause an interference with the purpose of the creation for this nature buffer between the medical center and the Jefferson Park neighborhood. Again, preferred Routes B and 4 avoid these impacts.

With respect to construction interference, we heard testimony from Mr. Barkenbush that preferred Routes B and 4 would avoid access interruptions and significant construction noise and other interference during construction of either aboveground or underground power lines near the medical campus.

For alternative Routes D, 1, and 6, the construction of aboveground lines would limit access to the hospital for patients, visitors, and the 3200 employees if sited along Ring Road, as this is the only access point to the public for the hospitals.

This includes those patients who are being brought to the hospital for emergency services by way other than ambulance.

Construction of underground lines on Ring Road would completely shut down access to the hospitals for patients, visitors and the 3200 employees for a

significant amount of time.

There are significant underground infrastructure for storm water that would need to be avoided along Ring Road which would complicate siting a line along the road. These construction restrictions were testified to by both Banner and the applicant's witnesses.

Again, Mr. Barkenbush testified that in 2023, the hospital had 68,089 total emergency department visits and 25,858 total admissions. These construction issues along Ring Road would cause a significant detriment to the community's ability to access emergency and hospital care. This detrimental impact is not necessary when there are other alternatives, including the preferred routes that would avoid these impacts.

With respect to the interference with communication and EMF issues, Mr. Barkenbush testified that the impacts to communications and sensitive equipment from aboveground 138kV power line in close proximity to the hospitals had not been tested.

Banner would not want to test this issue if the lines were routed along alternative Routes D, 1, and 6. Since preferred Routes B and 4 avoid these potential impacts, Banner supports these preferred routes.

In addition to avoiding other impacts to

the medical center, the preferred routes avoid impacts of running parallel within a Gateway Corridor Zone, which is a significant issue and controversy in this case.

All of alternative Routes D, 1, and 6 run within the Gateway Corridor Zone as well as cross the zones. If these routes are chosen, it is likely that there would be significant delay due to the uncertainty, or this line may not be built at all if required to be undergrounded within those zones.

Preferred Routes B and 4 do not run within the Gateway Corridor Zone, but only have crossings. While we acknowledge there is still uncertainty around the crossings, it is possible that they will be easier to resolve than the routes running within the corridor zones.

As testified by applicant, there's a potential for a route share along Routes D-6 and D-1 which would increase the impacts that are already discussed. Since the preferred Routes B and 4 avoid those impacts, Banner supports the preferred routes.

Finally, TEP's request for a 400-foot corridor along Routes D, 1, and 6 could allow TEP the ability to site the lines within Banner's private property, as close as 500 feet from the hospitals.

As testified to by Mr. Barkenbush, Banner

would contest the condemnation along its road, which would result in further delay in building the project, where TEP has indicated time is of the essence.

I have been involved in condemnation litigation for power lines and it's not uncommon for those actions to take up to a year or more to resolve.

To be clear, Banner does not want to further delay this process, but it would be forced into the condemnation process to protect its property rights and values if routes crossing its private property were chosen. This an additional reason that Banner supports preferred Routes B and 4.

Therefore, Banner requests if one of these routes were to be chosen that the requested corridor in this area be narrowed as it was in other areas to only include the public right right-of-way of Lester Road.

Banner still holds its concerns that any aboveground line and potential route share running to the north and east of the hospitals for alternative Routes D, 1 and 6 would have the significant impacts that would be detrimental to the emergency and other medical services that Banner provides to the community.

For all of the reasons enumerated, Banner requests that the Committee reject the applicant's alternative Routes D, 1 and 6, and select the applicant's

preferred Routes B and 4, or an iteration that avoids the areas to the north and east of the medical center.

Again, the impacts along Routes D, 1 and 6 are not just to Banner, but to the communities served by Banner for its critical emergency and medical services as a Level I trauma facility including the Diamond Children's Medical Center.

We would like to thank the Committee, applicant, and other parties for their time and expertise during this important project.

Thank you.

CHMN STAFFORD: Thank you. Mr. Lusk.

MR. LUSK: If I could just have a moment to get my slides.

CHMN STAFFORD: Of course.

MR. LUSK: Thank you, Grace.

So Mr. Chair, Members of the Committee, my colleagues on the -- representing the various parties.

I want to be clear at the outset, and I think I speak for -- I can speak for the City on this one matter and that is that the City is committed to the success of TEP and the Midtown Reliability Project.

And I think the testimony's been pretty clear on that from both sides, actually, because Mr. Bakken testified that he sat with the city manager

and the city attorney for two years to develop the requested solution.

We drafted the new special exception process that applies basically only to TEP, and we, in fact, as part of that solution drafted a new franchise agreement to address the costs for complying with the Gateway Corridor Zone.

So the challenge here is not lost on the City. And it's a challenge for everyone involved, right, because the City's challenge is to ensure the code and processes are followed, and that's what we're required to do by our community, and what we've been asked to do by our code and our charter.

And TEP's challenge is great. This is something that hasn't happened before. Again, what TEP's challenge is is to get a 138kV line that has never been in the Midtown area into the Midtown area. There's a multitude of challenges and the City doesn't disagree that that is a hard thing to do.

What TEP is asking you to do as well is difficult, because what they're asking you to do is to grant a certificate notwithstanding any ordinance, master plan or regulation, exclusive of franchises, of course, and find that the regulation is unreasonably restrictive and compliance therewith is not feasible in view of

technology available.

So I'm not going to belabor the statute, but I want to be clear, the plain language of the statute does not include cost as a factor in feasibility. The two sections, A subsection A --

(Phone interruption.)

MR. LUSK: I'm not here.

MEMBER KRYDER: Sorry.

MR. LUSK: The two subsections that have been referenced in this proceeding are Subsection A as it relates to the factors that are required to find -- for this Committee to find in a -- in the granting of a CEC. And that's in Subsection A.

Subsection D does not include those factors. They're separate provisions, and the fact that cost is not mentioned in Subsection D points to its focus on technology rather than cost.

All the testimony provided on every route indicates that TEP could have complied with the Gateway Corridor Zone requirements with the technology available. Nobody is disputing that, and that's in the record.

So what does the Gateway Corridor Zone require? The testimony has been clear that new utilities are required to be undergrounded in the Gateway routes.

So I'm an attorney, so I'm going to walk

through the rule, because that's what I look at is the rules; right?

So the first thing that has to be found is that the regulation is unreasonably restrictive.

The regulation that provides for the Gateway Corridor Zone is UDC Section 5.5.4.B.1.A. it only restricts utilities on select corridors consistent with voter preferences, as expressed in the general plan and the Major Streets and Routes Plan. Both the Arizona Supreme Court and the Arizona legislature recognize that cities can require undergrounding within their boundaries.

And this is from a case that I believe all the parties are familiar with, Arizona Public Service Company v. Town of Paradise Valley, where the issue at hand was whether or not the town of Paradise Valley had the authority to require undergrounding within its jurisdiction.

And the court found that it did. They stated that, "We believe that the legislature has given cities and towns the power to require the undergrounding of utility poles as part of the Town's zoning powers."

Reading the statute 9-462.01.A.3, that the legislative body of any municipality by ordinance may regulate location, height, bulk, number of stories and

size of buildings and structures.

Jennifer, let me know if I need to slow down.

THE REPORTER: Yes, please.

MR. LUSK: This statute is a legislative grant to the cities of the authority to regulate the use, location, height and size of utility poles. And we find nothing in the Arizona statutes which exempts utility poles from the grant of authority to the towns to enact zoning laws.

So the Arizona Supreme Court looked at what authority a city has and determined through those statutes that were provided by the legislature that we have that authority and the authority is reasonable.

So where does the Gateway Corridor come from? And there's been discussion about purely aesthetic reasons in the policy statement. And that is not what's discussed in the implementation of the Gateway Corridor.

The Gateway Corridor Zone comes from the Major Streets and Routes Plan as was discussed earlier. And what the Major Streets and Routes Plan says about Gateway Corridors is that the goal is to upgrade the developed streetscape of the city, identify regional corridors.

Those corridors that are identified for

future street improvement and adjacent development used by visitors reach transportation terminals, hotels, resorts and recreational facilities, and who have average daily volumes generally over 30,000. Those are not necessarily all, in fact, not even a majority of those factors are related to aesthetics. This is how the city moves.

This is, again, a description of -- this is a major streets and routes map, and as you can see only two full north-south routes are Gateway Corridor. There are two half corridors, including Oracle and Alvernon, and then east-west there are three full corridors.

That in my mind is not unreasonable to restrict in a city, especially a city the size of Tucson.

This is the Gateway Corridor Zone within the project area. As you can see, again, those two north-south corridors, Oracle is only half of a corridor, and then Broadway.

This shows the routes with the Gateway Corridor Zone imposed as well as the University Area Plan. As you can see, they're not -- the applicant is not restricted from most of their routes.

And this, I want to put this up because it's just to clarify what the actual impact of the GCZ is. This was talked about earlier and we don't need to

belabor it.

So not only is it not every route within the -- within the application or within the city, but even the routes that do -- are impacted by the GCZ, there's a relief allowed under the code through two separate processes, including one developed specifically with the applicant to apply to transmission lines.

So, again, this describes, which Mr. Castro testified to, as to what the special exception process is. And there was a discussion -- there was some discussion in the applicant's closing about the City controls the process and its outcome.

And I would only -- I would only disagree with that past part. And the discussion that occurred around the special exception process with both the members and the parties seemed to suggest that what should have happened is the special exception process should have been completed within this hearing. And that's just not how those processes work. And we wouldn't expect that to be the case.

In the same way that we wouldn't be able to -- we wouldn't be able to prejudge the outcome of this proceeding because it's a deliberative process. And so that is not the goal of this proceeding, and, again, I-- I refer back to that difficulty that you're faced with as

the Line Siting Committee, and the request from the applicant, because that's not how the Committee works, nor how the special exception process works.

Again, I won't belabor the relief available but I will highlight that in the preferred route, and just to be clear the preferred route crosses the Gateway Corridor Zone only, and it crosses it three times.

So special exception process would be applicable to those three crossings and is specifically applicable to those three crossings with the language given.

And I know there was additional discussion about what the special exception process itself requires and what those findings were. This is -- this slide is just meant to determine or to let the Committee know there are specific time frames involved in the process.

So a public hearing must be held within 70 days of acceptance of the application, can only be continued for 30 days, and once the public hearing occurs, the decision has to be made within five days.

So here are the findings that are actually required for a special exception process, and let me be clear, and I'll discuss this later, but the special exception process, no matter what this Committee does, will have to be gone through for the Vine Substation. So

these special exception findings will occur.

So the zoning examiner has to find that the standard expressly applied by all adopted -- that it meets the standard expressly adopted by all codes and regulations for that type of land use.

That it doesn't adversely affect adjacent land uses. That it provides for adequate and efficient vehicular and pedestrian access and parking. Obviously that's not going to be an issue.

And it could be adequately and efficiently served by public facilities. Obviously also not an issue. And that it complies with the general plan and any applicable subregional area, or neighborhood plans.

And so the discussion has been prior that because of the uncertainty that whether or not this complies -- the request -- requested special exception would -- would comply with the University Area Plan, there's been a discussion that perhaps the -- a condition of the special exception would be that you'd have to underground everywhere within the University Area Plan. And I would suggest that's just a red herring, because here's what could happen and what decision could be made.

There are three intersections. The only concern I think I heard from Mr. Bryner is that Broadway

intersection as it relates to the University Area Plan, and that is the only intersection within the University Area Plan.

A special exception process could be -- could proceed on that intersection, and if it fails only underground that intersection. So there is no way in the applicant's preferred route that you would ever have to underground 3.2 miles. In fact, you would never have to underground more than those three intersections.

And I think the testimony of Mr. Bryner was his confidence, understandably, might have lessened around that intersection, but it wasn't lessened around the other two intersections in terms of being able to proceed through and be successful in the special exception process.

So as it relates -- and then again you have an entirely separate process called the variance. And Mr. Bryner spoke about that this morning. And I agree with everything -- well, almost everything that Mr. Bryner said. As it relates to cost I think we might have a disagreement and who pays that cost, but overall that was a successful process.

And what it allows is the same thing as a special exception process allows; it allows a local process to grant relief from the requirements of the GCZ.

And that process was available in 2021. Had that process -- had the line siting process continued and a route granted, the variance could have been sought. At that time, and TEP was familiar with the process and had been successful with it. And the City supported TEP in that process.

These are some of the findings that are required in the variance. The variance process actually doesn't look at the area plans. So if TEP was unsuccessful in getting the special exception required for the crossing at Broadway, they could also seek a variance. And, in fact, the Gateway Corridor Zone regulation specifically says that a special exception does not preclude a variance.

So as you can see, the -- because of the relief available and the limited area in which the Gateway Corridor Zone is drawn, then it's hard to say that that's an unreasonably restrictive ordinance.

So then the question is is it feasible with the technology available, and we've already heard that just on technology, the applicant can build the routes, any of the routes. But more importantly as it goes to the preferred routes, there's no reason to presume that cost is a measure of the feasibility.

And it's -- even if you did presume that,

it wouldn't be the only measure of feasibility, which that is the testimony that you've heard. There's been no one up there that says because of this factor and cost it's not feasible. It's only been cost.

And I would suggest that most of the discussion around cost is not about how much it costs, but who pays the costs. And that is not a measure of feasibility either.

And you can see that it is feasible for the company because they contemplated it in their franchise, their current franchise, and they also contemplated in the proposed franchise that was voted down.

The testimony of Erik Bakken was that the plan going forward for TEP and the City was to proceed with undergrounding some portions of the transmission line with the franchise fees that would have been collected. Clearly, that means it's feasible to do so.

And the testimony of Mr. Bakken was also that in that proposal, the idea was that they would collect about 4- to $6 million per year. That would go for reimbursing the company for undergrounding as it relates to this project.

So as we can see, the applicant complied with the GCZ in multiple ways. So they can apply for and receive a special exception process for the crossings in

the preferred route, and I think they make a very good case.

I don't speak for the City, but I think they make a very good case for receiving the special exception processes especially with, as Ms. Grabel discussed, the reduction in distribution lines in the areas affected. As well as some of the other conditions that they're willing to do.

They can build any of the routes and underground where required and they could have done that without your help and been there years ago.

They could build the preferred route and underground at the intersections of the GCZ. Three intersections. I think the testimony was about 200 feet per intersection. I don't know because I haven't measured it, but that was just the discussion of yesterday.

You can build any of the routes and receive a variance from any or all of the GCZ requirements. Those are the options. That to me does not seem either unreasonably restrictive, nor does it seem infeasible.

So what is feasible? The plain language definition is capable of being done or carried out. Obviously there's going to be nuance to that. But the example that I have is until about 2008 it was not

feasible to drive an electric car more than 150 miles, with the available technology.

It is feasible to do so now. That's a clear distinction, and I think it makes sense when you think about the terms of the statute would say feasible with the technology available.

Mr. Jocham did a very accurate portrayal of what was involved in undergrounding a transmission line, including undergrounding a transmission line within an intersection. He provided many slides and a lot of information to the Committee about what that would look like and how it would be accomplished.

So just real quickly, I want to -- because there's been some discussion and we've gone down some tangents, but I want to be clear the feasibility is not about whether it's temporarily inconvenient or disrupts traffic.

Because those are -- those don't relate to how the thing is getting done and if it can be done. Obviously, if we were to talk about shutting down three roads for months, maybe that's a different story, but that wasn't the testimony. The testimony was that there would be lanes open, that it would be for a short period of time. And you could not -- it could be accomplished.

Also, I want to make sure that we're not

discounting the testimony of the applicant. It's not the City's preference nor the TEP preference. I'm looking at you, Clark. So Erik Bakken testified if we have to go underground, where does it stop? That's a preference.

And Ms. Grabel's characterization about thinking about $3.5 billion over the next five years is not feasibility. It's not related to how this project gets done. Understandably, TEP is uncomfortable with doing underground transmission lines. They've never done them before and they're difficult to do. That is undisputed. We don't disagree that either.

But it also doesn't mean that because they're unfamiliar with it and they don't do it very often and don't want to do it, that it's infeasible. As Mr. Bryner said, we do overhead and that's all we do and they do it well. They do overhead very, very well. And they'd like to continue to do so.

But I will remind you that Mr. Bakken's testimony started with idea of modernization. And I think about modernization as looking toward the future. And many, many cities and many, many areas in the country are undergrounding distribution lines and transmission lines for various reasons.

To be capable of doing so, if it's necessary, and the City isn't requiring that it do so in

every route or at all times or even very much, especially on the preferred route.

But it can't be that the applicant is just refusing to underground in any capacity or any way because they're afraid that somebody else is going to ask them to do it, too. That's not feasibility. That's preference.

And you can see that by both Mr. Bakken's and Mr. Lindsey's testimony that they don't want to and if they have to go underground they won't. They'll find another way.

So it's not only cost to the utility. The only claim made by the applicant as to feasibility is that the additional cost is not borne by another party.

Our discussion yesterday, and I apologize to any of the witnesses if they thought I was criticizing them, because I wasn't. What I was really trying to get to was the information that you need to make this decision.

This decision is about how this gets done and if it can get done, that means it's feasible. And so if it can get done by undergrounding one intersection, we're done, because that's feasibility. And that doesn't seem like an unreasonable ask. Nor does it seem infeasible either as to cost or to technology available.

And, again, I wasn't trying to criticize anybody, but there was a refusal to even discuss that. It's -- there was also sort of a demurral about discussing that with Member Little for the same reason.

Again, I think the testimony of Mr. Lindsey was that we don't really want to talk about that because we're afraid that these other cities will ask us to do it -- excuse me -- will ask us to do it as well and we don't want to do that. And it's, again, completely understandable, but not infeasible.

This is TEP-31. As you can see, the preferred route presumes no difference in cost because they'll be able to get the special exception.

Now, that's not to say that we can prejudge that, and I understand, I completely understand that TEP would like to be certain that they're going to get a special exception, but that's just not how a public process works, and it don't work that way for a particular reason, because it allows flexibility, and it allows input from the community.

And there has been some discussion about whether that makes it harder on businesses or not, and I can understand that sentiment, but it also makes it better for our community because our community gets to weigh in on things like this, and this is an important

thing, a very important thing for both the applicant and the community itself.

Because these -- these power lines are not going to be there for a couple days, they're going to be there I think the testimony was 75 to 100 years.

So understanding that, and understanding what the impact of that is a deliberative thing and should be a deliberative process with the community. And the City is committed to that process. And the City is committed to that process with TEP. And I think the efforts that we've made up until this point have shown that and will continue.

So I think I've already covered this, but I want to emphasize there is, for the preferred route that I think both Banner and the applicant are in support of, there is no undergrounding of 3.2 miles. It's only of at most in the very worst case, three intersections. And only the Broadway intersection, if you include the UAP.

So if you include the UAP and the zoning examiner finds that it requires undergrounding, only the Broadway intersection is impacted.

So Mr. Bakken also talked about some of the ways that it can be paid for. Now, assuming the cost is a factor, and I reserve our right to argue that point, assuming that cost is a factor, it's not only that the

amount of the requirement, to comply with the requirement, but it's also how it gets paid for and its impact on the applicant. Right?

Because I can't afford $25 million. However, I would hazard a guess that TEP could, as could the City. So if the matter is who pays for it, that's a different question than how much and what the impact is on the applicant.

So Mr. Bakken's discussions with the City focused around several ways to pay for the requirements. That included shareholder contribution, which understandably, I understand that TEP does not want to do that.

They value their shareholders. I'm sure the shareholders value their company and don't want to add expense if they think they cannot -- get away with not doing it.

But assuming that the cost of three intersections is not likely to exceed $10 million, and I understand TEP's reluctance to give us an exact number on that, but assuming it doesn't exceed $10 million that's 1/25th of the profits of TEP.

Assuming also that we go through a ratemaking process and recover it in rates, Member Little calculated a rate impact of about six to seven cents to a

hundred dollars. UAZ calculated a rate of about 2.3 cents on a hundred dollars.

I understand and appreciate the applicant's concern about low-income citizens of Tucson, and I share that concern. I don't know that that impact is going to -- I think that impact is negligible on those particular individuals as well as all the individuals that will be participating in that rate.

Franchise fee and financing. So that's my discussion with Mr. Bakken about what the actual point of the new franchise was supposed to be, and his discussion was we were going to recover the amount that we would have to underground through the new fee, and that fee would equal about 4 to $6 million a year, meaning that they would recover the amount that they were going to recover in 10 years.

That's not an exorbitant amount either from the City or from TEP, but more importantly it's not infeasible to accomplish that to get those amounts paid.

I'll briefly -- I assume my colleague from UAZ will probably talk about this much more than I would. I want to be clear about what the decision that the Committee has to make.

First of all, I've looked at the proposed CEC and I note that there isn't a specific regulation

denoted in the findings. It is the idea of undergrounding that is denoted in the findings.

I think the City would argue that this is insufficient for this particular finding because the finding requires that you find for a specific ordinance, master plan, or regulation that it is unreasonably restrictive and not feasible with the technology available.

So assuming, though, that the Gateway Corridor Zone is the focus of that undergrounding requirement and the University Area Plan is also a focus, I will discuss briefly that the University Area Plan is a policy document that guides local zoning decisions and allows flexibility in a local process to allow both TEP and the community to best decide how to comply with it.

Now, I understand that gives TEP a little bit of heartburn because we don't know what that looks like. But, again, we do know the absolute worst outcome that could happen on the preferred route, and that is they would have to either comply with the special exception conditions or they could refuse the special exception and proceed underground.

So more important, though, the University Area Plan is not either an ordinance nor a master plan, nor a regulation. Master plan in this context is

something like what Banner has, a planned area development, and you heard Mr. Castro talk about that. That is not a neighborhood or a specific plan. Nor is it a regulation. And you heard Mr. Castro talk about that as well.

More importantly, even if the Committee makes the finding that the applicant is requesting, the projects will still have to participate in that same local process. As Ms. Grabel described, it is the same local process for the Vine Substation, which is required for the project.

So it doesn't make sense to look at the University Area Plan and discount it in any way because they'll have to contend with it in any case.

So I'll finish up by I think where we started this morning and I want to thank Mr. Bryner for his discussion of the Silverbell project, but we, the City has and will continue to work with TEP to accomplish the project.

There have been many successes. I know you haven't heard a whole bunch of them, but they're there. I enjoy working with my colleagues across the aisle -- well, next to me, actually.

But more importantly I think we're all committed to a safe, reliable power source for the city

of Tucson. We're all committed to working together to make this community better both aesthetically and as a -- as the great city it is.

So I just wanted to put up from one of the UAZ slides the discussion of Chandler, because we talked about it a little bit here, but I thought this was important.

Chandler put this in their promotional materials. They "worked with SRP to meet the City's preference to avoid new overhead transmission lines corridors in residential areas, address conflicts with existing underground utilities and build the project to minimize future neighborhood disruptions."

I think that's a great way forward. And I think we can get there because we've begun there. So this is from the Silverbell Road power line relocation that Mr. Bryner discussed this morning.

That particular area is rich with archaeologically significant materials. And there's a high density of sites. And both the City of Tucson and TEP were very concerned about the requirements of Silverbell Corridor Zone, which are also the same as the Gateway Corridor Zone in terms of undergrounding utilities. And together we devised the solution to that problem.

And I think we can go forward together and do that as well. The finding isn't required. It isn't necessary. It won't fix anything. Right? Because it does not -- well, and I've already discussed, it doesn't preempt local law.

I know that's been the request but what it does is allow you to grant the CEC. It does nothing to tell us what happens after that. And the City of Tucson still wants to preserve its authority, as does TEP, and as does this Committee wants to preserve its authority to enforce its own code.

So it will not resolve the concerns of either side, or the potential for litigation. And I want to also address there's been a couple comments about leverage. And I understand the desire to do that, but that is not the goal of this legislation, nor is it the goal of this Committee.

And I agree with the members that have talked about mediating between the City of Tucson and TEP. I don't think that's necessary. And I don't think it's going to get accomplished in this particular proceeding in this particular way.

We have a path forward. There's a preferred route that has minimal issues with the Gateway Corridor Zone and the University Area Plan. And we can

get that done. And I'm hoping that the Committee will allow us to do that. Thank you.

CHMN STAFFORD: Thank you, Mr. Lusk.

Mr. Dempsey.

MR. DEMPSEY: Can we take a break first and I can set up slides and --

CHMN STAFFORD: Yeah, I think we're --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Could I clarify something in Mr. Lusk's closing statement? I'm not sure if that's appropriate or --

CHMN STAFFORD: I'll allow it.

MEMBER LITTLE: I just wanted to say that the calculation that I did and presented was not a rate impact because that's impossible for any of us to say in advance because ratemaking is so complex.

What it really was is a calculation of the increase in the collections, current collections, which -- on a monthly basis of undergrounding under that scenario.

CHMN STAFFORD: Thank you very much, Member Little. Since it was a clarification of your own statement, it was more than appropriate for you to make it.

MR. LUSK: Agreed, Chair.

CHMN STAFFORD: All right. I think with that let's take a brief recess and then we will hear closing arguments from Underground Arizona. We stand in recess.

(Recess from 10:20 a.m. to 10:44 a.m.)

CHMN STAFFORD: Let's go back on the record.

Mr. Dempsey, are you prepared to give your closing argument?

MR. DEMPSEY: I think I am, yes.

CHMN STAFFORD: Please do.

MR. DEMPSEY: Thank you.

So I also have a couple of slides, and we're going to try to add them at the last minute, so it might be a little clunky, but bear with me. I'm not ready for them yet, but thanks.

TEP keeps acting like it cannot follow the law, but it has not established that it cannot follow the law. In fact, the courts have recently told it that it must follow the law. It also keeps acting like it cannot pay for undergrounding, but it similarly has not established that it cannot pay for undergrounding.

I gave many examples of APS and SRP paying for the extra cost of undergrounding. SRP paid about

$20 million in extra costs to underground three miles of a 230-kilovolt transmission line in Chandler, and the Line Siting Committee had no problem with it.

APS just paid nearly $30 million to mitigate only 3 miles of an underground line in central Phoenix. That does not seem to include the cost of reconductoring or any repairs that were required.

TEP has not demonstrated that any costs that will be borne by ratepayers here is any more significant than it was in those instances where all of APS and SRP's ratepayers covered the cost.

I understand that SRP has a different regulator, but the line siting statutes don't say cost only matters if the ACC is the regulator. My understanding is all of the utilities follow the same standard of just and reasonable cost.

Otherwise, why did Zack Heim of SRP talk about costs in his testimony if the Line Siting Committee is not required to care about cost to SRP ratepayers?

The uncertainty here has been created by TEP, not the City. The policy statement on which they rely was created at their request in October of just this last year. It does not prohibit TEP from following the law. It tells us what we already know. Be prudent with your spending.

Do not underground arbitrarily past the CEO's house. Undergrounding where required by law is not arbitrary.

As to TEP's cost estimates, they're at the high end of the range because they include add-ons like spare conductors that other comparable projects have not used.

This system will be part of a loop. An expensive spare can be ordered as needed instead of aging in a warehouse.

It also included double vaults, which I similarly have not seen in a comparable project.

Sargent & Lundy uses a conductor size in their estimate that may not be necessary if the depth of the project turns out to be closer to the surface. All of these little adjustments serve to inflate the cost.

In their original estimate Sargent & Lundy put undergrounding from Broadway to Grant at only $16 million total, the whole thing. I understand that it was preliminary, but it has gone up over five times -- by over five times.

Yes, there has been inflation, but not 500 percent inflation. Okay. Now we can do the slides. I want to quickly walk you through the updated Sargent & Lundy table. This is the table using the $2.9 million

per mile for overhead instead of the erroneous $4.1 million per mile.

This gets us to a low-end project cost differential of about $22 million. And this is the table assuming a $500,000 per mile cost for underground right-of-way. It's entirely impossible there will be no right-of-way cost if TEP can stay within the road right-of-way. So we're still in the ballpark of about $20 million in extra cost, which works out to a total cost per mile of $12.8 million.

Now, I use the low end because the Intel HIP SRP project was only about $10 million per mile for about three miles of length or $30 million total. And this is from an actual legal contract which you can read in Exhibit UAZ-6.

There's absolutely nothing -- there's absolutely no reason why the cost here should exceed the Intel HIP SRP project. Our project is a lower voltage, a shorter distance, and involves one less duct bank.

The extra cost should absolutely not be double or triple as TEP's application estimates.

There has been inflation, but copper prices are flat to down since that time period. If the SRP undergrounding project was feasible for SRP at nearly $30 million, then surely this project must be feasible

for TEP.

We are using TEP's own figures even though we disagree with them.

As to urgency, TEP has testified that it would not let the system fail. Instead of undergrounding the project, it will spend 60 million more dollars in addition to the 10 million it has already spent to do the necessary repairs on the existing facilities to keep the community safe while it continues to fight to not spend the $20 million extra cost to underground.

How $70 million -- how spending $70 million to not spend $20 million feasible makes absolutely no sense to me.

We also want this done as soon as possible. And we believe the most surefire way of ensuring that is for TEP to follow the law using Route 1-A. There's way too much uncertainty in these other areas that cross through neighborhoods and historic districts zoning that will slow down this process even further.

The University Area Plan is far from the only obstacle to building high voltage transmission lines in historic and residential areas.

Still another concern is the impact of construction on Campbell. Broadway, an adjacent major arterial road, was recently reduced to two lanes for

multiple years. For Campbell, we're talking about less than half the amount of time, and it will be done in sections, and the road should have three or more lanes still open.

For homeowners, the increased construction noise will be partially offset by reduced traffic noise, and only a handful of businesses will be affected at all because few businesses reside on either side of Campbell from Broadway to the entry of Banner and beyond.

As to Proposition 412, the Prop 412 voter packet, which is COT Exhibit 4, mentions nothing about undergrounding. TEP was asking for a large rate increase at the same time as it was asking for a large franchise fee increase. The current franchise agreement which was passed by voters includes an entire section on undergrounding wherein TEP agreed to underground at its own expense where required by law. This is Section 21 of UAZ Exhibit 12.

So the voters have had something to say on this issue before, and they adopted that language.

If the Committee is to reach a finding of infeasibility due to the cost as stated by TEP, there must be a means by which the Committee determines a cost infeasible. This is why we presented evidence of the clearly affordable amount of the requirements costs

relative to comparable projects and relative to TEP's present revenues received from ratepayers and relative to TEP's overall projected capital expenditures.

Sorry, Member Little, but I'm going to use you as well.

To use Member Littles' apples-to-apples calculation and TEP's cost, the cost increase due to the requirement would amount to about six or seven cents out of every $100 received from ratepayers, which amounts to just under one dollar per year relative to the payment of an average ratepayer.

And this is the worst-case scenario. It may cost closer to $0.10 per year or less. This is much less than Prop 412 would have cost maybe by an order of magnitude.

Regarding overall capital expenditures using the low end of Sargent & Lundy numbers, the cost would be about $20 million to TEP's $3.5 billion in projected capital expenditures over the next five years.

This is about half of 1 percent of its projected spending. Such a financial cost incurred from the project meeting the required undergrounding we believe cannot be considered so significant or even nearly so as to render the project infeasible.

Okay. Sorry.

And these cost figures exclude savings to TEP that will come from retiring other facilities. They also exclude the substantial financial risk to TEP that overheading the route through the center of the City are likely to bring from lawsuits by private property owners as well as the risks of sizable costs connected to overhead facilities from worsening weather conditions. Not the mention the legal costs and delay TEP incurs from continuing to fight our local regulations.

TEP also ignores a substantial amount of high-density infill development that has occurred, which its lines would substantially alter. The issue here is not merely aesthetics. It's about land use in the densest area of town. It is also about long-term reliability.

In our view, the City has been completely reasonable but -- reasonable but has a few red lines. TEP continues to ignore those red lines hoping to do an end around through first the courts and now the Line Siting Committee.

As far as I can tell the City has believed itself to have these powers for at least the last 40 years. APS versus Town Paradise Valley was decided in 1980. The City has not abused this power thus far. To believe that the City will now start abusing the power to

the tune of billions of dollars is hyperbolic and unfounded.

As to the line siting statutes, they clearly do not put costs on a pedestal. A utility can spend more to protect certain areas as APS and SRP have done throughout the Phoenix metro.

Central Tucson is long protected by ordinances and plans. This should not have been a surprise to TEP. If these were planning errors, those are at -- those are its costs to bear and should not be a reason to be allowed to ignore local laws. Otherwise, why will a utility ever respect a City's laws if they can get a hall pass for the delays caused by their own preferences?

Finally, there's TEP's claim that the project construction overhead will remove more poles than it erects. The fact is that how many poles will exist after this project is a complete unknown. TEP has no control over what communications and other companies will decide or how many service drops will have to be added. Not to mention that fewer poles but much larger ones would for many be worse and certainly no better than a tradeoff.

The UAP policy calls for undergrounding lines, not putting taller ones up while reducing smaller

ones. In any case, no matter what conclusion one reaches regarding much taller but fewer poles or any other visibility issue, it does not warrant calling the project infeasible given the available technology.

As far as I can tell, 100 percent of TEP's customers live in the extended Tucson metro region. This is the economic heart of that region. As it grows, so does the metro area. Pretending that these are discrete, separate areas belies reality.

If you remove the university and downtown Tucson, the entire metro area would suffer greatly economically. So too will it suffer if you allow TEP unrestrained placement of poles and wires.

The underground lines in central Phoenix are not just for the benefit of the people that live in central Phoenix. And the underground lines at Tempe Town Lake aren't just for the benefit of those that live there.

Undergrounding did not become required here to benefit the central neighborhoods. It was done because the city council believed it benefitted the entire metro area to protect the city center.

Our bottom line is that undergrounding is clearly feasible. Moreover, none of the line siting factors favor this -- favor the project as it is

currently proposed.

To help TEP not have to start over we suggest choosing Route 1-A. This would eliminate the legal challenges it may otherwise face.

I'm going to close by repeating what I opened with. TEP keeps acting like it cannot follow the law, but it has not established that it cannot follow the law. It is not prohibited by any law or the ACC from following local laws. All it points to is a policy statement which is not a law that it created.

In fact, the courts have told it that it must follow local laws.

Similarly, TEP keeps acting like it cannot pay for undergrounding, but, once again, it has by no means established that it cannot pay using its normal process. If it can spend $70 million to not follow the law, why can it not spend $20 million to follow the law?

The cost based on TEP's own estimates is clearly feasible by almost any definition of the word in our view. Other Arizona utilities have done similar projects and paid for undergrounding with the line -- with the Line Siting Committee's blessing. Therefore, the cost must be feasible.

As Mr. Lusk said -- we agree with Mr. Lusk. The community will also continue to work with TEP. We've

proposed many -- we've had many ideas. We've tried to come up with solutions such as the halfway solution and other solutions.

So we'll continue to do that. And I have a great working relationship with the people at TEP. I like them, and I think we're congenial, and it's great. So I agree with Mr. Lusk.

But anyways, that's where I want to end it. So thank you for your time and all of your thoughtful questions.

CHMN STAFFORD: Thank you, Mr. Dempsey.

All right. Members, are we prepared to discuss the various routes to see if we can agree on which one? Or I guess we could pick more than one. We can give them a main route and an alternative route.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: If I may, just sort of anecdotal story before we start looking at routes.

Many years ago I got involved in overcoming an impasse between the federal government on a critical project. The project at the time was propellors for our nuclear submarines.

Nobody would bid on them. And even though it wasn't my area of expertise, I got the call and said,

Jon, can you try to help. Foundries are in your area.

I went to the different foundries and said, Would you bid on this project?

Now a propellor for a nuclear submarine is unique. It's got to be made in such a fashion, and it's big, that it doesn't cavitate, meaning make bubbles when it's spinning at higher speeds under water because then you can spot the submarine by its trail.

And each of the foundries I went to simply said, No. There is no way you can get us to bid on this project. We don't like working with the federal government. The bureaucracy is impossible. We're not going to do it.

But one of the foundries was at least courteous when we were speaking. And I said, Look, we have to get propellors for our nuclear submarines for our own national safety. Would you consider putting in a bid? He says, No.

I said, Well, if you would consider putting in a bid, how much would a bid be for a blank number of these propellors? And he did his computations, and he came up with a number.

And I said, So would you put in a bid for that number? And he said, Absolutely not.

I said, Okay. Would you double that

number?

He says, Double the number?

I said, Yeah, just double the number. And he did.

I said, Would you put in a bid for that much? He says, That's not a reasonable bid.

I said, But would you put it in? Absolutely not. I do not want to work with the government.

I said, Okay. Double it again.

He says, Four times? Yeah.

He did. He's looking at the number. I'm looking at him. I said, Would you put in a bid? He says, That's a stupid bid.

I said, Would you put it in? He said, Still, no, I'm not interested. Don't want to work with the federal government.

I said, Double it again. He looks at that number, and he says, This number is ridiculous.

I said, Great. I'm not asking you to win the bid. I'm asking you to put in a bid because that's my requirement.

He says, Yeah, for this amount of money I'll put in the bid. I'll never get it. I'll pull it in.

Months later I get a phone call, Jon, we won the bid. I said, You've got to be kidding me.

He says, Nope. We're going to make propellors.

I said, So what was the problem?

He said, Well, with these types of propellors in order to make the propellor and get it out of the mold we have to break the mold. And dealing with the federal government who changes parameters as we're working, it's a nightmare. But for this amount of money, yeah.

A month later I get a call, Jon, we figured out a way to get the propellor out of the mold without breaking it.

The bottom line is, you're at an impasse. It's not that there's no solution. It's we haven't come to a solution. I believe this Committee will make recommendations for a solution. I don't know if it will be one recommendation or multiple recommendations.

But the requirement is there. You need the power. The City knows that. TEP wants to provide it. The question is how and what cost and what time frame.

The only issue we have is the suspense date. In military terminology that means you have to complete it by such and such a date.

What considerations are there? Well, there's always the knowns and the unknowns. There's the commercial. There's the residential. There's the -- a ton of things that you know better than I.

All I'm saying is what you have done in these two weeks we've been here is very impressive for all of you. You've made your cases.

And also a couple of hundred people who came to speak made their case. And I'm going to read one to you that says, "The concept that the State of Arizona or any of its agencies, including the Corporation Commission, would allow a privately owned utility to place high-powered aboveground electrical lines directly above residential homes is insane."

So nobody wants it in their backyard. But there still is a path forward. I commend you on all your expertise. And now I think it's up to us to take the next step. So thank you again for your professionalism even though it's been two weeks. Thank you again.

CHMN STAFFORD: Thank you, Member Gold.

If we could get the slide up on the screen of the map that shows the -- there you go. That's the one that shows the Gateway Corridor Zones and the area plans.

All right. Thank you. Well, you know

what, I think they've established that we have a need for this project. I mean, the applicant has clearly established that they have to have it, and time is of the essence.

So it's a matter of -- so we have to approve -- the Committee has to approve a route. Denial of the CEC is not an option for the Committee.

Before we get into addressing the elephant in the room, which is the undergrounding requirement, I think that I'd like the ask the members if we can -- if there's a couple of routes that we could just take off the table to start with.

My suggestion would be that routes 5 and 6 due to the issues with the railroad and the fact that if we approve either, we'd still have to approve another route as an alternate. There's kind of potential for endless delay with the railroad. I think that routes 5 and 6 are out of consideration.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I move that the Line Siting Committee disregard routes 5 and 6 in our deliberations.

MEMBER GOLD: Second.

CHMN STAFFORD: All in favor.

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: All right. 5 and 6 are off the table.

All right. So the big issue is the requirement for undergrounding imposed by City plans or the Gateway Corridor. And I guess the big driving factor for the applicant is the fact that the Commission has the policy -- I'll turn to it -- that, you know, the utilities under the Commission's jurisdiction, which TEP is clearly, is they should avoid siting -- placing high-voltage transmission lines underground for aesthetic purposes. It has to be for reliability and safety purposes or to satisfy other prudent operational needs.

It seems to me, and I'd like to hear from my fellow members about this, is that the undergrounding requirements imposed by the City relate largely to aesthetics, and they're not required for safety or reliability. I mean, the line is required for reliability. That much is clear. But whether it's aboveground or underground I think does not have an affect on its reliability or safety.

Do my fellow members have any thoughts on that issue?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: We've listened to six and a half -- no, seven and a half days of testimony that I believe supports that position that you've just stated. And therefore, it seems to me we've talked about reliability, you did. We've talked about safety, we did.

And so we're not -- those two things are, as you stated, off the table. And I would support the position that you stated about a minute ago.

CHMN STAFFORD: Okay. All right. We've talked about --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Would you restate your position, please. I was looking for something when you were talking. I apologize.

CHMN STAFFORD: Oh, I think -- I think that the undergrounding requirements do not relate to -- where's it at? I'm looking at the Commission policy. It doesn't have -- it's a policy statement to provide guidance to public service corporations like TEP.

And it says as a general matter they shouldn't -- they should avoid incurring the higher costs of undergrounding unless it's necessary for safety or reliability purposes or to satisfy other prudent

operational needs and that they shouldn't be done for to accommodate stakeholder preferences, you know, looking at aesthetic reasons.

And I think that the City requirement is to underground. I think it's they don't relate to safety and reliability or operational needs. It relates more to aesthetic choices of the City and the people that live there because they prefer not to see the lines. It looks better if you can't see the high-voltage transmission aboveground. I think that's --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I think that the Commission statement of guidance is somewhat in conflict with what we as a Committee are required to do.

My position, I was appointed to represent the public. And while safety, reliability, all of those issues are certainly primary considerations in looking out for the public, I think that visual and aesthetic and all of the issues that have been discussed here are also considerations of the public and that I have a responsibility in the position that I was appointed to to consider those.

CHMN STAFFORD: I agree. Yes, I think we have to consider that.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I agree with some of what you said. I do think that some of the Gateway Corridor goals include aesthetics. But I also heard from the City that these corridors are designed to move people and for mobility. And so these corridors should be available for pedestrian traffic, bicycle traffic, transit. And so there's other infrastructure in these corridors that may not be compatible with the power lines is what I heard.

So it's not a function of just aesthetics. I think that Tucson is trying to maintain its character, which you might call aesthetics. I think they're trying to maintain a quality of life, which I think is beyond aesthetics. And I think that some of the businesses in this corridor are probably trying to maintain some integrity in the value of their property and viewsheds like Banner.

So while I hear you on -- while I hear you on the aesthetic piece, I do think that it amounts to something larger. It is the identity of the City in these corridors that they're trying to maintain. And I think that the power lines could detract from that either from an infrastructure perspective, a quality of life perspective, an aesthetic perspective.

And so I just want to be careful that this is -- that's the only reason that these corridors exist and that we apply the Corporation Commission's guidance in a way that is respectful of the other components of what makes Tucson Tucson and a community that we're making a decision about.

CHMN STAFFORD: And I think that's all correct, but the issue is that -- and the Commission, its policy doesn't say they can't underground it. They're just -- it's to provide guidance that it shouldn't be paid for just generally through rates as the -- as a regular aboveground transmission line would be.

It seems to be -- and it specifically points out that if they want to do it, they should appoint a district pursuant to A.R.S. 48-620.

MEMBER HILL: But how it gets paid for isn't our jurisdiction, is it?

CHMN STAFFORD: No. But under the statute it does say we are to consider the estimated cost of the facilities and site as proposed by the applicant and the estimated cost of the facilities and site as recommended by the Committee.

So if -- and that's what's giving me pause. That's why we're talking about this is because it's --

MEMBER HILL: I didn't hear pause from you.

I heard some direction and position.

CHMN STAFFORD: I'm just saying we have to consider the Commission's policy because they set the rates for TEP. And then they provide this guidance to say about how it should be done.

Now, at the end of day we'll vote and we'll make a decision. And then the Commission will deal with the ramifications of that. And I just want to kind of talk through how this would work and the things we need to consider.

MEMBER HILL: Okay.

CHMN STAFFORD: Because again I think that you --

MEMBER HILL: That is a very helpful clarification. And sorry, Jennifer, for talking over the Chair.

CHMN STAFFORD: Because, you know, the factors in 40-360.06, existing plans of the state, local government and private entities. We have local government private entities here, and they've expressed their conditions. We have fish, wildlife, and plant life not so much because it's an urban setting.

Noise levels. Availability to site the public for recreation. Existing scenic areas. Historic sites and structures or archaeological sites. You know,

scenic areas, that's -- that is an aesthetic factor.

And the total environment of the area and how many lines, how many things are there that are occupying the same space.

Then we have, you know, seven, the technical practicability of achieving the proposed objective. You know, that's another thing we need to consider because TEP hasn't undergrounded any high-voltage transmission lines. They don't have any in their system. So that's another factor.

And then, like I said, the estimated cost. And that's -- when you look at that and that's like -- I think this is what the Commission's getting at with its policy is you look at --

MEMBER HILL: So the Commission doesn't cite any of the other criteria that the state law requires us to consider. They have just -- they have just included tech and cost is that what I'm hearing from you?

CHMN STAFFORD: Right. Yes.

MEMBER HILL: Okay.

CHMN STAFFORD: The policy statement addresses the costs of undergrounding. And its policy is that it should be -- you know, it's fair to make all the ratepayers of a utility pay for the cost of a line that

doesn't necessarily serve them individually but it serves -- it enhances the system reliability and improves the -- all the service as a whole for everybody.

Whereas undergrounding tends to benefit specific persons near to where the line is. But everyone -- but this is like for reliability it benefits all the customers of TEP, this line will. And so they'll pay -- they'll all pay for that. It's the -- it's the marginal costs of the undergrounding that the Commission is concerned with that policy.

And with just looking at the facts, especially when you look at the comparisons from the TEP Exhibit 31, if you -- just looking at the proposed route, as proposed by the applicant, the cost of it -- I didn't add what they came up -- but the difference between the cost of undergrounding if -- if, you know, you have to underground pursuant to the Gateway Corridor and the University Area Plan, you're looking at the total cost of the project is, like, $63,000,699 and 35 cents more. That's -- I think that's what the policy of the Commission is intended to address.

MEMBER LITTLE: Mr. Chairman.

MEMBER HILL: Thank you for that. I understand that. I just --

CHMN STAFFORD: Yes, Member Little.

MEMBER HILL: Go ahead.

MEMBER LITTLE: The decision that adopts this policy, was that -- is that a ratemaking case? I can't remember.

CHMN STAFFORD: No. It was a generic docket about line siting policies. But this is more of a ratemaking policy than a line siting policy. And --

MEMBER LITTLE: I understand that. That's why I'm asking that question.

CHMN STAFFORD: Right. It was couched in the -- it's the docket was a line siting generic docket. That's where they -- because they issued along with two other policy statements. One about using hybrid meetings, which we're doing right now, and then the other one was -- what was it?

MS. HILL: Substations, I believe, Mr. Chair.

CHMN STAFFORD: Yes. These are saying that the substations are not part of the Committee and the Committee's jurisdiction because they're not included in the definition. They are excluded. Which --

MEMBER LITTLE: So does this policy -- well, I don't think it does. But this policy does not supersede state law; correct?

CHMN STAFFORD: No. No it does not.

But the policy --

MEMBER LITTLE: We exist under the state law.

CHMN STAFFORD: Correct.

MEMBER LITTLE: And it's what it says explicitly.

CHMN STAFFORD: Correct.

And under state law, like I just said, factor subsection number 8 requires us to consider the cost of the facilities and site proposed by applicant compared with what the Committee adopts.

And so my point is that if we -- and that's assuming that -- well, the evidence is in the record. These numbers I think are fairly reliable. And we're going to rely on them even if they're -- I guess we'll have to weigh them, but they're in the record.

So based on the evidence presented and just looking at the preferred route, but the cost difference -- okay. There's several things. If we make the finding that's requested under the statute by the applicant, and that means that they don't have to comply with the City regulations, and I believe Mr. Lusk pointed out that may be up in the air, the statute's clear that allows us to issue the CEC, notwithstanding those requirements because the first part of that statute says

we have to -- every CEC we issue has to have as a condition that they must require with all applicable ordinances, master plans, and regulations of the state county, or incorporated city or town.

So if we make the finding they don't have to comply with it, then we can issue the CEC. That much is clear from the statute.

And there's a difference of opinion between what the applicant says that they -- they interpret that to mean they could build without complying with those undergrounding requirements. And the City says, well, they disagree. And I guess it would ultimately be up to a court to decide whether they could build without compliance.

But it does allow us to issue the CEC -- that much is clear -- without requiring them to comply with those ordinances, plans, or regulations.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I'm looking at Route C.

Like Member Little I'm also here to represent the people.

And I'm looking at Route C. And I see Route C is nobody's favorite and seems to have the most impact on residential areas.

I move that to make the process of choosing what we're going to do more simple like we removed routes 5 and 6, could we also remove Route C from consideration?

MEMBER HILL: Second. If that's a motion, I'd like to second it.

CHMN STAFFORD: All in favor.

(A chorus of "ayes.")

MEMBER RICHINS: Can you repeat the routes, please?

MEMBER GOLD: Route C.

MEMBER RICHINS: Just Route C? You didn't say another numbered route?

MEMBER GOLD: No.

CHMN STAFFORD: 5 and 6 have already been eliminated. He repeated those ones.

MEMBER RICHINS: Oh, okay. That's what it was.

Okay. So just we're just voting on Route C?

MEMBER GOLD: Route C.

CHMN STAFFORD: All right. So we've knocked three out of consideration.

So we're down to A, B, D, and then 1, 2, 3, 4.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Being partially color blind it's difficult for me to identify clearly Route C. Would someone use the magic ball and trace it for me? I don't want to look at it on there. I want somebody to trace it on the map, if they would, please.

CHMN STAFFORD: Can you see the cursor?

MEMBER KRYDER: Okay.

CHMN STAFFORD: It starts at DeMoss Petrie substation.

MEMBER KRYDER: Okay. Into your mic.

CHMN STAFFORD: I can't do both.

MEMBER KRYDER: Oh, you can't do both. Okay.

MEMBER HILL: It starts at the DeMoss Petrie Substation, and it runs along Grant, and then turns south onto Stone Avenue and across Speedway Boulevard.

MEMBER KRYDER: Okay.

MEMBER HILL: And then bops up through the neighborhood along Park and then across Adams to the Vine Substation.

MEMBER KRYDER: Okay. Thank you.

MEMBER HILL: Teamwork makes the dream

work.

MEMBER KRYDER: Thank you very much. That is incredibly helpful.

CHMN STAFFORD: Thank you for the assist, Member Hill.

I can't hear you, Mr. Lusk.

MR. LUSK: I don't think my mic is on. Oh, maybe it is on. Sorry.

Just as a point of order, was there a vote on the last motion?

CHMN STAFFORD: Yes. We've eliminated 5, 6, and C from consideration.

MR. LUSK: Thank you. I just didn't hear. It sorry.

CHMN STAFFORD: Okay. All right. Now, there's been talk about the Supreme Court case, the APS v. Paradise Valley. And it affirmed the City's right to require undergrounding of utilities.

I just wanted to point out that they did reference A.R.S. 40-360, but they found it not applicable because the lines that they were talking about in that case were 12kV up to 69kV, which are below the 110kV threshold for jurisdiction of this Committee and the Commission on the matter. And they said that -- so that wasn't applicable.

And they said, "In the absence of a clear statewide preemptive policy not shown here, local governments can prescribe undergrounding within their boundaries."

So I guess an issue of law before the Committee is does that finding -- is that a preemptive policy, or does it just allow the Committee to issue the CEC?

MEMBER RICHINS: Chairman, I think the law that talks about our requirement to consider local plans is -- isn't that prevailing?

CHMN STAFFORD: It's a factor to consider.

MEMBER RICHINS: Is that part of that factor?

CHMN STAFFORD: Yes, it is.

MEMBER RICHINS: Yeah. And, I mean, I think I'd be less interested in the Paradise Valley case and more interested in how our law has been interpreted in that issue.

I have a real reluctance to supersede local authority in this particular matter because there's a lot of unique circumstances. And just as we're considering ACC policy where they really hinge that policy on putting aesthetic costs into the ratemaking, we also have policies that were shared with us by the City of Tucson

that they have lots of policies as well.

And so, you know, which policies do we ignore, which laws do we get to -- you know, and so if we're going to accept the ACC policy on aesthetics and rates, then we also have to accept the University Area Plan, which is a policy not a law, the -- all these other plans. So, you know, we have to be fair I think.

And so for me, you know, I would prefer to be completely silent on the matter of undergrounding or not and let's decide our routes. And I think that the applicant and the City of Tucson have a fair amount of work to do on the issues outside of that.

And if the City -- they need to come to some agreement on whether or not they're going to be required to underground and how that's going to get paid for because that's governed in their franchise agreement not by us pretty explicitly.

So, you know, for us let's stay focused on routes and less so on undergrounding even small portions of undergrounding until we get the routes decided, and then let's maybe address those other issues if we would like to.

However, I'm going to state my reluctance to do that. I've never required an applicant to underground. I won't require an applicant to

underground. But I do respect local jurisdiction in this particular matter in this unique circumstance.

CHMN STAFFORD: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: And following along with what Member Richins has said, I would like to recommend that we eliminate -- I would like to recommend that we eliminate routes 2 and 3 extending from the Vine Substation down to Kino because they do the same thing.

They go through a whole bunch of residential areas. They go on circuitous routes and nobody seems to like them. The hospital doesn't like it. It interferes with the -- it bypasses a portion of the U of A but not all of it. I just don't think that those routes should be considered. We have far better ones to consider.

CHMN STAFFORD: Which route? You're talking about 2?

MEMBER GOLD: 2 and 3.

2 goes from Vine to Park down to Euclid. Then cuts into Highland, zigzags down to Kino.

And Route 3 -- and I may have the numbers in order -- starts at Vine, drops down I think that's Adams Street and Vine Street, but I'm not sure of the

names of them. Cuts across the Gateway Corridor at Campbell, goes down Tucson Boulevard. Then cuts again cross the Gateway Corridor or parallels it down to Kino.

I think those are routes that we could easily just discard as not being efficient and there's better routes available to do less -- less harm at least to residents, the University Area Plan, and the hospital's preferences.

MEMBER HILL: Mr. Gold.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would agree with the exception of the fact that I would like to see the section of Route 2 between Vine and Campbell remain under consideration in support of Member Hill's suggestion that we alter Route 1 from Vine to Campbell --

CHMN STAFFORD: Right. That would -- okay.

MEMBER LITTLE: -- using Route 2 direction.

CHMN STAFFORD: Right. I think just taking the entirety of Route 2 out doesn't preclude us from saying, okay, we want to amend Route 1 to encompass that section of Route 2.

But 2 overall as a route is what Member Gold is proposing to remove from consideration.

MEMBER GOLD: Yes, Mr. Chairman.

CHMN STAFFORD: Okay.

MS. DE BLASI: Mr. Chairman. Michelle De Blasi.

CHMN STAFFORD: Yes, Ms. De Blasi.

MS. DE BLASI: Just a point of clarification because I want to make sure all routes can be, you know, considered.

Mr. Barkenbush testified that Banner does not have a position on routes 2 and 3. So just want to make sure that's clear.

CHMN STAFFORD: All right. Thank you.

MEMBER GOLD: For the benefit of -- okay.

Do any of routes 2 or 3 touch that route that the hospital didn't like, that loop?

CHMN STAFFORD: No.

MS. DE BLASI: No, Member Gold, they do not.

MEMBER GOLD: Okay. In that case I just think the routes are extremely circuitous going through residential areas, crossing a Gateway Corridor at least twice that's not necessary for anything else. I would say these are two routes that would help us if we just excluded them.

CHMN STAFFORD: Which one is that besides 2?

MEMBER GOLD: 2 and 3.

CHMN STAFFORD: 2 and 3.

MEMBER HILL: Mr. Chair, I make a motion that we exclude the totality of routes 3 and 2 for consideration as a route for the CEC.

MEMBER GOLD: I guess I second it.

CHMN STAFFORD: All in favor?

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

MR. KRYDER: Mr. Chairman. Oh, no, sir.

CHMN STAFFORD: Hearing none, 2 and 3 are removed.

Yes, Member Kryder, you have a question?

MEMBER KRYDER: Just for clarification. We've eliminated some. I want to make sure that I'm up to speed on which ones are still on the table.

CHMN STAFFORD: All right. That's a nice segue. Thank you.

So there's obviously the preferred Route B-4 is still an option.

And A-1 is an option.

And then we have D is also an option.

So let's talk about those. We have -- I'm going to look at the place here.

So let's talk about the northern portion first where we have the -- for the DeMoss Petrie Substation to the Vine Substation.

The preferred route is B. So we're coming down Grant. They all have to come down Grant. That's just how to get there.

So the issue's going to be where do you head south? Is it going to be on Park or on Vine? And they're both through neighborhoods.

I guess -- well, I guess the third one is 1 -- is D because that goes all the way to Campbell and down, but then you have to go along Vine into the hospital drive into the substation.

But that's the only route that completely avoids residential areas.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I have to admit I don't have a preference between A and B. I feel like giving the flexibility to the applicant and the City to work with that neighborhood because that -- both routes affect the neighborhood, working with that neighborhood to figure out what works best for the utility and the neighborhood or the City is probably the -- a flexibility that I'm willing to offer. I don't have a preference there.

CHMN STAFFORD: Okay. And then looking at it, I mean, coming down Vine is certainly the most direct route, but I think for me the big striking difference that I saw was that Park already has considerable -- it has the 46kV subtransmission lines already running down the street. Whereas on Vine, there are no transmission lines running parallel, but they do cross perpendicularly through the alleyways.

But I guess Vine is the more direct route, but it would put poles now where there aren't any poles. Whereas the Park Avenue route has existing poles.

But then, again, with the Route B you're going to add new poles to Adams Avenue to get to the substation. So there's going to be new poles somewhere either way.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Unless, of course, it's all undergrounded.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: I don't think it's -- these areas aren't required to be undergrounded based on, I guess, unless the University Area Plan would apply.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: First of all, would you

repeat that so I can understand it.

CHMN STAFFORD: Okay.

MEMBER GOLD: And, second, did you say that route Vine, B, has utility poles on it already or Park has utility poles on it?

CHMN STAFFORD: Park has utility poles on it.

MEMBER GOLD: So there are no utility poles on Vine right now?

MEMBER HILL: Or Adams.

CHMN STAFFORD: Or Adams.

MEMBER GOLD: Or Adams, which is?

CHMN STAFFORD: From the substation to Park.

MEMBER GOLD: Substation to Park.

CHMN STAFFORD: To your left. There you go. Yes.

MEMBER GOLD: Okay. So if we take line Route B out.

CHMN STAFFORD: A.

MEMBER GOLD: This is A?

CHMN STAFFORD: No. That's B.

MEMBER GOLD: That's B.

CHMN STAFFORD: B is on Park.

MEMBER GOLD: So B has no --

CHMN STAFFORD: B has poles.

MEMBER GOLD: B has poles? A has no poles?

CHMN STAFFORD: Correct.

MEMBER GOLD: So B doesn't --

MEMBER HILL: I just want to correct the record that B does have sections that do not have poles. Like Adams Street does not have poles.

CHMN STAFFORD: Yes. But we're talking about Park Avenue from Grant to Adams there's an existing 46kV line. That's where, remember, during the tour, we drove down, and on the east side there's the existing 46kV structures that would be removed and replaced with the slightly taller 138kV structures that would be taller and further apart. But then you'd have to add new poles on Adams. So you're going to have to add new poles somewhere in there either way.

And then because where, like, Park turns to Adams, that was the apartments -- or they had surfboards mounted to the wall on the outside. I remember seeing that thing several times.

MEMBER GOLD: Mr. Chairman, then for the sake of reducing options, can we have just members' opinions do we like the Park Avenue route?

Do we like the Vine Avenue route?

They appear to be the same, just one block

apart from each.

One has poles. But if we go across from Park to the substation, we're adding poles. But if we go down on Vine Street from Grant, we're adding poles.

CHMN STAFFORD: Right. So poles are added either way. The only -- I think that would make -- and B is the preferred route. I think --

MEMBER GOLD: Let's delete Route A.

CHMN STAFFORD: Huh?

MEMBER GOLD: Let's delete Route A.

CHMN STAFFORD: I'm not ready to eliminate Route A yet.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would just like to say that I am also in favor of approving both A and B.

C I have mixed feelings about.

But A and B to enable the utility to work with the neighborhoods --

CHMN STAFFORD: Right.

MEMBER LITTLE: -- to choose a route.

CHMN STAFFORD: And I think that -- another thing that seems to make A slightly preferable is that -- the fact that they're retiring their 46kV system, so the pole -- the existing poles on Park would leave either

way, I believe.

Is that accurate, Ms. Grabel?

MS. GRABEL: Can you repeat that, Mr. Chairman?

CHMN STAFFORD: If Route A were selected and the line were running down Vine to the Vine Substation, because I remember when we looked -- did the tour of Park there's existing 46 poles and those would be used or I think replaced with the 138kV poles, but they would be taller and further apart and that the 46 would be undergrounded and the other things that are there would be undergrounded, but the 46kV is going to be -- that system's going to be moved out eventually.

So at some point, if you add poles to Vine, at some point the poles on Park would be taken down.

MS. GRABEL: I'm going to let Mr. Bryner respond.

MEMBER LITTLE: No.

Mr. Bryner: So it would only be the 46kV portion of those poles, not -- they have the distribution underbuild, that would remain if we didn't go down that route.

CHMN STAFFORD: Okay. So maybe something to consider would be a condition that they underground the distribution there to eliminate the -- so you'd have

a -- Park would gain and Vine would have -- Park would lose poles and Vine would gain poles, but they'd still have -- they'd still have the -- that would be the 14kV that was going to be in there, right? That's my recollection. I think that's correct. That's the distribution that would remain because they're taking the 46kV out.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: TEP prefers the Park route.

CHMN STAFFORD: Correct.

MEMBER GOLD: Why does TEP prefer the Park route over the Vine route?

CHMN STAFFORD: I believe the record showed that it was -- I think the fact that the poles were already there was a factor in it.

Mr. Bryner: So that was a factor was the fact there are poles along Park, there's not on Vine. Also a community preference is especially for Jefferson Park is Park over Vine.

MEMBER GOLD: Then, Mr. Chairman, I would move that we delete the Vine route, you know, for the sake of making shorter recommendations. So that would mean delete Route A.

MEMBER KRYDER: Second.

CHMN STAFFORD: All in favor.

(A chorus of "ayes.")

MEMBER HILL: We get to discuss, right, before we vote?

MEMBER LITTLE: Wait. How about opposed?

CHMN STAFFORD: Opposed?

(A chorus of "ayes.")

MEMBER HILL: Aye.

MEMBER LITTLE: Aye.

CHMN STAFFORD: Just one opposed. All right. So we're down --

MEMBER LITTLE: Two. Me too.

MEMBER RICHINS: Roll call.

CHMN STAFFORD: Roll call vote on removing A.

Member Kryder.

MEMBER KRYDER: I'm sorry?

CHMN STAFFORD: Roll call vote on removing A.

There was some confusion with that last vote.

MEMBER KRYDER: Yes.

CHMN STAFFORD: Use your mic, please.

MEMBER KRYDER: Yes. I favor coming down Park per the recommendation from TEP.

CHMN STAFFORD: Member Mercer.

MEMBER MERCER: Yes.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: Yes.

CHMN STAFFORD: Member Drago.

MEMBER DRAGO: Yes.

CHMN STAFFORD: Member Hill.

MEMBER HILL: No.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: No.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Explain my vote, Mr. Chairman?

CHMN STAFFORD: Sure. Absolutely.

MEMBER LITTLE: As a utility planner, I -- in my past life I prefer more direct routes all things considered, and A is a much more direct route.

It also I don't believe installs any more poles along a more accessible route than B does because of the section along Vine. So I am against eliminating it at this point.

CHMN STAFFORD: Member Somers.

MEMBER SOMERS: Sorry. I was having a little trouble. Aye.

CHMN STAFFORD: For the removal of A?

MEMBER SOMERS: Yes.

CHMN STAFFORD: Okay. Well there we go. A is removed.

MEMBER HILL: Mr. Chair, did you vote?

CHMN STAFFORD: Okay. Well, I'll vote to not remove it then.

MEMBER HILL: I just didn't --

CHMN STAFFORD: It was five to three. So that was by -- so the "ayes" have it.

So I guess the last one is going to be Route D.

MEMBER KRYDER: Will you summarize the vote for me, Mr. Chairman, please. Brief interpretation.

CHMN STAFFORD: Yes. Members Kryder, Mercer, Gold, Drago, Somers voted to remove A from consideration.

And then Members Richins, Hill, Little, and Stafford voted to keep it.

The "ayes" have it.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: For clarification, I would vote for one or the other. And my purpose was to simply narrow down the choices.

So had it been the other way around, I

would not have objected to that either, just for the record.

CHMN STAFFORD: All right. Then so we're down to two for the first top of the route. We have it's going to be B, the preferred route, or D.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Those are the two left.

Yes, Member Gold.

MEMBER GOLD: Route B goes through a residential area, and I represent Route B goes through residential areas but bypasses a Gateway Corridor.

CHMN STAFFORD: Yes.

MEMBER GOLD: The Gateway Corridor is a commercial area, but that route bypasses almost all of the residential areas.

CHMN STAFFORD: Yes.

MEMBER GOLD: If I'm correct in that assumption, I would suggest that it is more important for people who live in an area and have to look at those overhead lines every day. They are closer to the electromagnetic flux.

There weren't lines in a lot of those neighborhoods that would now be placed in those neighborhoods. They would be affecting property values whether we want to admit it or not.

A lot of those neighborhoods are, I guess, historic. I may not be using the right word. And they pay less in rent and have smaller houses to keep them historic, which I think puts them in a lower income area.

There's a lot of reasons why a lot more people are in those areas who would be affected directly as opposed to the commercial area that we see already is a commercial area, looks like a commercial area, would be affected by people who transit it on a daily basis, but we would have large poles high up at great distances.

I don't know that it would affect the shopkeepers. It would be farther from the buildings that are in that area. And I think it's a good option to keep both. One is through residential areas. One is through commercial gateway areas.

CHMN STAFFORD: I would agree. I would suggest that we keep A and D both as -- no, B and D, excuse me, as options so there's one that goes through the neighborhood and one that circumvents the neighborhood, although it will annoy the hospital, but it doesn't run through neighborhoods.

So I think for now we'll keep those two options on the table, Members? Okay.

MEMBER GOLD: Mr. Chairman, I make a motion we keep option B and D on the table.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, okay, B and D, they are for the northern half of the route.

Now. Moving on, we have -- for the rest of it, we have still have routes --

MEMBER GOLD: 1 and 4, Mr. Chairman.

CHMN STAFFORD: 1 and 4.

MEMBER GOLD: Let's look at those.

CHMN STAFFORD: And, Member Hill, you had a suggestion. Are you going to proposed to change the 1 to include the section of 2 that runs from the substation, the Vine Substation, to Speedway over to --

MEMBER HILL: Yeah.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: I would suggest that we have a 1 -- Route 1 and a Route 1-A that is modified as Member Hill suggested.

This would give the applicant the option of

using 1-A if they could not negotiate something with the hospital to use. What is that? I can't remember the name of that street.

MEMBER GOLD: Where is 1-A?

MEMBER LITTLE: Not Ring Avenue, but the one that's north of that, but choose that route, the Ring route.

MR. LUSK: I think that's Lester.

CHMN STAFFORD: That's Lester.

MEMBER LITTLE: Lester. Thank you.

CHMN STAFFORD: And, again, I thought the point of doing that was to avoid going into the neighborhood. If they have to go to Lester instead of Ring, then they're in the neighborhood anyway.

MEMBER LITTLE: Right. But my point is that if it looks like from a timeliness perspective they would be better off to choose that little portion of what was Route 2, it would at least give them both options if Route 1 was selected.

So I move that we have Route 1 and Route 1-A on the table.

CHMN STAFFORD: Can we call it something other than 1-A because 1-A would be a route on both sections --

MEMBER LITTLE: Oh, yeah. That's right.

CHMN STAFFORD: 1.02?

MEMBER LITTLE: Or 1.1?

CHMN STAFFORD: 1.2 or 1.1?

What was that, Member Richins?

MEMBER RICHINS: I'm just popping off.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: Can we use the laser to outline both routes we're proposing or Member Little is before we vote.

CHMN STAFFORD: Yeah, but the Route 1.1 would be -- instead of coming from the substation on Vine and heading east along Ring Road it would head south on Vine, I believe, and jog over to Maple and then down.

MEMBER HILL: To Speedway.

CHMN STAFFORD: There's another street name. I can't remember what it was.

MEMBER HILL: It's Cherry.

CHMN STAFFORD: Cherry to Speedway and then over to Campbell. And then the rest of the route would be the same as Route 1.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Route 1.1 that Member Hill is proposing does not appear to go through residential

areas. It appears to go through the university whatever that --

CHMN STAFFORD: Yes.

MEMBER GOLD: -- zone is called. It's the university -- what's that area called? The University Plan?

CHMN STAFFORD: It's the University Plan. It's University Area Plan. It's indicated by the right descending hashmark.

MEMBER GOLD: So this goes further through -- well, actually it's a little more circuitous.

Question to TEP, is there a reason why you did not prefer Route 1.1?

MS. GRABEL: So any route that goes down 1 is going to be on the Gateway Corridor, and that presents a significant challenge to building that line without a finding from this Committee.

And so our preferred route is a route that we can construct not in the Gateway Corridor, at least that requires the minimum amount of special exceptions.

So, I mean, I would suggest to this Committee if you do choose a route that runs parallel down a Gateway Corridor, which either 1 or 1.1 do, that you either also make a finding or give us an alternative that we can build more cost effectively.

MEMBER GOLD: Still not answering my question.

MS. GRABEL: Okay.

MEMBER GOLD: Why did you choose the direct east-west route on Route 1 instead of going down Vine to that little other street instead of going this way?

MS. GRABEL: I gotcha. Go ahead.

CHMN STAFFORD: I'm going to go out on a limb and guess it's because of the undergrounding cost because it's in the University Area Plan, and they would be required to underground it to go that way.

Mr. Bryner: So to clarify, we're talking 1.1 versus 1. Why did we not choose 1.1?

MEMBER GOLD: Yes.

Mr. Bryner: Okay. It was really simply put that if we were allowed to go down Campbell in an overhead fashion, we figured why wouldn't we go down all the way surface we could go and then cut in the most direct route as opposed to winding through on the 1.1 route. No other reason.

MEMBER GOLD: Thank you.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would agree with that. However 1.1 does take care of the issue with the

hospital.

CHMN STAFFORD: Yes, that is a --

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Might I ask Ms. De Blasi what her preference is for the hospital?

MS. DE BLASI: As opposed to route -- let me make sure I'm getting this right.

MEMBER GOLD: Let me show you. I'll get this thing working. As opposed to going directly from here to here --

MS. DE BLASI: Correct.

MEMBER GOLD: -- go circuitously down away from the hospital and then cut in here.

MS. DE BLASI: Right. I was trying to pick up the -- where we are with the route numbers. For 1.2 or --

CHMN STAFFORD: 1.1.

MS. DE BLASI: 1.1, for sure the hospital would prefer to not go along Ring Road for all the reasons enumerated, particularly related to condemnation delays. That would not be a route that would impact the hospital operations.

MEMBER GOLD: So if I understand that correctly, the hospital prefers 1.1?

MS. DE BLASI: Correct.

MEMBER GOLD: And TEP just chose 1 because it was a straight line?

MS. DE BLASI: And to the extent that any of the Campbell corridor within that Gateway Corridor Zone caused delays, I think Mr. Barkenbush's testimony stands.

But in terms of between Ring Road and 1-A definitely -- or 1.1 definitely the hospital would prefer 1.1.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: In that case I would suggest going along with Member Little's suggestion, and we add a 1.1 as an option.

CHMN STAFFORD: I agree.

Member Hill?

MEMBER HILL: I agree.

CHMN STAFFORD: Member Richins?

MEMBER RICHINS: Sure.

CHMN STAFFORD: All right. He indicated he supports that.

I don't think we need to take a formal vote, but at this point now we're just trying to talk about -- talk through what we're doing.

MEMBER HILL: Mr. Chair, I do want to check in with Member Little because I heard her suggestion a little bit differently, and I just want to make sure I understood it.

Member Little, you might have even made a motion when I -- when I reflect on the conversation.

Do you want to -- was it that you wanted to preserve the opportunity to do -- to include Route 1 and 1.1 to provide more flexibility to the utility and the City to figure out what works best, or did you just intend to add Option 1.1?

MEMBER LITTLE: I intended to add 1.1 but also retain 1.

MEMBER HILL: That's what I heard.

CHMN STAFFORD: Okay.

MEMBER LITTLE: And so we would have both, 1 and 1.1.

CHMN STAFFORD: And then --

MEMBER LITTLE: And 4 is still on the table.

CHMN STAFFORD: And 4. Yeah, I think we should keep 4 on the table as well. I think that should be --

MEMBER LITTLE: Oh, absolutely.

CHMN STAFFORD: Yes.

MEMBER LITTLE: Absolutely.

MEMBER HILL: I agree.

CHMN STAFFORD: Okay. All right. So we have -- it looks like we're aligned -- for the upper alignment we're looking at B and D, and for the lower we have 1, 1.1 and 4; correct? Is that --

MEMBER KRYDER: I concur, Mr. Chairman.

CHMN STAFFORD: All right. Excellent. All right.

Well, that's bringing us --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would like to make a motion if it's appropriate that we include in the CEC all of the routes that you have just -- that you just said are still on the table, that we actually approve all of those routes, which would give the applicant and all parties flexibility, which I believe they need under the circumstances of this case.

CHMN STAFFORD: All right. That's -- did you want to make the motion?

MEMBER LITTLE: Yes.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: One second. She's about to make a motion.

MEMBER LITTLE: I did.
CHMN STAFFORD: Okay. You did?
MEMBER LITTLE: Yes.
CHMN STAFFORD: Yes. Thank you.
MEMBER LITTLE: Yes.
CHMN STAFFORD: Member Kryder.
MEMBER KRYDER: I need to hear the motion. I was thinking along a different line.
CHMN STAFFORD: Okay. Her motion is that we keep Routes B and D, 1.1, 1, and 4 as the routes for the Committee to approve.
MEMBER HILL: So I'll second that if it is a motion.
CHMN STAFFORD: It was.
MEMBER KRYDER: Thank you very much. That clarifies it for me, and that also takes care of my question.
CHMN STAFFORD: Okay. Further discussion?
MEMBER GOLD: Yes, Mr. Chairman.
CHMN STAFFORD: Yes, Member Gold.
MEMBER GOLD: If we include B, D, 1.1, 1, and 4, can we also state that undergrounding is still on the table?
CHMN STAFFORD: We're going to have to circle back to that. That's a whole -- I think we need

to -- we'll have to vote and discuss that because I think Route 1 and 1.1 without that finding aren't going to be viable options.

MEMBER LITTLE: Right.

CHMN STAFFORD: So it doesn't make any sense to include them as an alternative without the finding, I think.

But let's -- we're coming up on the noon hour, and I think the court reporter is ready for a break. I know I am.

And so now we've narrowed the scope of the routes we're looking at, so we can focus our discussions more on the implications of undergrounding versus not undergrounding and then what the will of the Committee is going to be to make a finding or not make a finding. Because that's going to be --

MEMBER LITTLE: Mr. Chairman, we need to vote on --

CHMN STAFFORD: One second, Member Little. I'm still making a point.

Because the thing is if we end up not making the finding, there's no point in keeping routes 1.1 or 1 on the table.

MS. DE BLASI: Mr. Chair, I think that would also include Route D.

CHMN STAFFORD: Yeah. Yes. Well, I think also D, yes. Because if we don't -- if we do make the finding, we are in reality only approving the preferred route, and so that's -- that'll be the next step I think of our analysis.

MEMBER GOLD: So by accepting B, D, 1.1 and 4, we're not precluding the other option of an undergrounding?

CHMN STAFFORD: Well, I mean, the thing is some of --

MEMBER GOLD: We're discussing the undergrounding.

CHMN STAFFORD: Right. We haven't -- we haven't -- the Committee hasn't decided whether to make the specific finding requested by the applicant that the undergrounding requirements are unduly restrictive and not feasible in light of current technology or available technology. I have to look at the statute, but, yeah, I think it's pretty close.

That's -- we're going to have to vote and make that determination. And once we do that -- and like I just pointed -- my point was that if we do -- do not make the finding, then it's I think 1.1 and 1 are both really not very viable options. But we're going to talk about what that looks like and then what potential

implications of that are.

So but think we need to -- I think it's time for the lunch break. Let's go ahead and -- we'll do that.

MR. LUSK: Mr. Chair, I think --

CHMN STAFFORD: When we come back, we'll have that discussion.

Yes, Member Lusk.

MR. LUSK: Not yet.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: I think Member Little had a question as to whether there was an actual vote on the last motion.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I don't believe we voted.

CHMN STAFFORD: For?

MEMBER LITTLE: The motion I made and Member Hill seconded.

MEMBER GOLD: She's correct.

CHMN STAFFORD: What was the motion again?

MEMBER LITTLE: That we keep -- keep Route B, Route D, Route 4, Route 1, and Route 1.1 on the table.

CHMN STAFFORD: Oh, yeah, we had -- I thought it was moved, seconded, and we were in the middle

of further discussion. I hadn't called for the vote yet.

MR. RICHINS: That's correct.

MEMBER LITTLE: Yes.

CHMN STAFFORD: Okay.

MEMBER RICHINS: She's calling your question is what she's doing.

MEMBER LITTLE: Yes.

CHMN STAFFORD: Yes. Yes.

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Okay. None.

The motion carries.

We have Options B, D, 1.1, 1, and 4 under consideration.

All right. Anything further before we take a break from the members?

Hearing nothing, we stand in recess.

(Recess from 12:01 p.m. to 1:32 p.m.)

CHMN STAFFORD: Let's go back on the record.

Now we're going to discuss the request by the applicant for a specific finding that the undergrounding provisions are unreasonably restrictive.

Member Somers.

MEMBER SOMERS: I am here.

CHMN STAFFORD: As a sitting city council member, I'm interested in your perspective on this.

MEMBER SOMERS: You know, my perspective on this as a sitting council member is I don't like the idea of this Committee even becoming involved in this.

I know -- the issue I have is that the local government, the government that's closest to the people, who -- this is important to them, are duly elected officials who create these ordinances, that's where this argument really should be had.

There's -- we heard a lot of testimony about cost and aesthetics, but what we didn't hear a lot about was arguments about, you know, how economic -- a little bit more on economic development.

There's some comments that are made in the exhibits presented by the City of Tucson where the city council members laid out some of that, and how we either hang or underground power lines really affects economic development and the prosperity of the community beyond the aesthetics.

But I think this really, the best place for this argument to be had is with the City itself. And part of one of the testimony by the applicant was that we

couldn't get the City to give us permission to put a line through here.

But then the City would come back with, well, we can't do that until we know what the route is. And that's the unfortunate truth. There's a cart-horse problem here. I think once this Committee has settled on making a -- making a determination of the route, I think then the City process that was put in place to provide relief should it prove to be either technologically or financially unfeasible to underground this line, can play itself out in a much more rapid fashion than what we have seen before.

And based on the ordinance or what I had discussed yesterday is that clearly it showed that both technological and financial considerations would be made in making the decision whether something had to be undergrounded or not.

I'm very -- very wary of the Committee -- none of us are elected to the Committee, we were appointed. Having a Committee like this make that determination, I don't know, it speaks a little bit to the discussions of shadow government that everybody's really concerned about.

Let this play out in the public sphere really where it belongs, and I understand the angst of

Tucson Electric Company and not having that degree of certainty.

But this -- there's no question that this system needs to be upgraded. It is woefully inadequate for 21st century economic development, the technologies that are emerging, everything, you know, everything from the economic development and new technologies, data centers that drive our everyday life, half the people seem to have a plug-in car nowadays or soon will, and the systems that created those legacy systems that are in existence really do need to be replaced. So that part I support.

I think it's imperative that the City of Tucson move this through their process as quickly as possible and find an agreement that is satisfactory to all the parties, the residents and the community and the power company so this project gets done.

But I would hope that this Committee treads a little bit carefully on anything that would look like we're making a decision towards that. Let's focus on the best route and a route that has flexibilities for the party to work with so they can get their job done.

So let them do their jobs is what I would think. Thank you, Mr. Chair.

CHMN STAFFORD: And so I had another

follow-up question for you. How does City of Mesa handle the cost difference between undergrounding and overhead?

MEMBER KRYDER: A little closer into your mic.

CHMN STAFFORD: How does the City of Mesa handle the cost difference between undergrounding and overhead, because I think that is kind of the crux of the issue here is that the utility, I think they're perfectly willing to underground any and all facilities that the City requests as long as the difference in cost is picked up by the City and not passed through to ratepayers.

And my understanding with the SRP undergrounding, I think the difference was paid for either by Intel or -- oh, Chandler? Intel and Chandler. And then I think there was some also undergrounding in Mesa for the data center out there.

Do you know how they -- and they had to underground some lines for that, too. Do you know how that was handled, Member Somers?

MEMBER SOMERS: Again, that's going to be a decision between the parties. Because the data center, I mean, that's a private entity. So they were going to -- they're going to make that agreement with the private company to underground that. We have a substantial number of new power lines going up actually not too far

from my house that -- they are aboveground. But they're up against a freeway and there are a number of lines that are aboveground there. It's a corridor that's existed for a very long time.

So that really hasn't been an issue. Where we have seen any undergrounding, that was between the two parties.

But, again, Tucson being a party to this, I agree if you're going to -- if they're going to underground it, then that has to be part of the discussion between the City of Tucson and the power company on how that's going to get paid for.

Because I do believe we heard some testimony about private entities are able to underground power if they pay for it. So whether we should wade into that conversation or just kind of push it back on their plate, where I think firmly it belongs.

If this were in Mesa and we wanted it undergrounded I think this would have to be something the City of Mesa discusses with SRP on how we are going to pay for it.

Having this Committee make a recommendation, I just -- I don't think that's the right direction to go. I think their thing is to just, based on what we do well -- well, mostly what you all do well,

I'm just joining you, to select a route, give enough flexibility in that route so that the power company can get the lines up and then let them hash it out with the City.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: Member Somers and I served, overlapped a couple years on the Mesa council and there is a unique tale I think within what he's trying to say. Part of Mesa is Mesa Electric Company, so the City owns its own electric company. And so, of course, you know, it's ratepayers, taxpayers, they're all the same.

CHMN STAFFORD: Exactly.

MEMBER RICHINS: An instructive tale I think in this instance is when we did the rebuild of Mesa Drive from US 60 to Main Street, we had set a general policy that the City of Mesa electric utility would underground when other -- when happening with other projects. So when we'd open the street up we'd do all that kind of stuff. So, but we recognized an economic and aesthetic and evaluation benefit to the city for those projects.

The poles come right off -- as TEP has described, they're not on the main arterial, they don't cross the main arterial, but there's a pole that

immediately goes up at the first set of houses, and the distribution runs down. It looks fine. You hardly notice it.

And so I think TEP absolutely successfully could do stuff like that if they need to. But there is tangible economic benefits to -- to undergrounding.

But, you know, in those instances where you have the same party that we're all paying, with SRP a lot of it's done with the aesthetics fund that SRP has already established. Just not a mechanism here.

CHMN STAFFORD: SRP isn't subject to the Corporation Commission, so that policy has no bearing on them.

MEMBER RICHINS: And to me that franchise agreement is an important document. If they do not get a franchise agreement approved, they lose their right to be in the right-of-way, I believe.

I mean, you can continue to operate what you're operating but going forward they're not going to be doing anything. So I don't know how you would even construct this project if you don't a franchise agreement.

And therein lies the strongest possibility for them to resolve this issue outside of dealing with this Committee. It's a local issue, let the local folks

make that decision.

CHMN STAFFORD: And do I -- I seem to recall the testimony or -- was that the current franchise requires a cost sharing for undergrounding. Did it?

MR. LUSK: May I respond, Mr. Chairman?

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: I think that -- I think that the applicant and the City can agree that it does allow for undergrounding where either the City is not responsible, but there are areas where the City would be responsible in certain cases.

CHMN STAFFORD: Ms. Grabel or Ms. Hill, you concur with that statement?

MS. HILL: That is correct. And the franchise agreement, the current franchise agreement even speaks to the amount of the franchise fee that is paid to the City by city of Tucson ratepayers that could be used for it. But it's not mandatory --

CHMN STAFFORD: Okay.

MS. HILL: -- that that be used. But there are certain circumstances where the City would be responsible for the cost.

CHMN STAFFORD: All right. Any other questions or comments from members?

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: What are those circumstances? Just an example.

MR. LUSK: So Member Little, the franchise calls for if there's a city capital improvement project and they're not already required to underground, we can provide -- we can ask them to underground and then they, we would have -- we would have to pay for that.

CHMN STAFFORD: All right. So if we don't make the finding, then the City's free to require TEP to underground whatever parts of the project are subject to the requirement either through the Gateway Corridor or area plan without having to share the cost. But --

MEMBER HILL: Mr. Chair, can I add to that statement? Because I think what you just said is correct but I want to acknowledge that there are relief mechanisms there. Okay.

CHMN STAFFORD: Yes, that's what I'm saying. But that doesn't necessarily mean that they would have to. I think it's a problem of which party the burden is on. Because say hypothetically that we did make the finding, then the City -- I mean TEP could argue that they can build it aboveground, but that if they came to an arrangement with the City, they could underground it. But it would have to involve the costs, the City

somehow paying for the cost above the overhead line.

If we don't make the finding, TEP can either not build the line or they could build the line and underground it, and then they're -- I think their big issue then would be cost recovery from the Commission, and the Commission would have to address that.

And I was interested to learn that the franchise fees for the City of Tucson is not shared by all ratepayers. It's -- I recall the testimony that it was paid for by the residents of Tucson.

So I think theoretically the Commission could allocate the underground costs the same way through rates, or they could disallow those costs and force the company to bear them.

But I'm -- that would be a tough spot at the court of appeals, I think, because how can the Commission maintain that it's not reasonable and prudent if it was required by the City?

MEMBER HILL: Mr. Chair, my head is swimming in numbers. I do feel like there are a lot of scenarios that could play out. And so I appreciate you walking us through some of the scenarios. But do you want to put all the scenarios on the table? What is your thinking at this point?

CHMN STAFFORD: If you have -- if you

have --

MEMBER RICHINS: He's thinking out loud.

CHMN STAFFORD: Yeah, I'm just thinking out loud how this will go, because, I mean, the line needs to get built, but I think it's --

MEMBER HILL: I think findings that state that the line does need to get built, that this is a priority, that it's important to reliability, I think -- I mean, one of the things that I've been concerned about is the Vine Substation, all of our routes depend on the Vine Substation.

So reinforcing the importance of the Vine Substation, even though we don't have jurisdiction over substations, I think is important. I think we can put a lot of findings in here and evaluate whether we -- you know, I tend to agree with Member Somers that, you know, not all of the relief options have been finalized or evaluated, and so I'm hesitant to supersede a local government process that hasn't occurred yet.

And so -- but I think we can do a lot of findings that reinforce the importance of this system, that frankly speak directly to the City of Tucson and the utility about finding a workable solution here and what the Committee thinks are priorities and reasons for moving forward.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I understand what is being said. But they've been working on this since 2001; is that correct?

MR. LUSK: No.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: I think you said 2001.

MEMBER GOLD: I'm trying to figure out how long you've been doing that.

MR. LUSK: That's 24 years.

MEMBER GOLD: I'm still trying to ask a question. How long have you been going at this?

MR. LUSK: I think only since 2019.

MEMBER GOLD: So 2019, '20, '21, '22, '23 and '24. So I'm assuming you've been doing this for five years. Even being aware of the slowness of bureaucracies you seem to be at an impasse. Now, I'm not going to ask why you're at an impasse, that's your business and that's the utility's business. But you seem to be at an impasse and we've already stated that this needs to be accomplished.

MR. LUSK: If I may, Member Gold. I don't know that we are at an impasse. I think I am only here as a representative of the City of Tucson as it relates

to our code. I think we have been continuing to work and we will continue to work to get this line done. And I think everybody here at the table is committed to that.

MS. GRABEL: If I may jump in, Mr. Chairman. Member Gold, to your question, I would agree with you that TEP does believe we are at an impasse. I mean, we tried this project five years ago, we withdrew the application, we worked hard to find both the special exceptions that we've talked about ad nauseam and the funding solution.

We talked about all of those various options, we're here before you today, and we see the decision-makers at the table, the city council members filing letters in this docket continuing to express concerns about the location of the Vine Substation, the route that the line traverses through the University Area Plan, it's the same thing that's been happening for five years.

So with all due respect, I understand saying this is something between the City and TEP, and you can work it out. I think that we're at an impasse, and I appreciate a lot of what Mr. Lusk is saying. But he is not a decision-maker. He's an attorney for the City.

And to give us the comfort we need to build

this route on time, if you choose a route that traverses through a Gateway Corridor, I don't think we have a choice but to ask you for that finding. I don't think it's realistic to think the line will be built.

And we won't build it belowground because I do think there's a substantial business risk in doing so. If it goes before the Commission that has enacted a policy that says don't build, because it says you may risk recovery of cost of the differential between aboveground construction and belowground construction, and that's our prime concern.

And it would also be difficult in terms of timing, because the time we would have to appeal any adverse decision here and have the special exception process play out at the same time, the timing does not align.

MEMBER RICHINS: Chairman.

MEMBER GOLD: That sounds like an impasse to me. I mean, intentions are good and I understand intentions are good, but intentions -- good intentions don't solve problems. You have to actually solve the problem.

MR. LUSK: And just to -- just really quickly to follow up, Member Gold. This finding would not change that.

MEMBER GOLD: That's okay. But you still haven't solved the problem.

MR. LUSK: I agree. And I think we can solve the problem. But I'm saying that the finding that TEP is asking you to make is not going to change that impasse, the impasse that she just described.

MEMBER GOLD: Let's put it this way. Something has to happen. You need the power. Everybody, you agree with that?

MR. LUSK: I agree, yes.

MEMBER GOLD: And you haven't come up with a viable solution in five years.

MR. LUSK: I think we have a viable solution right now.

MEMBER GOLD: And what's that?

MR. LUSK: The preferred route.

MEMBER GOLD: Okay. Thank you.

CHMN STAFFORD: Now, quick follow-up and then I'll get to your questions in a second, Member Richins.

Now, with the preferred route, it only -- it crosses one, two, three -- it has three crossings of the Gateway Corridor. And so -- and I think one of them -- one of them was -- two are highly likely to probably get special exceptions. But one was iffy.

I think the big issue is more the University Area Plan because that would require large sections of the line to be undergrounded, so that would require another special exception or variance I think the testimony was.

MR. LUSK: If I may, Mr. Chair.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: Both are available for that crossing.

CHMN STAFFORD: Okay. What about the preferred route going through -- down Euclid Avenue -- I mean, an entire preferred route north of Broadway looks like it's in the area plan. And I think my understanding from testimony from the applicant was that if they have -- if the area plan requires undergrounding, that's not a viable route for them.

MS. GRABEL: That is correct. Without a variance, if that line applies, then we have no ability to build that route if the City will not allow us to do so aboveground.

MR. LUSK: If I may briefly respond, Mr. Chair.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: And I think we clarified that with the testimony that the University Area Plan applies

in a zoning decision. There wasn't a zoning decision other than the special exceptions.

MS. GRABEL: So actually my recollection of my cross-examination of the City's witness, so that's the facts that are in the record, is that he could not commit to whether or not the special exception process might bring in the University Area Plan as a condition.

I heard what Mr. Lusk said during his opening statement, and that gave us I think greater comfort, but Mr. Lusk is not -- he's not a witness. He cannot commit the City. And that's our continued concern.

CHMN STAFFORD: Right. Well, I'm trying to think of a way that we can split the baby, so to speak.

MEMBER RICHINS: Well, Chairman.

CHMN STAFFORD: If -- oh, yes.

MEMBER RICHINS: I mean, I disagree with Member Gold that we are at an impasse. And a lot of the reason that we're not at an impasse sits between Mr. Lusk and Ms. Grabel over there. The outreach that's been performed by this company, which we have lauded on the record and off record a few times, and should be held up as a case study. It's been so well done, there's probably not -- if you don't know that this project is happening in Midtown you're dead, or you just moved here.

So I think the amount of goodwill that has been built up by this company in this area is tremendous. And I think it presents an opportunity in time here. This Committee is not making findings of fact that are indeed, you know -- I'm just not sure. You know, there's a lot of ways we can go with those.

But I think what I'm getting at here is they have a franchise agreement, they have to have all on the ballot within the next two or three years, they will be before the voters that includes their funding mechanisms, their priorities for undergrounding, all of those things are going to have to get reagreed to. And if they don't like what we decide, they're going to do, what, two things, appeal to the full ACC or to court. And so that --

CHMN STAFFORD: Or both.

MEMBER RICHINS: Or both. And so I don't think these decisions are getting made in this room today or tomorrow anyway.

I do want to accomplish two things. One, I want to make sure we respect local control and the sovereignty to make some of these decisions.

Two, we do need to preserve the right that in the rare instance we do need to make a ruling about undergrounding, that we preserve the right to do so in

this Committee. I just think the circumstances in this are so unique because of what's happening and the timing of it, that I don't think we need to really make a finding like that.

CHMN STAFFORD: Regardless what we do today the statute will remain, and it's still possible for this Committee, future Committees to make a specific finding whether or not we make that specific finding.

But it seems to be that the issue is paying the cost differential. Because I think what the applicant has asked for is that we make the finding and then they would be free to install the lines overhead and not underground it at all. But if we were -- but the real issue is the funding of it, the difference.

So if the finding was that if the requirement doesn't -- is made without the City covering the difference in cost between aboveground and underground, only then would it be unreasonably restrictive.

Because if the utility and the applicant work out a way to share the cost because the utility's going to have to pay out of its own pocket and recover from ratepayers the entire cost of the line if it's installed aboveground, if the City is responsible for the difference in payment for the undergrounding of it, they

could underground the entire line if that's what the City wanted. As long as they agreed to fund the difference.

Because the utility is not going to do it because they're afraid they're going to have to eat that entire cost, which is as we've talked about, it's the preferred route.

If they had to do everything underground you're looking at an additional $63.7 million more. So I think that's what's giving them the heartburn and not -- and why they're unwilling to try to build it underground without some assurances from the City. Does that make sense to you, to the members?

MEMBER GOLD: Well, Mr. Chairman, that does make very much sense to me. The only thing is I just heard Ms. Grabel say that we are at an impasse. You can't say you're at an impasse and then we tell you you're not at an impasse.

Five years and no forward movement is an impasse. Something has to be done to accomplish the mission, for the good of the City, for the good of the residents, and so TEP can accomplish what it's required to accomplish.

And if you can't do it on your own, somebody has to push so that it's accomplished. You either do it overground or somebody pays for underground,

so you split the cost for underground.

But the point is, you haven't done it on your own in five years. That is the definition of an impasse. And this has to be resolved, and we're here. The only reason we're here is to help resolve this because nobody else has.

MS. GRABEL: Member Gold, I agree with you and I think a lot of -- we've gotten where we are with the City today and we're hearing Mr. Lusk say the things he's saying because we had to initiate litigation after five years. We had to come here and ask you to make a finding, and that finally brought the City to the table after the failure of Proposition 412, and I think that in order to give us any kind of leverage and continue negotiations with the City we do need some kind of finding. But Mr. Chairman, I think that your proposal does make good sense.

CHMN STAFFORD: Because that way it's not saying the City doesn't have the right to do it. It's just saying that it's only -- that the requirement to underground it in and of itself is not unreasonably restrictive. It's that they -- it's if it's a requirement for the utility to absorb all the cost is unruly restrictive and not feasible.

MEMBER RICHINS: Agree. No, I don't think

anybody is arguing that. I just think that they have a few things at play here, goodwill, they have a franchise agreement that could provide a funding mechanism.

They're both going to have to put their back into an election and convince the citizens that they have been -- the citizens have been approving these plans all these years and are putting undergrounding, undergrounding, undergrounding in their plans and codes.

Then at some -- the citizens need to acknowledge that they have to also be able to recover those costs. So whether it's a ratepayer or a taxpayer, it's the same damn person, and we parse over that.

It's basically the people, whoever collects it, it could be the City, it could be the utility, whatever collects it, I don't care. But there is a great opportunity here.

I just, you know, I hear what Ms. Grabel is saying, but they withdrew this application and they have not -- they've put applications into the city process but they needed a route. Here's your route. Now they have the opportunity to actually go through the City process. We have to recognize Tucson's sovereignty that they have to go through and check out boxes at the City as well.

MS. GRABEL: Chairman Stafford, if I may real quickly, just to address that.

CHMN STAFFORD: Yes.

MS. GRABEL: We only have 20 days to seek rehearing on whatever decision you make today. A city process is going to take at least 90 days to go through, if not more. And so I just don't think that the timing aligns the way you're suggesting, Member Richins.

MEMBER HILL: Thank you, Ms. Grabel. We heard that in the testimony.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Just one correction. The ratepayer and the taxpayer are not the same people.

CHMN STAFFORD: Well, in this situation because you have ratepayers that are -- because TEP has a greater service area than the City of Tucson.

MEMBER GOLD: Exactly.

CHMN STAFFORD: So that's the difference here.

But what I'm proposing is not making the finding that the applicant has suggested, but making it conditional on what the City does.

MR. LUSK: Mr. Chair, just so I can clarify for the record, you're -- and here's where I want to make sure I understand the conversation that you're having, and I appreciate you having it.

The regulation that you're suggesting the finding would be based on would be what?

CHMN STAFFORD: Well, any regulation, any ordinance, master plan, regulation that requires undergrounding and the utility to bear all the costs -- let me rephrase that.

Any ordinance, master plan or regulation that requires undergrounding -- that requires the utility to pay the difference between overhead and underground costs would be unreasonably restrictive.

MR. LUSK: So and the struggle, and again, I appreciate the split the baby. I understand where you're trying to go.

But the struggle I have at least from a record perspective is there isn't a regulation that does that, because there's no discussion whatsoever as to in the Gateway Corridor Zone about who pays for undergrounding.

CHMN STAFFORD: I'm not entirely sure that's correct. Ms. Hill.

MS. HILL: I'm sorry. So I'm not going to correct what Mr. Lusk says about the Gateway Corridor Zone. I'm not.

I think what I'm going to say is I don't think you need to get there. I don't think you need to

go surface Mr. Lusk is asking you.

And the reason is because you have statutory authority to make a finding. And there may be other -- like I am hoping against hope that the technology gets cheaper and that things get easier to do, so that this is not something that causes more conflict in the future.

But what you're proposing is something that Arizona state law specifically allows you to do when there is a local ordinance in play. And that's what we're asking for here.

And I -- so I don't think that you have to get surface what the UDC says about who pays for it or whatever. I think that a finding that requiring the utility to pay for it in its entirety is unduly restrictive and not feasible in light of the technology available, because the cost really is technology driven.

I believe that that has -- that that fits what state law allows you to do. And it allows the City to continue to do what is -- I don't think it's in conflict with Paradise Valley.

I don't think it's in conflict with the possibility that somebody would form an undergrounding district. I don't think there's any of that.

And it is a case-specific finding. This is

not a broad statement that we're asking you to make. There are going to be projects in the future, I'm certain, where there will be safety or reliability reasons.

Copper prices could fall significantly, the insulators could change. The way that the vaults are built could change. All sorts of things as this technology evolves could change. So I just want to be very clear that TEP really isn't asking you to make a blanket statement about undergrounding.

CHMN STAFFORD: Thank you.

MR. LUSK: If I may, Mr. Chair.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: I think that's what's exactly in the CEC, though. There is no regulation cited in the CEC, there's only undergrounding. And so -- and if -- and I understand where you're trying to go, Mr. Chair, and I don't necessarily have a problem with that other than the fact that, again, the regulations we've been discussing through this entire proceeding, the UAP and the Gateway Corridor Zone, neither of them discuss who pays for what's required.

So in order to make a finding that, and even if -- and I understand you're wanting to make it conditional, but if you're making the finding that the

Gateway Corridor Zone requires TEP to pay for undergrounding within the Gateway Corridor Zone, I don't know that you can make that finding.

CHMN STAFFORD: I'm not proposing that we make the finding that it does that. I think what I'm suggesting is that if, then. See, if any of these ordinances require undergrounding without covering the cost differential between overhead and underground, only then would it be unreasonably restrictive and not feasible. That's what I'm proposing.

MR. LUSK: And I understand. I understand.

CHMN STAFFORD: If the if never comes to pass, the then doesn't happen.

MR. LUSK: And I think that's a good direction to go. I'm just in terms of the record, it's going to be difficult for someone to parse out what does the Gateway Corridor Zone require as it relates to paying for it; right? Because that's a hypothetical.

And I just want to be clear that our position -- and I don't want to belabor this and I want to allow you to have your conversation, please.

But I think our position would probably be that's not an appropriate finding because it doesn't do that, and I think obviously others disagree with me, but that would be our position.

MS. GRABEL: Mr. Chairman.

CHMN STAFFORD: Ms. Grabel, Member Hill, thoughts on that. One second.

MS. GRABEL: Mr. Chairman, I agree with you. I think it is an if-then, and I think that your reasoning makes very good sense. The crux of the issue is the differential cost of undergrounding, and the ordinance is unreasonable if there's not a cost-sharing mechanism and I think that's also very consistent with the Corporation Commission's policy.

CHMN STAFFORD: And I think as part of the variance or special exception process, couldn't the City and the utility sort out the payment method?

MS. GRABEL: Correct. And it doesn't have to be the City, it could be a third party, it could be an underground district that puts a lot of funding issues on the table.

MR. LUSK: I agree with both you and Ms. Grabel on that point, and I guess our position would then be that that makes it not unreasonably restrictive.

CHMN STAFFORD: I'm not following that.

MR. LUSK: If the opportunity is there to allow for relief and allow for the parties to work out how they want to pay for it and all of that, it makes it hard.

And, again, we don't need to argue all of this right now. But the issue is that if that is all available to the applicant through this process, through that ordinance, and they have not taken advantage of it yet, so we don't know sort of how it's going to play out, it makes it hard for me to understand how we would argue it's unreasonably restrictive with all of those caveats.

CHMN STAFFORD: I'm still not following. The way I see it is if they go through the process, it's denied and the only way for them to build a line is to underground it at their own expense and to pass on to ratepayers without the City sharing in the cost differential. I think then that would be unreasonably restrictive and not feasible.

If, however, because you couldn't -- the City can't comment on how the special exception or variance process is going to play out, because they have to do their own process, they have to go through the steps and I get that.

I understand that they can't pre -- it's like coming in to the Commission and getting preapproval of a line before the line siting holds the hearing. You just can't do it. And I understand that's the same process with the City for this.

So I'm just saying the utility needs some

more certainty than they've gotten from the City so far in how this project's going to go. So I think that I'm trying to find a middle ground so the two parties can reach an agreement, get the line built, and provide the reliability of service that the City needs.

So I think it's -- I think it's not in the City's own best interest to block construction of this line or insist that, you know, the utility absorb $63 million of costs to pass on to ratepayers later to get it built. I don't think that's reasonable.

But if, however, they do reach some kind of agreement on the funding, well, then it is reasonable. And that's kind of the -- I think that is the crux of the impasse that we're at.

Because we're going round and round, the City doesn't want to commit to pay for the difference, but they want to require the undergrounding. And the utility doesn't want to front the cost for the undergrounding on the risk that the Commission will tell them to kick rocks and not -- not go into recovery.

So I think it's -- I'm just trying to -- what can this Committee do to break that log jam so to force the parties at the table to come to an agreement on how they're going to pay for this and get it done. That's what I'm trying to do through this process.

Member Little, I'm sorry, I've kept you waiting for a while. You had a comment or question.

MEMBER LITTLE: I'll save it. Thank you.

MEMBER HILL: Mr. Chair, I agree with you. I think if the two parties could come to language -- come together on language that is a finding that demonstrates commitment and isn't giving one party more leverage than the other, then I would -- I would definitely consider that.

Because I think the solution that might be -- well, there's a litany of number of things that could be happening; right? Like, this tax, that tax, this franchise fee, this thing, and maybe there is, you know, a shared cost outcome that works.

I also feel like we're kind of providing two corridor options here. One that the -- I mean, I just have to acknowledge that the Campbell Avenue route, I like that it stays out of the neighborhoods more and stays in that commercial corridor. And as it's proposed with 1.1, more than half of it or two-thirds of it is aboveground.

I like that route more than I like the Euclid route. But I think giving both routes provides options and opportunities to talk about what's best for Tucson and TEP and Banner and all of the parties here.

So if the parties could identify language and both be comfortable with that finding, I'd be happy to include that.

But to create a finding that puts the onus on the cities to pay for all the undergrounding doesn't quite -- it feels like it stymies the ability to work more collaboratively and find a workable solution, so.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I agree with everything she said. With one exception, human nature.

MEMBER HILL: Damn.

MEMBER GOLD: That's the problem. The problem with human nature is it's been five years and they haven't. Let's put the iron to the fire and say, "Hey, look, this is what's going to happen. You're not going to have a choice because you haven't been able to make a choice."

MEMBER HILL: But they have --

MEMBER GOLD: So we're going to give you options. You have to make a choice. This has to be accomplished.

MEMBER HILL: There has been progress in the last five years, including the variance and special exception process that was created. So, Mr. Gold, I

don't completely agree with you that there hasn't been progress in five years.

MEMBER GOLD: I --

MEMBER HILL: I think there's been refinement of corridors. I think that there's been special exception processes that have been developed. And I think that some of the delays have probably been a function of legal actions, which frankly I can understand the City's kind of being a little clammy about committing to a whole lot on the record because these legal processes could continue.

So everybody's a little pussy-footing around the issues a little bit and then having a hard time making a commitment. So I do think that there has been progress. I think there is more progress to be made, unequivocally, and if the parties could come together around some language about how they want a finding that preserves a lot of options for an outcome that works for everybody, I would be willing to hear that.

MEMBER GOLD: Mr. Chairman.

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Member Somers.

MEMBER SOMERS: Thank you. Just to bounce off that, I think we have to also remember the last five

years have been quite unique. We've had a global pandemic that shut down processes. A follow-up to that has been an increase in costs. It has slowed down both public processes and business processes, you know, across the country. So a unique set of circumstances that have really likely have contributed to some of the time line difficulties.

But in addition to that, I don't think we should dismiss the City has been doing nothing or hasn't expressed an interest in any type of cost sharing. The item that went -- the proposition that went before the voters did have a mechanism in it that was supported by the City that would have helped raise funds to pay for this.

And I think that that shows some good faith to put that before the voters, even though the voters rejected it for whatever their reasons, that the City didn't put forward a mechanism to help pay for it.

I don't think there's any reason to be overly concerned from our Committee's perspective that the City wouldn't try to find ways to share that cost.

So to Member Little's point, I agree, if we could find that language, if the two parties could find the language to come to us as a Committee with a finding that doesn't put one party's thumb on the scale any more

than the other, that works towards a collaborative agreement to find that funding would be the best avenue moving forward for getting the CEC done.

MEMBER LITTLE: Mr. Chairman.

MEMBER SOMERS: I hope you heard that, because, otherwise, you looked stunned.

CHMN STAFFORD: We heard that. Thank you, Member Somers.

MEMBER SOMERS: Okay. Thank you.

MEMBER LITTLE: Yes, Member Somers, we did hear that.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: And as much as I would love to take credit for what Member Hill just said, it was not me, it was her. And I do agree with all of that, however.

CHMN STAFFORD: All right. So Members, so is there an appetite for a conditional finding?

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: One more thing. The way I read the statute, it says that we can -- if we find that there is an ordinance, master plan or regulation that is unreasonably restrictive, we can still issue the CEC. That's what it gives us permission to do.

It does not tell us that we have permission to tell anybody that anything has to be overhead or any part of the ordinance has to be abided by and other parts don't. It just says that we can issue the CEC.

CHMN STAFFORD: Correct. That's what the statute says. The implications of that are still up in the air and have not been decided.

MEMBER LITTLE: All right.

CHMN STAFFORD: I'm not aware of any Committee making this finding.

MEMBER LITTLE: Nor am I. And in addition, I am also unaware in my experience of the Commission disallowing undergrounding costs in ratemaking.

CHMN STAFFORD: But they haven't been faced with that problem since they passed that policy, though, I think.

So, and I think that's what the utility's concern is, because they did pass that policy it's kind of, hey, it's a big warning. We're telling you, telling you up front no, you shouldn't be doing that.

And then so that, I think that's what -- it's that -- it's the existence of that policy that I think creates the risks for the utility that they are not willing to take.

MEMBER LITTLE: I understand that. I

understand that. But I am -- well, I'm fumbling around here. I agree with everything that has been said here with a modified finding. I just am unwilling to -- to say that -- I guess I don't believe that we have the right to say it has to be overhead or it has to be underground.

CHMN STAFFORD: Right. What the statute specifically says is that, you know, the beginning of the statute says that every CEC must have -- must have as a condition that they must, that they comply with all applicable ordinance, master plans and regulations.

And then the rest of it goes on to say, well, if we make a specific finding that one of those or such ordinance, master plan and regulations is unreasonably restrictive, and compliance is not feasible in view of technology available, then we could issue the CEC notwithstanding that. So the CEC wouldn't require compliance with it.

What it doesn't say is that the utility would not have to comply with it. That's up in the air, and I think the applicant would argue that by making that finding they don't have to comply with that statute, but -- the plan, ordinance or regulation.

But that may or may not be the case. That'll be for the courts to decide. But I think that

what it does -- what's clear about it is that we can issue the CEC and the condition of the CEC would not be undergrounding.

MR. LUSK: Mr. Chair, if I can perhaps offer a suggestion, obviously I haven't spoken with TEP about this.

But one thing that I do notice is there is an opportunity within the proposed CEC for modification of the CEC itself. Is it possible that the conditionality that you're discussing, rather than making the finding that you're -- that the applicant has requested, could the conditionality be to come back through that mod -- seeking a modification with the understanding that that could lead to that finding, if that makes sense.

CHMN STAFFORD: I think that's theoretically possible. But I don't know how much that benefits the whole process. Because I think what --

MR. LUSK: Well, and I didn't mean to interrupt, but I guess what I'm suggesting is that I think part of the concern is that they will go through the city processes and then be unable to get the relief that they seek disallows them the opportunity within a certain period of time to do that, then go through the processes that have never been tested before. And then

let that play out as some of the other members have suggested. And then still have the opportunity to get that finding.

CHMN STAFFORD: Well, I think they'll have it always because of how the Committee and the Commission, how their jurisdiction plays together. Because you have -- the Committee serves as the finder of fact, but every CEC we issue isn't effective until it's approved by the Commission, and they can accept, reject, or modify whatever we do.

MR. LUSK: Of course.

CHMN STAFFORD: So, and then once they do that, then it's the decision of the Commission that is the authority. And it incorporates by reference the CEC to the extent they haven't rejected or modified portions of it.

And then under A.R.S. 4252, the applicant can come to the Commission at any time and request that the Commission make changes to the CEC or the order or any of those things, and they've done that in the past.

I mean, look at SunZia as a recent example. They had -- they approved it back in 2016, I believe, but then they came back in 2022 to make some changes to it. The Commission, sometimes when they get requests like that they don't send to it to the Committee. They just,

oh, yes, that's a reasonable change and they approve it. That was the case with APS's, the power plant. I can't recall the name of it, though.

But when they went and added, because the CEC is usually for 12 units, the first tranche was 10, the second was two. They never built the second two because they didn't have the need at the time.

And then the CEC to build them expired. So they came and got relief from the Commission. They didn't send it to Committee because they said we've already made the determinations, we're just allowing you to build the two we said we could before, but the time lapsed on them.

But with the SunZia, because there's physical changes to, not the route but to the towers, they found that was enough difference to merit further hearings and they did, and they amended the CEC and they approved it.

So, I mean, that's --

MS. GRABEL: Mr. Chairman, for exactly the reasons you said is why that process isn't going to work. I think the Committee has already determined that there's an urgent need and this project needs to be in service by 2027, even the fastest 4252 I've ever been involved in still took four or five months to go through. We don't

have that time here.

CHMN STAFFORD: Right. So I appreciate the thought, Mr. Lusk, but I think from the way the process already is and the time frame we're looking at, that wouldn't work -- but like I -- they have the ability to seek relief from the Commission at any time afterwards.

It's not that, because the statute I think that Ms. Grabel was referring to earlier is the time frame for a party to the Committee proceeding to request review by the Commission. But it'll go before the Commission anyway, because they have to not earlier than 30 days, not later than 60 days, accept, reject or modify the CEC as issued by the Committee.

MR. LUSK: Thank you, Mr. Chairman. I was just looking for solutions.

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Mercer.

MEMBER MERCER: So we've spent almost two weeks listening to testimonies, listening to -- we took one whole day to do the tour. I agree with Member Little about the scope of our job as a Committee. And I understand the concerns of the public, the concerns of the applicant.

What I get out of this whole back and forth is that the applicant went to the master planner or

whatever his title is, his or her title, and they were told bring us a route.

CHMN STAFFORD: We've done that today. We've given them two.

MEMBER MERCER: So now are we going to be back because now we have two routes?

CHMN STAFFORD: We won't be back. Once we -- assuming we issue -- we vote to issue the CEC, our job is done unless it goes -- unless the Commission sends it back to us for further hearing for some reason.

MEMBER MERCER: Okay. So my understanding now is that now that they have two routes they're going to go back to the planner and we're supposed to just let it duke it out.

CHMN STAFFORD: That is an option, definitely. The only thing that I'm suggesting is that because they request a specific finding, and I think the effect of the finding gives the City more reason to come up with a funding mechanism, and it gives the utility possibly the ability to build it aboveground if the City doesn't fund the difference.

And that would be -- there's difference of opinion on that. This is something that's not ever been done before. I mean, the statutes existed for 50 years but I don't recall and I haven't seen any instances of it

actually being applied.

Much like with the hearing officer. That has been on the statute. No one did it until last year because -- and that was because of necessity is what, I mean, these things were contemplated by the legislature when it was passed, but they haven't -- it hasn't come up.

I mean, for instance with the volume of hearings. I mean, when you have four line siting hearings a year, you don't -- or I just did a hearing officer -- the Committee can just meet four times, but if you're doing 50 hearings a year, how are you going to do that?

You need to have more than one body holding the hearing. So I mean, it's a question of what the realities are that we're facing and how we're going to apply the law that we have.

So, and I think the way that I see this is this finding could potentially help break this log jam.

Instead of just giving it, you know, straight up these are unreasonable conditions, I think they're not unreasonable if the City pays the difference, or somebody other than the utility and the ratepayers pay the difference. That's the I think the real sticking point between the City and the utility.

And my hope would be that if, you know, not -- so no one's getting all that they want. The utility's not getting the finding that this is ridiculous, tell them to put it underground, the City is not getting a decision that says they have to underground them, if you tell them to, and you can just tell them to kick rocks on the payment.

I think that's where the log jam is. And my hope is that -- my thought is that if a conditional finding would tip the parties to, okay, we need this line. The City's got to help pay for the undergrounding. Or waive undergrounding, either one. I mean, that's going to be up to the City to decide what it does.

But it gives them all options. And there's two routes, one that affects residences more, one that affects commercial areas more, but it's on the main drag that they want to have the Gateway Corridor on.

And so they, you know, they can -- it gives them, both parties options to sort it out, but it gives them -- it changes the field from what they're on now to hopefully push them to a place where they can make a deal and get it done.

MEMBER MERCER: So just one more thing. So is there a possibility that there's another voter initiative like Proposition 412? As a resident of

Tucson, I voted no because I didn't want to pay for it. Because it was not going to benefit my area of town. And that was the consensus that I got from other neighbors and citizens of Tucson. So --

CHMN STAFFORD: And to make -- barring something creative by the Commission, if the City required undergrounding and the utility undergrounded the whole line, then those costs would be borne by all ratepayers, even the ones that don't live in Tucson and don't elect the officials that required the undergrounding.

Unless -- unless the Commission treated it differently in rates like the franchise. The franchise is apparently allocated to only the customers of TEP that live inside the city.

So, but then again you have the situation where people that live in the City far from where the line is undergrounded, they pay for it but they don't benefit from it necessarily. They benefit from the line's existence, but they don't benefit from putting it underground.

Unless, I guess some could if they drive down Campbell a lot and they prefer not to look at power lines and they'd have that benefit. But, you know, that's -- but most of them probably don't care. Because

I don't -- because most people don't care about driving past power lines. It's having to look at them constantly from your front door or back door or something.

MEMBER MERCER: It's like my son lives in Scottsdale and there's this humongous, and I mean humongous power lines, and I go, wow, this is a very, you know, gated communities and there's power lines like, oh, my goodness.

MEMBER KRYDER: But he bought the house.

MEMBER MERCER: You never pay attention to it until you're on this Committee.

CHMN STAFFORD: Yeah, gated communities need power too, so it's got to come from some place. So I mean, that's one of the differences between what they talked about in the Scottsdale versus APS case was that case involved distribution lines. Because distribution lines serve smaller finite areas whereas transmission lines connect to the regional grid.

And so power can move through those lines across the state from one state to another state. You know, because through these lines TEP can import power through the EIM, you know, they can get cheap power from California and they're giving it away.

And that saves money for ratepayer. So the transmission system is -- I think the transmission system

is bigger than the local concerns because it has -- it's a regional grid. And I think that's kind of what the purpose of the statute was.

But, again, you know, undergrounding in a town, that is a local concern is Member Richins' point.

MEMBER KRYDER: Mr. Chair.

MEMBER RICHINS: Chairman, part of me takes issue with the ACC's policy statement. We do this kind of thing all the time. Governments do it all the time. They're building roads across town that members will never drive on. There's freeways being built that I'll never drive on. And there's infrastructure being put in that I'll never use.

When people wanted to go, we had a lot of snow birds in Mesa. When they wanted to leave town for six months they wanted to shut off their water utility with whoever the water utility was. And not pay anything for six months, forgetting that they want the water to come back on when they get back.

So you have two elements here. You have paying for the infrastructure and then you're paying for the utility, or the commodity, which is the power here.

So we do this all the time. We divert costs across larger swaths of people so we can enjoy amenities all over the place.

So the policy statement by the ACC, I understand. I mean we don't want to do -- we don't want to put excessive burden on ratepayers. I get that. At the same time, if the ratepayers of this community want this aesthetically, then they should pay for it.

And TEP has every right to appeal this to the ACC for whatever relief that they want from whatever we rule anyway. So let's make sure we stick with some principles here, and I just feel staying silent on that issue is appropriate here because it's preserving Tucson's ability to determine for itself and its citizens with their partner utility, TEP, building on the great work that Clark has done.

I think they can get this done. I have a lot of confidence. I feel really uncomfortable with conditional or split baby stuff. It just can go awry. And I'd feel really uncomfortable putting an if-then scenario in a CEC. It doesn't seem appropriate. But that's just my thought.

MS. HILL: Mr. Chair. I'm sorry. Mr. Chair, I have two questions in the interest of working towards a solution here.

The first question that I have is I hear, we appreciate, and believe it or not, Mr. Lusk and I have already that these conversations about how do we get

there with the preferred route. How do we get there? How do we make sure that we can make this happen?

We're not the decision-makers in our organizations. We've already had those conversations. We are still talking. And I don't want anybody on this Committee to think we've all given up, because we haven't.

But my big concern is that we can talk and talk and talk, and this line is going to be in service by '27. And so what would be really helpful here, very, very helpful -- and this, Member Little -- Member Little. I'm sorry. I was looking at her and talking to you.

Member Hill, I hear what you're saying. I don't actually agree that a conditional gives one party more leverage other another. I think it gives everybody at the table some things because I think this Committee can also put in some requirements to the CEC to make something conditional effective.

For instance, I think you could if there were a conditional CEC -- such that the Chairman is suggesting.

CHMN STAFFORD: Conditional finding.

MS. HILL: Conditional finding. Sorry.

CHMN STAFFORD: Conditional CEC and conditional finding.

MS. HILL: Please don't give me a conditional CEC. Just don't. I'd have to turn in my bar card.

But if in fact there were a conditional finding, what I would like to see is some time constraints on how long -- how soon we must get together, how soon we must form a committee, how fast TEP working with -- we can talk to Mr. Bryner here, we've got the people here today who could talk about how quickly we can get our special exceptions filed on our -- for our preferred route.

And getting through that process, I would like very much to see some time lines. And then I think what we have is what you wanted. Which is that -- and then in the event that our special exceptions are denied or it is found that the University Area Plan requires undergrounding, then the utility -- then it is unreasonably restrictive to require the utility to bear the entire cost of that undergrounding.

But we have no objection, just like we have no objection to a condition that says that we must underground the distribution along the route. We're happy to take that condition. We are happy to memorialize those commitments that we have made and be required to stick to them.

I would love -- I mean I've been a litigator my whole career, and you what I hate? Big, amorphous, semi-findings that then nobody knows what they mean. So I really appreciate what Member Richins is saying. It's full employment when I work by the hour, but it's not -- it's not practical to getting things done.

We'll come to the table. Mr. Lusk and I can talk about it. Mr. Bryner here, we can tell you guys -- if we can take a 10-minute break, we can tell you guys how long it will take us to get our special exception permit -- or applications done and submitted.

And then this Committee can say to us, all right, you got to do this to TEP, and City, you're going to show up and you're going to go through these in good faith and you're going to prioritize them and realistically, then everybody's feet are held to the fire, not just -- but this - I think this would be a different story if we were two years earlier or if we were -- but as you noticed, Member Little, we are working towards something.

I'm sorry. I do it again. I'm so sorry. Thank you. Thank you. Because she's right in front of me and so her face is right in front of me.

MEMBER SOMERS: (Indiscernible.)

MS. HILL: And so Member Hill, I -- yeah, there you go. Thank you.

So Member Hill, we were working towards those solutions but we are at a critical juncture and my fear and the company's fear is that we're going to end up spending a lot more money if we don't have some time constraints on how long we have to keep talking.

MEMBER SOMERS: Mr. Chairman.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: I'm a very intrigued about Ms. Hill's recommendation here and the idea of giving them 10 minutes to have a discussion between themselves and the City.

Normally I would not be inclined to dictate to a local community about their processes and time lines, but if the City can compromise on that, this might be an interesting way to break the log jam that we have here and move forward. So I'm interested in what they might come up with.

CHMN STAFFORD: Right. And just to clarify, I don't think this Committee has the authority to order the City to do anything. We don't have -- our only authority is over --

MEMBER SOMERS: That would be a concern.

CHMN STAFFORD: Our only authority is over

the CEC and the authority gives the applicant to build. And, again, it's not even us. We're just the first step. The Commission has to make the ultimate determination.

So I think we couldn't require the City to do anything, but we could put -- the condition would allow, would require the utility to do certain things but then if the -- and allow them relief of some kind of if the City did not do certain things. Because we can't order the City to do anything.

MS. GRABEL: Mr. Chairman, I think that Ms. Hill's recommendation was not a condition on the CEC, but a conditioned finding. So the finding would take effect if we didn't have --

CHMN STAFFORD: Right. Right. That's what I'm saying. The finding would be conditional that says, okay, it's like the result would be if the City doesn't behave reasonably, then the restriction is unreasonable.

But the City's going to do what the City's going to do. But it's a question of how you phrase it. I'm just going to make it clear that we can't require the City to follow any time lines. All we would say is that we expect this to happen and if it doesn't happen, then Y happens.

MEMBER HILL: But Mr. Chair --

MEMBER SOMERS: And as long as that doesn't

have a result attached to it.

MEMBER HILL: I think that's what Mr. -- I think that's what Somers was saying. What I was also going to say is if -- if it says the utility will do X, Y, Z, and if the City doesn't respond reasonably, then this is unreasonable -- I'm not saying it correctly. Maybe Member Somers wants to say it. I think we're going to the same place.

MEMBER SOMERS: Yeah, I don't think we need to figure -- the applicant is willing to meet with the City on a 10 or 15-minute break for the court reporter's benefit, to have this conversation to see if they can hammer out some language for us to listen to, I think that would be an excellent way to do it.

CHMN STAFFORD: I agree, Member Somers. So are we prepared to take the break now? Does any member have something else to say before we allow the applicant and the City a chance to sit down and come up with something?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I think that's a great idea with the additional piece that you speaking as both a member of the Committee and the chairman of the Committee, then put together what I heard you say, very

reasonable language that we could at least get on the table, and then begin working through that language so that we move off of this.

We've kind of continually said the same thing over the last 20 minutes or more. But you, Adam, seem to have a good view of where we could move forward, this additional information now with Ms. Hill and Member Richins. Yes. Put together some language that we can get on the table. And we'll all take a break while you all go to work.

CHMN STAFFORD: Well, I don't think it would be appropriate for me to meet with the parties off the record, but I think it's a good suggestion. But I'd like to clarify it by - I'm hoping that the City and the utility will come up with the language that we'll all look at and then we'll take it from there. I'm not going to meet privately with two of the parties off the record. Come up with language, but I think the two of them certainly can.

MEMBER SOMERS: That would be an ex parte.

CHMN STAFFORD: I think it's important to take the break. We'll let TEP and City of Tucson see if they can come up with a suggestion that we can kind of bridge this gap. So, all right, any other comments before we take a break?

(No response.)

CHMN STAFFORD: All right. Let's take a approximately 15-minute recess. We're in recess.

(Recess from 2:44 p.m. to 3:46 p.m.)

CHMN STAFFORD: All right. Let's go back on the record.

Ms. Grabel, Mr. Lusk, do you have some good news for us?

MS. GRABEL: We do have some good news. So we have language to propose to delete the existing finding of fact 11 that was in the CEC. And we're going to insert two different findings of fact, 11 and 12, and then make conforming changes to the numbers. Yes.

MEMBER RICHINS: Chairman, which document are we working off, because we got CE -- we got 36 and then there was some other ones.

MS. GRABEL: 36 is the one that we were working off of. And obviously you can make whatever changes you want to the rest, but here are the two paragraphs that the City and TEP and Banner have agreed to.

So, Eli, if you want to display it. Do you want me to read it out loud?

CHMN STAFFORD: Yes, please.

MS. GRABEL: Okay.

CHMN STAFFORD: Slowly, yes.

MS. GRABEL: Yes. "Delete finding of fact 11." So the new finding of fact 11 says, "The City disagrees that a finding of fact pursuant to A.R.S. Section 40-3406.06.D is necessary, and believes that it is feasible to construct the MRP consistent with its local ordinances and plans with the technology available, and those local ordinances are reasonably restrictive.

"The parties have reserved and asserted all rights to judicial relief on this issue."

New paragraph 12. "However, given the Arizona Corporation Commission's policy statement, we find pursuant to A.R.S. Section 40-360.06.D that any local ordinance or plan that requires TEP to incur an incremental cost to construct the MRP belowground is unreasonably restrictive, and that compliance therewith is not feasible in light of the technology available.

"This finding is conditioned on City and TEP not finding a means to, within six months of the date of the ACC's approval of this CEC, either, A, fund the incremental cost to construct the MRP belowground from a source other than through TEP's utility rates or from TEP, its affiliates, subsidiaries, or parent companies absent agreement between the parties;

"Or, B, obtain the City's authorization to

construct the MRP aboveground through the City's special exception or variance process, provided that TEP files a special exception or variance application for the route approved within 10 weeks of the Commission's approval of this CEC."

MR. LUSK: Just real quickly, do we need to add the actual decision or do we have that somewhere else?

CHMN STAFFORD: We won't have the decision until --

MR. LUSK: No, I meant the specific policy statement we're talking about in that paragraph. I just didn't know if it's -- I think it's somewhere else.

MS. GRABEL: It's elsewhere.

MR. LUSK: Okay. Thanks.

CHMN STAFFORD: Is it mentioned in the finding of fact?

MS. GRABEL: Yes, it's a very early finding of fact.

CHMN STAFFORD: Okay. Okay. Member Little, I see you. Do you have a question or a comment?

MEMBER LITTLE: I'm digesting. Thank you.

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: I just needed the screen to

be fixed and they took care of it already.

CHMN STAFFORD: Excellent. We'll give you a chance to read it again if you'd like.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: The university corridor area, does that -- is that already included in here or does it need to be included here?

CHMN STAFFORD: I think it's vague enough, it just says -- it says "local ordinances and plans." So I think that covers everything that would be applicable that could require the undergrounding, because under the statute it doesn't -- I don't think you have to specifically call out the individual ordinance. It just says if they find that they are, if any are. I don't think you have to specify, but this is kind of covers all the bases, I think.

MEMBER DRAGO: All right. Thank you.

MEMBER RICHINS: Can the parties confirm that?

(Simultaneous cross-talk.)

CHMN STAFFORD: One at a time. One at a time. One at a time.

Member Richins.

MEMBER RICHINS: Can the parties confirm

the understanding of all the plans applicable on the record, please?

MS. GRABEL: Yes. Mr. Chairman, that was certainly TEP's intent.

MR. LUSK: That's our understanding as well, Member.

CHMN STAFFORD: Ms. De Blasi.

Ms. De Blasi: Yes, that's my understanding as well.

CHMN STAFFORD: Mr. Dempsey.

MR. DEMPSEY: I wasn't involved. I assume so.

CHMN STAFFORD: All right. Member Somers, you had a question?

MEMBER SOMERS: Same question. Thank you.

CHMN STAFFORD: Oh, so it got answered already, then?

MEMBER SOMERS: Yeah. I had the same question that Member Richins already posed.

CHMN STAFFORD: Okay. Great.

MS. DE BLASI: Chairman?

CHMN STAFFORD: Yes. Ms. De Blasi.

MS. DE BLASI: Just as everyone's digesting this language, I think it works well, and the reason that Banner supports it is that it gives opportunities for the

parties to work together, and that also anticipates that Banner would be supporting this process as a, you know, member of the community in that area, provided that's only going to be along the approved, you know, preferred Route B and 4.

So as the Committee is contemplating this language, and you'll notice that it says the approved route, I think it has been very clear by the applicant that they are not interested in building along Campbell in those corridors.

And I believe right now we still have D, 1, and 1.1 under consideration. It's not ideal always to have multiple routes where we have a resolution. So if this resolves that issue, we would ask that it be considered for B-4, which is likely what they're going to be building anyway, and Banner would support that process.

CHMN STAFFORD: Members?

MEMBER GOLD: Mr. Chairman.

MEMBER LITTLE: Mr. --

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I'm looking for the word "route." Where is it?

MS. DE BLASI: Member Gold, it's the second line from the top -- bottom. Sorry. Second line from

the bottom.

MEMBER GOLD: I'm sorry? Okay.

MEMBER GOLD: Okay. TEP --

MS. DE BLASI: The route approved.

MEMBER GOLD: -- an exception or variance application for the route approved within 10 weeks.

MS. DE BLASI: Correct.

MEMBER GOLD: Does that mean you have both agreed on only one route?

MS. DE BLASI: Well, they would -- well, I'll let TEP speak for themselves. But my understanding is that they would be -- they've promoted a preferred route and as have we.

So I don't think they would be wanting to go through that whole special exception process for multiple routes, especially ones that are as complicated as running up a Gateway Corridor like D, 1, and 1.1 do. I would also point out that it's been discussed that Route D avoids, and 1, avoid residential areas. And if you look on the map supplied by the applicant, there are a lot of residential along Grant for D and along 1, going all the way down Campbell. So I'm not -- I just wanted to point that out.

MEMBER GOLD: The reason I say that is we were looking at the -- let me just find it, give me a

second. We allowed B and D, 1, and 4, for any -- any combination of those. So we were not being restrictive.

I think this may be too restrictive by saying we have to pick B-4, or what if we choose B-1? All I'm saying is is this very restrictive because the parties have agreed on that? Or maybe I should be asking Ms. Grabel or Ms. Hill.

MS. GRABEL: Thank you, Member Gold. So TEP came with a preferred route and we'll defer to the other parties with respect to their interests. However, I'm also very cognizant of the Committee's interest to giving flexibility to kind of choose the routes that go around commercial areas and residential areas.

And so we will -- as to route selection, we'll defer to the Committee. I think you have the authority to do that.

CHMN STAFFORD: Right. Because you're only going to build one route, whether it's --

MS. GRABEL: Correct. I mean, if the concern is the word approved, you could just say a variance application for a route within 10 weeks and I think that gets rid of the ambiguity.

MS. DE BLASI: And Chairman, to be clear, that was my point as well. I think the applicant has made clear that they're wanting to build a preferred

route, although any route that's approved by the Committee, Banner fully supports as we've said multiple time the preferred route as well.

CHMN STAFFORD: All right.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I personally would very much like to see both or all three or whatever.

But both the commercial and the more residential sections included, so that we have approved more than one route.

I really think that the -- you know, I was a utility planner for many years, and driving these routes, doing installation along Campbell Avenue offers many advantages. And I believe that if the parties can agree to conditions that they both can live with and go along Campbell Avenue, I think that, you know, from a utility planning perspective that is the better route. And I think that I would very much like to leave the options open.

You know, at the very beginning way back, seems like a hundred years ago, but it was just last week, Member Gold mentioned and has discussed since then the residential option versus the commercial option.

Where do you prefer to see the

construction? Where is it going to be easier to build it and who, you know, what is it going to -- where do you want this line if you have to choose between the two? And I think that that is -- is still very valid, that both options be left open.

CHMN STAFFORD: Thank you. Member Richins?

MEMBER RICHINS: I would be perfectly fine approving a single route if we want to go down that road.

CHMN STAFFORD: All right.

MEMBER RICHINS: To give perfect clarity to the parties, and I mean, I'm inclined to support the preferred route of what is it, look again here, B-4. I don't know why that's not engrained in my memory by now, but B-4 for the sake of clarity.

MR. DEMPSEY: May I make a comment?

CHMN STAFFORD: Yes, Mr. Dempsey.

MR. DEMPSEY: So if the idea here is that the City and TEP come to find a way to fund it, it may be that underground on Campbell is the best route. So removing it doesn't make a lot of sense to me. Because you need to keep your options open, as Member Little said.

And I think undergrounding on Euclid doesn't make any sense at all. If you're going to underground you've got to do Campbell.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I suggest we just make the word route into routes so we leave the options open.

CHMN STAFFORD: Well, I don't think we need to because I think the other part, if you leave it in then -- they're only going to build one route. They're not going to build -- it's going to go one place or the other. It's not going to go in both. So I think the language is fine as it is. I just think, you know, we're approving a route, that route has, you know, several possibilities, but they're only going to build one of them.

MEMBER GOLD: Understood. So our choice is to recommend a route of routes.

CHMN STAFFORD: Right.

MEMBER GOLD: And an alternate would be whatever else they choose. Thank you.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Comment to the people who put the language together, you did a magnificent job in a short period, and I would move that the Committee accept this as it was written and shown.

CHMN STAFFORD: But we're not voting on the

language of the CEC yet, because what -- I think -- I don't think we need to take a vote right now. But I just -- I think tomorrow what we'll do is we'll come -- what we're going to need is the applicant and -- mostly the applicant, to give us another draft CEC that reflects the routes that we've approved and put the description in the beginning. Because right now what I'm looking at is only B-4. And add these.

MS. GRABEL: So Mr. Chairman, certainly. We will incorporate these into the CEC for tomorrow.

I think it might be helpful and save some time tomorrow since we still have an hour for you to kind of work through whatever changes you might propose while all the parties are here and in a collaborative spirit.

CHMN STAFFORD: Yes.

MS. GRABEL: That might be a good use of time.

CHMN STAFFORD: That was going to be my next suggestion. Thank you.

MS. GRABEL: Sure.

CHMN STAFFORD: You're reading my mind.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: I would just also suggest that you could do the route avoiding the hospital, the

university by going B-1. It would also take it away from them. So that's the reason I suggest leaving them all as options to mix and match as works out best for the City, for TEP, for the hospital, for everybody else, and for undergrounding if that's also approved.

MR. LUSK: I'm sorry, Member Gold, did you B-1 or D-1, D as in dog or B as in boy.

MEMBER GOLD: I say both. You have the option to go D-1 or B-1. It doesn't have to be B-4, it can be D-4.

MR. LUSK: I think D-1 is an issue for Banner because it does go --

MEMBER GOLD: That's why I say leave the option, leave D in, leave 4 in, leave 1 in, and leave B in. And you can choose amongst yourselves which is the best option.

MR. LUSK: I just wanted that clarification. Thank you, Member Gold.

CHMN STAFFORD: Right. And I would suggest that instead of calling it Route 1.1 we call it Route 1.2 because it's a mixture of 1 and 2.

MEMBER GOLD: Exactly.

CHMN STAFFORD: So -- all right. So we'll need -- we'll need to do the -- to do the overview of the project description to describe Routes B, 4, D, 1 and

1.2.

Now, looking at the conditions, we have the subject to the Committee's findings. Do those need to stay in or do those -- I think those would stay in.

MS. GRABEL: I do think those would stay in.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: I'm sorry, Chairman. Where are you at?

CHMN STAFFORD: I'm looking at page 5 of the draft CEC. You're talking about the conditions. We're trying to give the applicant a head start on editing this before they bring it back to us. And make sure you e-mail Tod a word draft of it.

MS. GRABEL: Eli and Tod are best friends.

CHMN STAFFORD: Yeah. Good.

MS. HILL: Not really.

MS. GRABEL: For really. For conflict purposes, not really.

CHMN STAFFORD: They have a very collegial relationship, I'm sure.

MEMBER RICHINS: They go shopping for jackets together.

CHMN STAFFORD: I doubt that very much. I don't think I'd ever see -- I'd ever see Tod in that

jacket.

MR. LUSK: The conditions that I reviewed, Chairman, are appropriate. Although we did discuss possibly moving the language about undergrounding the distribution lines somewhere in that area.

CHMN STAFFORD: Yes. I'm moving through the conditions here.

All right. And then for the exhibit -- for exhibits to the CEC, I think we're going to need more than just the typical one. I think we have -- because I see, look at Condition 20, it has Exhibit B. Exhibit A, what was proposed in the application? Here it is. Yes. Exhibit A would be a map of all the routes. And then the final approved route would be Exhibit B.

MEMBER HILL: Final approved routes.

CHMN STAFFORD: Routes. Yeah. That's -- we can -- is it route or routes? Because it's one, it's only going to be one route. There's just alternative --

MS. GRABEL: I think you've approved three alternative routes.

CHMN STAFFORD: Routes. Okay.

And then going down, December 1 would be the right filing date for the notice of compliance.

Oh, another thing I was going to suggest was adding a condition that kind of puts in there what

the applicant is committed to do. I think it's Slide 245 on TEP-8.

We talked about the TEP commitments about undergrounding distribution where they're putting lines.

MS. GRABEL: Yep.

CHMN STAFFORD: If we could add that to the conditions.

MS. GRABEL: Do you have a preference as to location? We can just find a good place to propose it for you all.

CHMN STAFFORD: As long as it's in there I think it'll be fine. And you can add at the end, you could put it somewhere it talks about other things. We can always move it tomorrow. Just important thing is it gets in there someplace.

MS. GRABEL: Yep.

CHMN STAFFORD: And then the findings of fact and conclusion of law, are there any of those that we think need to come out, Members?

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm not sure about this, but I have never seen a CEC that has so much detail about the evidence. And while I certainly don't object to anything with the modifications that have been proposed

in 11 and 12, I certainly don't object to any of the findings that are indicated. It's just not been my experience that all these details have been put in the findings of fact.

And I'm wondering why the applicant has proposed that they be so much more detailed than they have been in previous CECs.

MS. GRABEL: Thank you. Member Little, the reason is because we're asking the Committee to make a legal finding, and we thought that that finding needed to be predicated on facts that were spelled out in the order.

In case there was an appeal or if the Commission was interested in kind of reviewing the order and the thought process that went into making that finding.

MEMBER LITTLE: I don't object to it. I think that we may see in the future CECs that have similar kinds of detail in them. But I agree that I think that -- I think the one thing it'll make it much easier for the Commission to understand what -- upon what we based our decision.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: In some of -- I don't think

I'm close enough. Hold on.

In some of these findings I feel like TEP has drafted statements that I feel like need to be reviewed by the other parties. Like other parties' positions; right?

So I think Mr. Dempsey and Mr. Lusk should look at things where it says City of Tucson says this. Or Underground Arizona says this. I didn't see one for Banner, but there might be one for Banner. So that might be helpful for those folks to take a look at those pieces.

I think Item No. 5 around cost and multipliers, I think that we want to see some edits to that section, to reflect the conversation that we had yesterday. I think this was drafted before the conversation that we had yesterday.

MS. GRABEL: Notice I didn't use multipliers in my closing statement.

MEMBER HILL: I know, I appreciate that. And --

CHMN STAFFORD: I'm not recognizing that $86 million figure either.

MR. LUSK: I think that's the cost to build a preferred route underground.

MR. DEMPSEY: Do you have to include a

cost?

MS. GRABEL: Yes.

CHMN STAFFORD: I don't think we -- I don't know about the number-wise, but I'm just -- I don't recall that number from the record.

MS. GRABEL: The 86 million is the cost to build the entire preferred route. And then the 65 we've been talking about is when you subtract the overhead, which is the 22 million that's reflected in Section 5.

MEMBER RICHINS: There appears to be an extra digit in that number.

MEMBER LITTLE: Yes.

MS. GRABEL: Oh.

CHMN STAFFORD: There's that too, yeah.

MEMBER LITTLE: It's $8 billion.

MS. GRABEL: That's a really expensive line.

MEMBER RICHINS: I would prefer to remove this section entirely. I don't think it's necessary.

MS. GRABEL: Well, if the finding is premised on the incremental cost of underground construction --

MEMBER HILL: Then we should identify the incremental cost rather that bunch of other numbers related to different projects.

MS. GRABEL: Okay.

MEMBER HILL: But I think adding the incremental -- my personal opinion adding the incremental cost numbers in there I think is helpful.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I have one more comment about this same paragraph and that is for -- I would suggest that you put the cost is estimated to be as opposed to the cost is or the cost will be.

CHMN STAFFORD: Yes. Good point.

MEMBER RICHINS: Chairman, there's just a lot of language throughout this entire document that I find -- it just feels a little inflammatory that you're making statements for the record to prepare for a court case.

That's not where we do findings of fact, and I just, I don't know, I don't really -- I mean, just terms like band-aid, I find in there, project is excessive, I mean, those are just kind of feel a little elevated more than they probably should. So if we could find some better language to describe some of that stuff, or strike that altogether. I just -- I think it needs to really be tightened up.

MS. GRABEL: We can tone this down.

MEMBER RICHINS: Let's get -- yeah, let's away from language preparing for a legal proceeding and get more into language appropriate for a finding of fact.

CHMN STAFFORD: Yeah, and on the -- do we need to refer to the witnesses' testimony throughout it? Because typically that's not what we do in these.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: My time on this Committee, I don't recall a time maybe -- maybe we've added one finding of fact specific to the case. But in my opinion, these findings of fact are in the testimony.

CHMN STAFFORD: Yes.

MEMBER DRAGO: So I'm not sure, and I wanted to ask you, Chairman, is there a reason why we would have to articulate that summary in findings of fact?

CHMN STAFFORD: I think we need to have some in there because we're making the specific finding that -- well, it's a conditional finding -- the parties, the language the parties came up with.

I think some of this needs to be in there but not all of it. I think it could be trimmed down substantially.

I mean for -- I don't think -- I don't

think we need to cite the entire policy statement from the Commission. I think just refer to it, the Decision number, that should be adequate. We don't need to put the entire thing into the text of the CEC.

I think that -- I don't think you need, when you talk about number 4, that's in the record. I don't think you need to specifically call that out in the CEC. I don't -- number 5, I don't think we need to necessarily --

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: Yes, Member Somers.

MEMBER SOMERS: I think what has been submitted here earlier, the tone and tenor and the level of cooperation that is -- we finally have in the course of the last hour has changed considerably.

I think it would behoove the applicant to take this back with comments that have been heard, bill their usually hourly rate and maybe put together some language that more reflects the hope for cooperative movement forward so we can send some of this out.

MEMBER RICHINS: Chairman, I would be happy to take it and edit if the applicant would like. Unless you guys want to work together. Because what you're going to get from me is really, it's going to be a lot thinner. So my guess is that you want something more

suited for your purposes.

MS. GRABEL: We can do it. We've heard the Committee loud and clear. I will trim this way down. I will tone it way down. It will not sound like something that TEP's lawyer wrote.

CHMN STAFFORD: Okay. Good, because I --

MEMBER SOMERS: Or Dave Richins wrote.

CHMN STAFFORD: Yeah.

MS. GRABEL: Right.

CHMN STAFFORD: We need to find the happy medium.

MS. GRABEL: And Member Somers, as to the billable hour thing, the City of Mesa is also a client of mine, just FYI.

MEMBER SOMERS: Well, that's good to know.

MS. DE BLASI: And Chairman, this is Ms. De Blasi.

CHMN STAFFORD: Yes, Ms. De Blasi.

MS. DE BLASI: To Member Hill's point we did not -- Banner did not include anything here because it only has a preferred route which we support. And so we'll just wait to see what we get back from the applicant.

We would not want to add a whole bunch of language either. But if there are routes in there that

we're going -- which we've said fully D and 1 we have issues with, we can put something simple and that's not an issue.

MEMBER HILL: Thank you.

CHMN STAFFORD: Right. But you wouldn't have any issues with 1.2; correct?

MS. DE BLASI: If it went on D. If it was B, then perhaps, yeah.

CHMN STAFFORD: But you want B, 1.2.

MS. DE BLASI: B to 1.2 would avoid the issues, but since there's options we have to put it on the record. And obviously I've asked for the -- if there is something going on Ring Road that the right-of-way that's been requested for the corridor of 400 feet be narrowed to be only on the public road.

And that's simply because that condemnation process is going to delay it and we don't want to do that. So why have it there. But that would really be it.

CHMN STAFFORD: Right. So back to the exhibits. I think that we're going to -- for the preferred route, it's Exhibit TEP-32, the updated corridor map of the preferred route. This will also have to be --

MS. GRABEL: Yes, Mr. Bryner's actually

working on new maps as we speak.

CHMN STAFFORD: Okay. And then I hate to do this to you, but you'd have to go the same thing for the alternate routes.

MS. GRABEL: He knows that.

CHMN STAFFORD: Okay. And I think -- and I think the CEC can indicate that B-4 is the preferred route and then that 1, 1.2, and D are alternatives.

MS. GRABEL: Certainly.

CHMN STAFFORD: Is that acceptable to the Committee? I'm seeing nods in agreement.

MEMBER KRYDER: Yes. Yeah. It will be 1 and 1.2.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: I'm hearing no objections to --

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: The only thing I'm trying to -- would suggest is we somehow include this one favors residential, this one favors commercial. Or this one is less intrusive in residential, and this is less intrusive in commercial, so we separate the two.

Because the difference between -- hang on a second. The difference between the D route, D-1, or you

could also go B-1, we're still talking nonintrusive on residential.

CHMN STAFFORD: B would, because B goes through the neighborhood. It's going to go down Park.

MEMBER GOLD: Yeah, but D affects the hospital.

CHMN STAFFORD: Right. Right.

MEMBER GOLD: So it's still commercial.

CHMN STAFFORD: Right.

MEMBER GOLD: So if we somehow get in the commercial and the residential, so the Corporation Committee will know that we looked at residential and commercial pros and cons.

CHMN STAFFORD: I think we could add something in the beginning, in the description about the type of where the routes go in describing the preferred route and then the alternate route.

MEMBER GOLD: Yes.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I'm just wondering whether it might not be more appropriate, I see Mr. Gold's point, but I'm just wondering whether it might not be more appropriate to just indicate that some routes -- some of the approved corridors, I don't know, go through

neighborhoods more than others and some go through commercial areas more than others.

Because there really are, what, six combinations here that could be chosen. And I believe from the conversation our reason in giving and approving all these different corridors, routes, is to give the parties the options to figure out what's best for them, what works best for everybody. So --

CHMN STAFFORD: Yeah, I think some of the --

MEMBER LITTLE: Pointing some of that information out is good, but I don't think necessarily saying this particular combination, B-4 or B-1.1 or whatever is more commercial and one is more residential.

CHMN STAFFORD: Maybe we could have some sort of, like generic statement in the description saying we approved multiple -- a preferred route and alternatives to give them flexibility depending -- to vary what type of area the line would traverse or something to that effect.

MS. DE BLASI: Chairman.

MEMBER LITTLE: Yes.

MEMBER GOLD: Yes.

MS. DE BLASI: Chairman. Ms. De Blasi.

CHMN STAFFORD: Yes, Ms. De Blasi.

MS. DE BLASI: I know it's hard to tell who's speaking.

Just to point to that and not to belabor it, but I think once we get the route maps you'll be able to see along each route where, even though it might not have been called residential in the applicant's application, there is in fact a lot of residential along D and 1.

But that'll be easier to see once you get those. And then in terms of -- you know, I think if you're approving routes and route alternatives, I don't know that it really matters whether it's commercial or residential if you're telling the applicant you can go build any of these, the Commission's going to see that as they can build any of them.

CHMN STAFFORD: Right. But I think what we'll designate it as the main route as B-4 with approval of alternatives 1, 1.2 and D as alternatives.

MS. GRABEL: Correct. What we've done in the current draft is each segment is separately described. So I'll just put after B preferred route, after 4 preferred route, and then list the others alternative route, alternative route, alternative route.

CHMN STAFFORD: There you go. That works for me. Members?

MEMBER KRYDER: Yes.

MEMBER GOLD: Yes.

MEMBER LITTLE: Yes.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: I wanted to offer a couple of other comments on the findings of fact.

In finding of fact -- proposed finding of fact number 7, there's a lot of discussion there about the cost of not doing this project.

And I know that numbers were offered during testimony, but we didn't really go deep to understand factually how those numbers were calculated.

So I just don't see the relevancy of a paragraph like that at this point. So, I promise, you're going to love what I draft.

CHMN STAFFORD: I think most of this can come out, because we can just have more general statements like we typically do, and if anybody requires more information they're more than welcome to read the transcript and look through all the exhibits.

Okay. We know it's there because we lived it.

MEMBER HILL: Great. I'll let it go. I was just going through the numbers and there were some

that stuck out as more concerning than others. Like I do think there should be a good finding of fact around the importance of the Vine Substation, so that was one that was important to me, too.

MS. GRABEL: Absolutely.

CHMN STAFFORD: Right. That one should definitely remain. All right. Well, I think the applicant and Mr. Lusk have some -- I guess more the applicant because --

MS. GRABEL: He's like, what?

CHMN STAFFORD: I think Mr. Lusk is out of the --

MR. LUSK: I'm going home, Chair.

CHMN STAFFORD: All right. Well, so you can e-mail, make sure you e-mail Tod the Word version of what you've got, and send him -- send him both, send him the like a PDF of what you -- the final product you have and a Word version because I'll introduce them tomorrow as Chairman's 1 and 2. 1 being the PDF and 2 being the Word document we'll work off of.

And then get -- if you -- the sooner you get that to him, the better. Because what I'll end up doing is I'll look at the Chairman's 2, the Word document, and I'll make changes to take out stuff that we don't need, typically which is, you know, the numbers to

each one, make sure we have -- we need to -- I guess you can do this now because I'll tell you, because you can remove Member Fontes off the list of participants because he was not here under any of the hearing.

However Mr. French was for the first week, so his name would remain but that will confuse people later on the vote count when they read the CEC. But it is what it is.

MS. GRABEL: You could put an asterisk and say at the bottom "excused for second part of hearing."

CHMN STAFFORD: You could try that. We'll see how that goes. Do you have --

MS. HILL: We just apologize that he had to go on the tour.

Do you have sufficient direction from the Committee to craft that?

MS. GRABEL: We do. We're going to do it right now.

CHMN STAFFORD: Excellent. All right. With that I think that we can end the hearing for today, and then we will be back tomorrow morning at nine a.m., and we will begin to vote on the CEC and we'll be very happy to wrap this up in the allotted time. I see Ms. Hill, do you have something to add?

MS. GRABEL: Ms. Hill made a really good

point. Are we sure we can have the maps by nine tomorrow? Okay. I want to make Mr. Bryner can confirm that's possible. Getting the thumbs-up. All right. We're good.

CHMN STAFFORD: Okay. Yeah, because we'll want the corridor narrowed to where it couldn't go the next street over type of thing.

All right. Anything else? Thank you all. I appreciate the TEP and the City of Tucson sitting down and working together to try to craft a resolution because I think we can all agree this is an important project and it needs to happen.

We can all do what's best for the people of Arizona, the citizens of Tucson, and we will be able to -- you guys will be able to maintain reliable and affordable electric service because that's what -- that's why we're here.

All right. With that, let's -- we're recessed until tomorrow at nine.

(Proceedings recessed at 4:24 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206(J)(1)(g)(1) and (2).

Dated at Phoenix, Arizona, July 24, 2024.



JENNIFER HONN, RPR
Arizona Certified Reporter
No. 50885

I CERTIFY that GLENNIE REPORTING SERVICES, LLC, has complied with the ethical obligations set forth in ACJA 7-206(J)(1)(



GLENNIE REPORTING SERVICES, LLC
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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE — LS-363

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, ET SEQ., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE MIDTOWN RELIABILITY PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 138 KV TRANSMISSION LINE ORIGINATING AT THE EXISTING DEMOSS-PETRIE SUBSTATION (SECTION 35, TOWNSHIP 13 SOUTH, RANGE 13 EAST), WITH AN INTERCONNECTION AT THE PLANNED VINE SUBSTATION (SECTION 06, TOWNSHIP 14 SOUTH, RANGE 14 EAST), AND TERMINATING AT THE EXISTING KINO SUBSTATION (SECTION 30, TOWNSHIP 14 SOUTH, RANGE 14 EAST), EACH LOCATED WITHIN THE CITY OF TUCSON, PIMA COUNTY, ARIZONA.	DOCKET NO. L-00000C-24-0118-00232 LS CASE NO. 232 EVIDENTIARY HEARING

At: Tucson, Arizona

Date: July 19, 2024

Filed: July 24, 2024

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME X
(Pages 2082 through 2288)

GLENNIE REPORTING SERVICES, LLC
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By: Jennifer Honn, RPR
Arizona CR No. 50558

ACC - Docket Control - Received 7/25/2024 3:13 PM
ACC - Docket Control - Docketed 7/25/2024 3:40 PM

VOLUME I	July 8, 2024	Pages 1 to 246
VOLUME II	July 9, 2024	Pages 246 to 525
VOLUME III	July 10, 2024	Pages 526 to 789
VOLUME IV	July 11, 2024	Pages 790 to 857
VOLUME V	July 12, 2024	Pages 858 to 1044
VOLUME VI	July 15, 2024	Pages 1045 to 1324
VOLUME VII	July 16, 2024	Pages 1325 to 1558
VOLUME VIII	July 17, 2024	Pages 1559 to 1864
VOLUME IX	July 18, 2024	Pages 1865 to 2081
VOLUME X	July 19, 2024	Pages 2082 to 2288

INDEX TO PROCEEDINGS

ITEM	PAGE
OPENING STATEMENTS	
Applicant by Ms. Grabel	10
Banner Health by Ms. De Blasi	34
City of Tucson by Mr. Lusk	38
Underground Arizona by Mr. Dempsey	41
Public Comment Session	186
Presentation of Virtual Tour	
Route B-4	509
Route D-1	547
Route A	619
Route C	638
Route 2	663
Route 3	687
Route 5	702
Route 6 (virtual tour not played)	719
Index to the Tour	
Stop 1	801
Stop 2	813
Stop 3	828
Stop 4	833
Stop 5	845
Stop 6	847

//

INDEX TO PROCEEDINGS (continued)

ITEM	PAGE
CLOSING STATEMENTS	
Applicant by Ms. Grabel	1882
Banner Health by Ms. De Blasi	1896
City of Tucson by Mr. Lusk	1906
Underground Arizona by Mr. Dempsey	1931
Deliberations	1942
Vote	2282

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-1	Application for Certificate of Environmental Compatibility for TEP (Midtown Reliability Project)	48	1225
TEP-2	Map of Proposed Project	21	1225
TEP-3	Testimony of Clark Bryner	52	1225
TEP-4	Testimony of Chris Lindsey	54	1225
TEP-5	Testimony of Erik Bakken	57	1225
TEP-6	Testimony Summary of Larry Robinson	386	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-7	Testimony Summary of Jason Jocham	948	1225
TEP-8	Witness Presentation	49	1225
TEP-9	TEP Ten-Year Plans	58	1225
TEP-9A	Excerpt from TEP Ten-Year Plan for 2024 (Jan. 31, 2024)	58	1225
TEP-9B	Excerpt from TEP Ten-Year Plan for 2023 (Jan. 31, 2023)	58	1225
TEP-9C	Excerpt from TEP Ten-Year Plan for 2022 (Jan. 31, 2022)	58	1225
TEP-9D	Excerpt from TEP Ten-Year Plan for 2021 (Jan. 29, 2021)	58	1225
TEP-9E	Excerpt from TEP Ten-Year Plan for 2020 (Jan. 31, 2020)	58	1225
TEP-9F	Excerpt from TEP Ten-Year Plan for 2019 (Jan. 31, 2019)	58	1225
TEP-9G	Excerpt from TEP Ten-Year Plan for 2018 (Jan. 31, 2018)	58	1225
TEP-9H	Excerpt from TEP Ten-Year Plan for 2017 (Jan. 30, 2017)	58	1225
TEP-10	Exhibits Regarding Notice Requirements	58	1225
TEP-10A	Notice of Hearing	58	1225
TEP-10B	Affidavits of Publication and Tear Sheets for Arizona Daily Star	58	1225
TEP-10C	Affidavit of Publication and Tear Sheet for Arizona Bilingual News	58	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-10D	Letters to Public Facilities re Copies of Application for Public Viewing	58	1225
TEP-10E	Map of Notice of Hearing Sign Locations	58	1225
TEP-10F	Photographs of Sign Placement	58	1225
TEP-10G	Example of Sign Contents	58	1225
TEP-10H	Notice of Service to Affected Jurisdictions	58	1225
TEP-10I	Notice of Service to Pascua Yaqui Tribe	58	1225
TEP-11	Receipt of Filing Fee	58	1225
TEP-12	Virtual Tour	504	1225
TEP-13	Tour Itinerary/Script/Protocol	254	1225
TEP-14	Summary of Public Outreach	929	1225
TEP-15	Proposed Certificate of Environmental Compatibility	1225	1225
TEP-16	Undergrounding Presentation	950	1225
TEP-17	Undergrounding Cost Analysis Study	948	1225
TEP-18	Testimony Summary of Sara Baker	--	Not Utilized
TEP-19	Property Valuation Study	1573	1574
TEP-20	Additional Project Comments	929	1225
TEP-21	Letter of Support from University of Arizona	368	1225

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-22	Letter of Support from Tucson Metro Chamber	930	1225
TEP-23	Letter of Support from Southern Arizona Leadership Council	931	1225
TEP-24	Email from State Historic Preservation Office re Project Coordination	433	1225
TEP-25	Commission Staff Letter re Midtown Reliability Project	171	1225
TEP-26	Gateway Corridor Zone Overlay Map	872	1225
TEP-27	National Grid Report re Undergrounding high voltage electricity transmission lines	1035	1225
TEP-28	City of Tucson Chicanes Examples	936	1225
TEP-29	Letter of Support from Boys & Girls Clubs of Tucson	1225	1225
TEP-30	Supplemental Undergrounding Cost Analysis	1012	1225
TEP-31	Updated Project Cost Summary and Comparison	1057	1225
TEP-32	Updated Corridor Map for Preferred Route	1211	1225
TEP-33	Tucson Sentinel News Article re Street	1197	1225
TEP-34	Excerpt from SRP High Tech Interconnection Project	1443	1575
TEP-35	University Area Plan	1443	1444

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
TEP-36	Alternative Proposed Certificate of Environmental Compatibility	1804	1805
BUMCT-1	Testimony Summary of Mark Barkenbush	37	1322
BUMCT-2	Witness Presentation	37	1322
COT-1	SARGENT & LUNDY UNDERGROUND COST ANALYSIS Report SL-015392	1405	1439
COT-2	Testimony Summary of Mark Castro	1405	1439
COT-3	CITY OF TUCSON MAJOR STREETS AND ROUTES PLAN	1405	1439
COT-4	City of Tucson Election Official Voter information re: Proposition 412 (English and Spanish Version)	1405	1439
COT-5	City of Tucson Major Streets and Routes	1345	1439
COT-6	Link to Plan Tucson: City of Tucson General & Sustainability Plan (2013)	1405	1439
COT-7	Tucson Electric Power vs. City of Tucson and City of Tucson Board of Adjustment Under Advisement Ruling Pima County Superior Court Case No. C20235484	1405	1439
COT-8	WITNESS PRESENTATION MARK CASTRO	1405	1439
COT-9	Statement of Karin Uhlich, Councilmember Ward 6	1575	1575

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
COT-10	Statement of Kevin Dahl, Councilmember Ward 3	1575	1575
COT-11	Statement of Richard Fimbres, Councilmember Ward 5	1879	1879
UAZ-1	Sargent & Lundy Report SL-015392 Revision 0 Report	1461	1537
UAZ-2	Sargent & Lundy Report SL-015392 Revision 7 Final Report	1537	1537
UAZ-3	Excerpts of TEP CEC Application from Line Siting Case 192	1537	1537
UAZ-4	Excerpts of SRP Testimony from Line Siting Case 195	1537	1537
UAZ-5	Excerpts of SRP Exhibits from Line Siting Case 195	1462	1537
UAZ-6	Excerpts of Chandler Exhibits from Line Siting Case 195	1537	1537
UAZ-7	Excerpts of APS Testimony from Line Siting Case 198	1537	1537
UAZ-8	Excerpts of APS Exhibits from Line Siting Case 198	1208	1537
UAZ-9	Excerpt of SRP District Board Meeting Notice & Agenda 3/28/2024	1455	1537
UAZ-10	APS Central Phoenix Project Website	1537	1537
UAZ-11	Underground Arizona Website	1525	1537
UAZ-12	PDI2 Utility Undergrounding Lifecycle Cost Guide	1537	1537

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-13	S&C Electric Company: The Changing Economics of Utility Investment in Undergrounding	1480	1537
UAZ-14	Utility Dive: As wildfires losses mount, will commercial insurers decline to cover utilities?	1480	1537
UAZ-15	EIA Electric Power Annual Report, Table 11.1: Reliability Metrics for the U.S. Distribution System	1481	1537
UAZ-16	10th International Conference on Insulated Power Cables: Can cables last 100 years?	1174	1537
UAZ-17	TEP 2023 Annual Report 10K, Note 4.	1537	1537
UAZ-18	UMC Banner Letter of Opposition	1538	Not Utilized
UAZ-19	Not Utilized (See TEP-35)	1433	Not Utilized
UAZ-20	TEP-University of Arizona Special Contract	1538	Not Utilized
UAZ-21	TEP-City of Tucson Franchise Agreement	1011	1540
UAZ-22	Zoning Examiner's Decision on TEP Special Exception Permit	1426	1540
UAZ-23	Zoning Administrator's Determination on Gateway Corridor	1540	Not Utilized
UAZ-24	University Area Plan Excerpts	1540	1541

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-25	APS Tempe Town Lake 230 kV OH/UG Conversion Project Slides	1540	Not Utilized
UAZ-26	Blank	1540	Not Utilized
UAZ-27	Plan Tucson Goals & Policies	1542	Not Utilized
UAZ-28	Plan Tucson Chapter 3	1542	Not Utilized
UAZ-29	Timeline of Events by Underground Arizona	1542	Not Utilized
UAZ-30	Arizona Revised Statutes 40-360.06	1542	Not Admitted
UAZ-31	Arizona Revised Statutes 48-621	1547	Not Utilized
UAZ-32	Streetscape Photos by E. Alster	1547	Not Utilized
UAZ-33	Visit Tucson Annual Report	1547	Not Utilized
UAZ-34	TEP 2023 Annual Report 10K Excerpts	1543	1544
UAZ-35	TEP 2020 Annual Report 10K, Cash Flow Statement	1543	1544
UAZ-36	APS 2023 FERC Form 1 Excerpts	1455	1544
UAZ-37	APS 2022 FERC Form 1 Excerpts	1462	1544
UAZ-38	APS 2021 FERC Form 1 Excerpts	1462	1544
UAZ-39	APS 2020 FERC Form 1 Excerpts	1462	1544
UAZ-40	APS 2019 FERC Form 1 Excerpts	1462	1544

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-41	APS 2018 FERC Form 1 Excerpts	1462	1544
UAZ-42	Excerpt of APS Exhibits from Line Siting Case 169	1543	1544
UAZ-43	UNS Electric Study: Appendix D: Property Values effects from High Voltage Overhead Transmission Line: Study Methodology, Analysis, and Conclusions	1485	1544
UAZ-44	Tucson.com: Tucson City Council approves 20-story tower at Speedway and Campbell	1489	1544
UAZ-45	KGUN9: Apartments, retail development coming to edge of UArizona campus	1489	1544
UAZ-46	Tucson.com: A new 10-story student housing complex is going up in Tucson	1489	1544
UAZ-47	Utility Dive: Arizona regulators OK 10% Tucson Electric Power rate increase, eliminate EV incentive	1478	1544
UAZ-48	Tucson.com: Tucson Electric Power's $$99.5M rate increase proposal hits residential customers hardest	1478	1544
UAZ-49	TEP.com: Investing in Our Community	1547	Not Utilized
UAZ-50	TEP.com: Ratepayer Assistance	1547	Not Utilized
UAZ-51	FINRA Series 86 & 87 lines Examination Content	1451	1544

//

INDEX TO EXHIBITS (continued)

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
UAZ-52	Arizona Real Estate Broker lines Examination Content	1547	Not Utilized
UAZ-53	APS 2023 Ten Year Transmission Plan Excerpts	1544	1544
UAZ-54	Excerpts of TEP CEC App Case 192, pages 11-17, 867-869	1461	1545
UAZ-55	Southwire 138kV and 230kV XLPE Product Brochures	1545	Not Utilized
UAZ-56	Study: Underground power lines can be the least cost option	1480	1547
UAZ-57	APS vs. Town of Paradise Valley (1980), Arizona Supreme Court	1545	Not Utilized
UAZ-58	Excerpts of SRP Exhibits from Line Siting Case 175	1462	1547
UAZ-59	Tables of Sargent & Lundy and Comparables	1186	Not Utilized
UAZ-60	TEP Reliability Press Release	1546	Not Utilized
UAZ-61	Excerpts of APS Testimony FORM Line Siting Case 196	1546	1547
UAZ-62	Witness Presentation	1450	1547
CHMN-1	Proposed Form of CEC	2096	For Reference
CHMN-2	CEC with Edits	2096	For Reference

BE IT REMEMBERED that the above-entitled and numbered matter came on regularly to be heard before the Arizona Power Plant and Transmission Line Siting Committee at Tucson Reid Park Doubletree, 445 South Alvernon Way, Tucson, Arizona, commencing at 9:29 a.m. on July 19, 2024.

BEFORE: ADAM STAFFORD, Chairman

GABRIELA S. MERCER, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
NICOLE HILL, Governor's Office of Energy Policy
R. DAVID KRYDER, Agricultural Interests
SCOTT SOMERS, Incorporated Cities and Towns (via videoconference)
MARGARET "TOBY" LITTLE, PE, General Public (via videoconference)
DAVE RICHINS, General Public
JOHN Gold, General Public

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CHMN STAFFORD: Let's go back on the record.

We have -- can you please pull up Chairman's Exhibits 1 and 2.

So Chairman's 1 should be on the left and Chairman's 2 on the right. That's the Word document number 2 that we'll be editing.

Mr. Ancharski has graciously agreed to be our scrivener.

MEMBER GOLD: Wait. I'm having trouble finding it. Oh, CEC. Thank you. Thank you.

CHMN STAFFORD: All right. We have them on the tablet so that way you can read it at your own pace. You don't have to -- we don't have to scroll the whole thing up and down on the main screen.

MEMBER GOLD: Okay.

CHMN STAFFORD: So let's start with the introduction.

MEMBER HILL: Mr. Chair, I offer the motion to approve the language in the introduction paragraph, and after we vote on the complete -- after we vote on the total -- totality of the CEC, we can enter the vote.

CHMN STAFFORD: Yes. Thank you.

Do I hear a second?

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say aye.

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the introduction is adopted.

Moving on to the overview project description.

MS. DE BLASI: Chairman?

CHMN STAFFORD: Yes.

MS. DE BLASI: I have a request of when we were e-mailing about this. Just a clarification on the language for Routes D and 1, if I could ask the applicant.

The language says, "Where it turns south to an alignment in Route D," on line 22. Where it turns --

CHMN STAFFORD: Which page?

MS. DE BLASI: I'm sorry, on page 3.

CHMN STAFFORD: Page 3.

MS. DE BLASI: "Where it turns south to an alignment centered between East Lester Street and North Ring Road." Does that mean it's going on the private property or is it to the north side of the private

property?

I was trying to understand we have strong -- we haven't seen the right-of-way maps yet, but obviously the testimony of all of the impacts up there, particularly related to the emergency services and the route that the helicopters take right through that area, particularly at night, we don't want to create dangers.

So if we can get clarification there, if we can agree to narrow that right-of-way to the public right-of-way.

CHMN STAFFORD: If you want to pull up the map with the right-of-way for D and put on the left-hand screen, please. That should answer the question.

I believe it's wide enough to allow construction in either place. It would be up to the applicant if they choose -- if they do select that route where to put it. It gives them flexibility to put it on either Ring Road or Lester Road or in between them, I believe.

Is that correct, Ms. Grabel?

MS. GRABEL: That is correct, Mr. Chairman, although we are comfortable just saying centered on Lester Street, if that makes Banner more comfortable.

MS. DE BLASI: Yeah. Given time is of the essence and the private condemnation issues, we would not

want to hold up, you know, that litigation could be substantial because of that taking of that area.

So if it's clearer for the applicant and we can just remove that -- that private area, that would be probably better for giving them, you know, the ability to build anywhere in the public right-of-way.

CHMN STAFFORD: Well, I think the Committee's option was to allow the applicant to put it in either place, but it would be upon the applicant to select.

And it's unlikely that they'll select that route. But the alternative that was provided, my understanding -- Committee Members, correct me if I'm wrong -- would allow them to build it in either place.

If they wanted to pursue Ring Road they'd have to deal with Banner. So I think that's probably a motivating factor for them not to select this particular option, but my thought was -- my recollection from the discussion with the Committee yesterday, that they wanted to provide them that option.

MS. DE BLASI: Yeah, we understand that, but once it's, you know, approved, they have the ability to do it, so it would be our very strong preference, again, because of the emergency services, that's the only entrance to the hospital for the public and for people

coming in as an emergency who are not coming by ambulance.

So we just, we want to avoid as much as possible, you know, limiting those community services. So if we can do that by taking that out, that would be our preference.

CHMN STAFFORD: Members?

MEMBER GOLD: I'm not following. The entrance of the hospital is where?

MS. DE BLASI: Along Ring Road, that is the only entrance to the hospital for the public and for folks -- and for the employees coming in, most of the employees that Mr. Barkenbush testified, but also for emergency services not coming by ambulance, which does happen.

MEMBER GOLD: So Ring Road is the east-west road north of the hospital?

MS. DE BLASI: Correct. That's a private road. It's also the helicopter, the agreed-to route when they can. Obviously helicopters have to land into the wind, so there are probably issues, times when they can't do it, but that's the agreed route that Mr. Barkenbush testified that the helicopters try to land, they come up Campbell and go along Ring Road to the helipads that are not far from there, to avoid noise over the neighborhoods

and such.

So if they were to build a line right there, obviously that takes out the ability to do it, because it's at the same level as the helicopters are landing. It's about the same height.

MEMBER GOLD: Actually the landing pads are a lot higher.

MS. DE BLASI: No, they're about six or seven stories, same as the power line.

MEMBER GOLD: How tall would the power line be along Campbell Avenue? I'm going to ask somebody from TEP.

MR. BRYNER: Between --

MEMBER GOLD: Between Grant and Lester -- Lester?

MR. BRYNER: So I think --

MEMBER GOLD: From Grant down.

MR. BRYNER: Yeah, between Campbell on Vine?

MEMBER GOLD: On Campbell between Grant and Vine.

CHMN STAFFORD: Member Gold, the portion they're speaking about is where it comes -- where it heads west from Campbell to Vine Substation. They could either take it -- the corridor would allow them to put it

either on Ring Road, in which case they'd have to deal with condemnation of the property from the hospital, or the right-of-way on Lester Road which is the public road to the north. I believe there's an area in between that they could run it through as well.

My thought that the Committee voted -- the position of the Committee yesterday was to allow them the option to put the -- either to deal with the hospital and put it on Ring Road or -- or put it on Lester Road to go to take this route.

That was the route that I believe the Committee approved and if the applicant pursues that route then they'll have to deal with the hospital. But my understanding was that the route the Committee was considering and was approving did not foreclose the use of Ring Road.

MEMBER GOLD: Well, my question again is the poles that are 138kV poles are 75 to 85 feet with the average being 80 feet. That's the testimony you gave earlier, and how tall is the helipad? Seven stories? How tall is that?

MS. DE BLASI: Yes, that was the testimony.

MEMBER GOLD: How tall is seven stories?

MS. DE BLASI: It's about 85 feet. Each floor is 15 feet, the hospital.

MEMBER GOLD: So 15 times 7 is 70 and 35, it's 105 feet. That's a lot taller than the telephone poles or the power lines.

MS. DE BLASI: I believe Mr. Barkenbush's testimony was that they were about the same level.

MEMBER GOLD: I think the power line views are at the same level. I mean, if it's --

MR. BRYNER: So if I could just jump in, so on the map on the screen, we represented just doing a hundred-foot-wide corridor on Lester. As the applicant we're comfortable with that.

I know we expressed the desire to have that flexibility, but knowing where Banner stands, I think we'd rather go the path of least resistance. I know it means greater impact on the neighborhood.

MEMBER GOLD: Wait. That's precisely the point. It means greater impact on the neighborhood in residential areas. So I'm saying I think we leave it as it is, because if you have 105-foot, say 100-foot helipad and the power lines are 80 feet, that's a 20-foot difference. Helicopters don't come up to a helipad, they come from a higher altitude down to a helipad. So I would say, Mr. Chairman, just leave it as it is.

CHMN STAFFORD: I'm fine with that.

MS. DE BLASI: Chairman, could I just ask,

since you have the pointer, Mr. Bryner, could you point to where that would be next to the emergency landing area? It's right next door to it.

CHMN STAFFORD: The emergency landing area is on the ground, but the helipads they use are the higher ones.

MS. DE BLASI: It's also the access for construction and all other issues. So that's -- it's not just that it would be landing on the building. I think those pilots need maximum flexibility to be able to land wherever they need to land. So that's why I'm asking, if the applicant doesn't have an issue with it, we would ask that it be definitive now. It just makes for clearer decision-making later.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: So as a member I'm hearing there's a negotiated solution here. However, I hear Member Gold's concern. And let's talk about that for a minute. Those would be 138kV poles along Lester; correct?

MS. GRABEL: Correct.

MEMBER DRAGO: Okay. Aren't we going to remove distribution within the next 10 years of 2027?

MR. BRYNER: Correct. We'll remove 46kV

and distribution that would be along -- today it's on -- grabbed the wrong remote -- so there's 46kV in this alleyway on the other side of the lots north of Lester, it's 46kV and distribution runs along there.

If that 46kV will be removed and if this were the path that we were going along, that distribution will be placed underground.

MEMBER DRAGO: So my take is let's go with the option of Lester, because the project no doubt needs to get done and condemnation is to me a really bad option.

So that would be my vote is let's go with Lester because there's going to be less congestion of poles in the future.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Are we selecting the route now or will we be selecting the route later?

CHMN STAFFORD: We are approving a -- we are approving the preferred route and then three alternatives. D is one of those alternatives. And it's up to the applicant to select which one they will build.

MEMBER GOLD: That's what I understood it to be. Thank you, Mr. Chairman.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Since the applicant has agreed to change the language to an alignment centered on East Lester Street for approximately .4 miles, I move that we change the language as I just said.

CHMN STAFFORD: All right. Well, let's move the project description, and then we can move to amend it, and then we'll have to move it as amended and then we'll vote on it.

MR. LUSK: Mr. Chair, can I just ask a question?

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: So the approximate mileage, is that for the preferred route or does that need to be a range of distances?

CHMN STAFFORD: Each -- each leg has its own distance.

MR. LUSK: I'm talking about for the overview project description in that language, does that need to be a range of mileage since you're approving more than one?

MS. GRABEL: That is for the preferred route.

MR. LUSK: So is it just for the preferred route that that language is applicable to?

MS. GRABEL: It is. That is the preferred route.

CHMN STAFFORD: What's the longest possible route that's available?

MR. BRYNER: The longest possible route of those on the table is the preferred route at 8.5.

CHMN STAFFORD: There you go, then.

MR. BRYNER: At least is 7.9.

CHMN STAFFORD: Right. So, yeah, approximately 8.5 covers it all, I think, then if that's the longest possible route, it can't be longer than that, I think it's covered. I don't think we need to be more specific than that.

Particularly in light of the fact that it's -- the applicant's most likely going to build the preferred route anyway, so that's -- unless something happens that changes, that's -- they have some kind of thing to fall back on. But my understanding is that if this is approved the applicant will pursue the preferred route. These others are just options for them in case something goes wrong.

MEMBER GOLD: Is that your assumption as well, Ms. Grabel?

MS. GRABEL: Mr. Chairman, Member Gold, that's certainly the path of least resistance, and I

think it's best for the City and TEP to pursue.

MEMBER GOLD: And you make that choice.

MS. GRABEL: TEP makes that choice.

MEMBER GOLD: TEP, so whether we leave it in, change it, take it out or anything else doesn't really affect the choice. You're going to choose the preferred route.

MS. GRABEL: Correct.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: I have a different perspective. If you have something in writing, we have no ability to change going to Lester. If, in fact, that route is chosen and TEP says no, let's use Ring, it's easier.

So I'm surprised that we would not be as specific as we can in these alternative routes because they can be used. It's in writing. I mean, so just because they're saying that they're likely going to use the -- whatever route it is, what is it?

MS. GRABEL: The preferred route.

MEMBER DRAGO: The preferred route. I mean that doesn't mean anything.

MEMBER LITTLE: That's true.

MEMBER DRAGO: Am I correct?

CHMN STAFFORD: Yeah, I mean, the description of alternative Route D is probably moot because it's not going to be used by the applicant.

MS. DE BLASI: But once it's on the -- to Member Drago's point, Chairman, once it's on paper, you know, they have the right to do it.

CHMN STAFFORD: Right.

MS. DE BLASI: So we're just trying to avoid that down the road. If they're not going to use it anyway, then it should be easier to take it off.

MEMBER GOLD: That's a point as well, Mr. Chairman.

CHMN STAFFORD: Well, does the Committee want to only grant approval of the preferred route and not give them the alternatives, or do you want to give them the alternatives? I mean, that's --

MEMBER GOLD: No, no.

CHMN STAFFORD: -- our decision to make.

MEMBER GOLD: No, I think we leave -- in that case we leave it in and rely on TEP working with Banner and the City of Tucson to choose the most appropriate route, and I believe with the due diligence you've done already that you will choose the most appropriate route.

MEMBER DRAGO: Mr. Chairman.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Drago and then Member Little.

MEMBER DRAGO: So maybe I'm misunderstanding here. So what is the reluctance, at least, I don't want to speak for the whole Committee but some of you, not to change the alternative from Ring to Lester? Can someone explain the reluctance to do so?

MEMBER KRYDER: Mr. Drago, could you refer, please, to the lines and the section you're speaking about so that we can all be with you?

MEMBER DRAGO: Yeah. Thank you, Member Kryder.

So can I get some help from TEP? And can you outline Ms. De Blasi's challenge that she would like to remove?

MS. GRABEL: Certainly.

MEMBER DRAGO: Ring Road.

MS. GRABEL: Yes, I think it's being highlighted right now. The discussion is in the description of the alternative Route D, and it's on lines 22 and 23.

And rather than having an alignment centered between East Lester and Ring Road, which would involve obviously Ring, and Banner objects to that. The

applicant will agree and I believe Member Little moved to have that language say where it turns south to an alignment centered on East Lester Street and delete the reference to North Ring Road.

MS. DE BLASI: Correct. As it's shown on the left, Member Drago.

CHMN STAFFORD: The right-hand screen.

MS. DE BLASI: Yes, on the map, Chairman.

CHMN STAFFORD: Okay.

MS. DE BLASI: As it's shown right now, that's what we're asking for.

MEMBER DRAGO: Thank you for that.

And then Member Kryder --

MEMBER KRYDER: Yes, sir.

MEMBER DRAGO: Does that make sense now that that change would prevent any future disagreement between Banner and TEP in the event alternative Route D is used?

MEMBER KRYDER: That was really not my request to you. My request was simply refer in the document by line and section so that we can follow you. So I'm going to say thank you, yes, that makes it clear where you're talking about. I'm still thinking about the rest of it.

MEMBER DRAGO: Okay. Member Kryder, the

second screen up there, that's the section we'd like to change.

CHMN STAFFORD: If you're looking at your tablet it's going to be page 3 of the proposed CEC.

MEMBER KRYDER: I have it in front of me on my tablet. Thank you very much.

MEMBER GOLD: Mr. Chairman, might I ask that you actually show it on the map? Just with your pointer so I can see what it is everybody's talking about? So what street is that?

MS. GRABEL: That is Lester.

MEMBER GOLD: And where's Ring?

MS. GRABEL: It is immediately south of it.

MEMBER GOLD: Oh.

CHMN STAFFORD: Where's the rest of D?

MR. BRYNER: Let me explain. So the rest of D is going north on Campbell and this is map panel, I think 4, within a series of map panels. So you're not seeing it on this screen.

CHMN STAFFORD: Okay. The entirety of Route D is not drawn on this map.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: Yeah, this is the just the detail of where it jogs off of Campbell. This is the

commercial route. Ms. De Blasi, does Banner benefit from the upgrade of this project, the power upgrades, or is it indifferent?

MS. DE BLASI: No, not directly, Member Richins. No, they already have their power through the University of Arizona substation, the -- Mr. Bryner knows the proper name for it. Generally speaking, with reliability and such to the system, but they're not taking any power from this.

MEMBER RICHINS: And in the event that you guys lose power you go right on to emergency generators; correct?

MS. DE BLASI: Correct.

MEMBER RICHINS: Okay. All right. Thanks.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: After identifying where Lester and Ring are parallel I do not disagree with taking Ring out.

CHMN STAFFORD: Well, if we're taking Ring out and running that section through the neighborhood, I question --

MEMBER GOLD: It's modifying D.

CHMN STAFFORD: Right. I question even keeping D at that point. My understanding was the point

of D is as an alternative to B, because B went through the neighborhoods and then D would not. It would -- instead of ignoring the residents, it would ignore the hospital.

And that was the alternate route. So if we're going to -- I don't think there's a point in keeping D if we're going to run a chunk of the line through the neighborhood anyway.

MR. LUSK: Mr. Chair, maybe I can clarify just a little bit my understanding.

So Lester is the outer edge of that neighborhood. And I think the conversation yesterday was about how on Campbell the route -- and we can't necessarily see it here -- but the route on D runs only on Campbell, it doesn't go through that neighborhood, and then runs -- connects to Vine through Lester, which is the edge of that neighborhood between the hospital and the neighborhood.

I don't think anybody really thinks that's going to happen nor wants that, but that was -- I think that was the conversation yesterday.

MS. DE BLASI: And Chairman, if I might add, that's a very small, very, very small section of that whole line. And as you can see along Campbell, there's a lot of residential along Campbell. So I don't

think you're avoiding that much residential by --

CHMN STAFFORD: Well, I've driven this route, and the setback from Campbell to the houses is a lot more than -- if you put it down Lester you're running it right in front of those houses, you're in their front yard.

So there's a huge difference between the distance of houses to the line on Campbell as opposed to if you put it on Lester. So if you're going to put it on Lester I'd just as soon take D out of the equation.

MS. DE BLASI: Chairman, that's why we objected to strongly to D.

CHMN STAFFORD: Right. And then that would be -- that was the issue. I thought the way it was phrased because the D route would be annoying to the hospital as opposed to the neighborhood. But if you do B it goes right through the neighborhood and doesn't impact the hospital.

I thought that was the two choices we were providing to the applicant through the benefits of these routes. And if we're not -- if we're just going to put D through Lester through the neighborhood anyway, I don't see a point in keeping D as an alternative.

But I'll defer to the members on their wishes about that.

MEMBER DRAGO: Mr. Chairman, I completely agree with you, and now that you've talked about it I completely understand what you're saying. So I'll let the other Committee members speak before there's a vote. But thank you for the explanation.

CHMN STAFFORD: We still have to move the section before we start amending it. So I just want to make sure we follow the procedure. So if we get a motion to --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: -- adopt the overview section then we can entertain motions to amend it.

Member Little, you had a question.

MEMBER LITTLE: I disagree. I feel strongly that we should leave D in. It only has a small section that goes adjacent to a neighborhood. I agree they'd be in their front yards, but it's a great deal less than the preferred route. And I really would like to see D remain.

And with that comment I move the section of the CEC entitled "Project Description."

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

MEMBER DRAGO: Yes.

CHMN STAFFORD: Member Drago.

MEMBER DRAGO: Member Little, are you voting to keep Ring in or out? As you just voted.

MEMBER LITTLE: My preference would be to keep Ring in to give TEP the option. However, if they feel comfortable with -- well, that would be my preference.

However, I would rather leave Ring in with the center line on Lester than not leave -- I'm sorry. I would rather leave D in with the center line on Lester than not have D in at all.

MEMBER GOLD: I agree with Member Little.

MEMBER DRAGO: I agree with Member Little based on her further explanation.

CHMN STAFFORD: All right. So do we need a motion to amend the description of alternate Route D on page 3?

MEMBER GOLD: I make that motion.

MEMBER DRAGO: I second.

CHMN STAFFORD: And what exactly are we changing? So the motion -- is the motion to change the language on line 25 where it reads between East Lester Street and North Ring Road to just alignment centered on East Lester Street? Is that --

MS. DE BLASI: Chairman, I believe that that's correct.

MEMBER DRAGO: Chairman, I would defer to TEP to help us rewrite this so that it's exactly what you're able to do.

MS. GRABEL: Thank you, Mr. Chairman.

What I just heard the Committee say is they wanted to give us the flexibility and leave Lester and Ring as alternatives.

And if that's the case I don't think we need to make any changes to alternative Route D that does exactly what the Committee decided yesterday. I think the change that does need to happen is an amendment to this map that includes both Lester and Ring. But to give comfort to Banner, we do not want to engage in condemnation, so it's unlikely that that will be the end route selected.

CHMN STAFFORD: Right. And that was my understanding of the discussion yesterday. We wanted to give the utility the option even though it was highly unlikely that they would not -- it was highly unlikely that they would pursue it. But that was -- I thought that was the point, so.

MR. DEMPSEY: May I make a comment?

CHMN STAFFORD: Mr. Dempsey. Yeah.

MR. DEMPSEY: Please, so also, I want to make sure, and you guys, it seems like we're past it at

this point, but the idea also is that if we have the underground, that's a place to underground. So it's not just aboveground. So you might need to underground on Lester and then go back to Campbell, just FYI.

MEMBER GOLD: So changing the language, instead of between East Lester and North Ring Road, it would be on either East Lester or North Ring Road.

CHMN STAFFORD: I'm inclined just to leave the language as it is and amend the map. And then if the applicant decides to pursue that line on either Ring Road or Lester Road, they have to deal with the consequences and the legal issues. And that's for them to decide whether it's worth it or not for them to pursue it, but based on what the applicant is saying this entire hearing is that they -- if they can build B-4, they're going to build B-4.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I concur in your analysis just made and believe that we would be a wiser Committee to retain the language as it is presented here, lines 20 through 28, regarding alternative Route D. Retain it as is.

CHMN STAFFORD: That would be my preference. But they would need to change the map;

correct? We'll get to the map. These are typically voted on the maps last to make sure --

MEMBER KRYDER: That is correct. The map would need to be changed, the language would not. Am I okay with that, Ms. Grabel?

MS. GRABEL: Yes, Member Kryder, you are. And we're on the map right now.

MEMBER GOLD: In that case I make that motion.

CHMN STAFFORD: To amend the map?

MEMBER GOLD: Yes.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: I do have a couple of words that I'm struggling with in these, and it's when we call it the planned upgraded Vine Substation. There's no station there now. It's a planned station. I don't know how we upgrade a planned station. There's no station there. You can't upgrade something that doesn't exist. You're planning to have a station.

So I would strike the word "upgraded," and just leave "planned substation." But just -- to me there's just -- I don't know why my brain spun on that, but it just seemed odd to describe a planned substation that's upgraded.

MS. GRABEL: That's fine with us.

MEMBER KRYDER: What line are you referencing, please?

MEMBER RICHINS: It would be on line 24 and line --

CHMN STAFFORD: It's throughout this section.

MEMBER RICHINS: -- 15 and any other lines in the section that just use the word "upgraded," because it just is inconsistent.

The other reason I'm struggling is we don't have purview over substations, and I'm reluctant to mention substations at all because of that.

CHMN STAFFORD: It's the termination point of the route --

MEMBER RICHINS: Yes, but it's a point of reference.

CHMN STAFFORD: It's a reference point, but we're not proving --

MEMBER RICHINS: Understood. Understood.

CHMN STAFFORD: We know where it is on the map and that's where we're going off.

MEMBER KRYDER: Thank you very much.

MEMBER RICHINS: When we get into the findings of fact there's another section there with

discussing -- I just want to make sure we're all clear.

CHMN STAFFORD: Okay. So if someone -- who made the motion to amend the language that they withdraw that motion.

MEMBER HILL: Mr. Gold, and I second that.

MEMBER GOLD: I withdraw.

CHMN STAFFORD: Okay. All right. So then, Member Richins, do you want to move the upgraded before -- after planned in every reference to the Vine Substation in this section?

MEMBER RICHINS: So moved.

MEMBER MERCER: Second.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the word "upgraded" is removed in reference to the planned Vine Substation.

MEMBER KRYDER: In which lines, please?

CHMN STAFFORD: In all lines in Section B, "Overview Project Description."

MEMBER KRYDER: Thank you.

CHMN STAFFORD: And I guess we could make conforming changes throughout the document so we don't have to deal with this every time.

MEMBER KRYDER: Thank you.

CHMN STAFFORD: All right. Member Little.

MEMBER LITTLE: Mr. Chairman, yes, I would like to make one other suggested change I guess, I'll make it as a motion so we don't have to go round and round.

It is engineering as well as mathematical --

CHMN STAFFORD: What page are you on, please?

MEMBER LITTLE: I'm talking in general.

CHMN STAFFORD: Oh, okay.

MEMBER LITTLE: It is mathematical and engineering common notation to put a zero before the decimal when you have a number that is less than 1. So instead of .6 miles it would be 0.6 miles.

And it's done both ways in this. I would like to see it done with the zero in front of the decimal so there is no question we're not talking about six miles, we're talking about 0.6 miles.

CHMN STAFFORD: Seconded.

MEMBER LITTLE: Throughout the entire document, please.

MEMBER GOLD: She made a notion. Has it been seconded?

MEMBER MERCER: I second that motion.

CHMN STAFFORD: All right. Thank you, Member Mercer. Further discussion.

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the motion passes. We'll add the zero before the decimal point for all numbers that currently only have the decimal point and a number after it.

So the rest of --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I do have a question on page 6. That's part of the description. Can I go that far? I know we aren't all the way there yet.

CHMN STAFFORD: You're talking on page -- yeah, that is part of the description, it's everything between. It's under B before you get to conditions.

MEMBER LITTLE: I have never seen the Committee approve anything as part of a description before. And I personally object to the overhead construction.

CHMN STAFFORD: Well, that's all we can approve.

MEMBER LITTLE: That's true. But I've never seen that, the description says the description. It doesn't say --

MEMBER KRYDER: What is your objection to it other than philosophically?

MEMBER LITTLE: Just the fact that a description is a description. It doesn't give an opinion of the Committee.

MEMBER KRYDER: However, a description, if incorrect, leads the Committee offline, would you agree?

MEMBER LITTLE: I just am saying I don't believe it belongs in the description.

MEMBER KRYDER: That's a different statement.

CHMN STAFFORD: We have the vote count up in the prior section. And then it just reiterates it again in this section with reference to the routes.

Ms. Grabel, because it looks like from the redline that language came from a prior CEC.

MS. GRABEL: Yes, Mr. Chairman. I was going to say, this is the language we've used, I think in all of our prior CECs. The overhead is different and I don't object to removing it because as you said you have only jurisdiction to oversee overhead construction. But the approval is pretty standard and it's just a way of introducing the maps.

CHMN STAFFORD: Right. That's my recollection of it. I can't pull up -- I can't pull up a prior CEC to compare it, but --

MEMBER LITTLE: That's -- I withdraw my statement.

CHMN STAFFORD: Okay. So would you like to make a motion to remove -- to amend, we're looking at page 6, line 1. Now, it currently reads, "The Committee approves the overhead construction of the preferred route," you just want to remove "the overhead," just "overhead," it says, "the Committee approves the construction of the preferred route and" --

MEMBER LITTLE: I think we're just approving the route, aren't we?

CHMN STAFFORD: Right.

MEMBER LITTLE: So why don't we say the Committee approves the preferred route, B-4, and alternative routes and then continue on. So just remove

the words "overhead construction." Remove the words "the overhead construction of."

MEMBER HILL: If that's a motion I second it.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment is made.

MEMBER RICHINS: Chairman, can we go up to line 17 or 19 on the same page? I've never heard of a stravenue, I think it's something --

MS. GRABEL: That got me too, but that's a thing.

MEMBER RICHINS: Yeah, yeah, I looked it up on the maps, it's like it says "stra," S-T-R-A. So I just want to make sure we weren't --

CHMN STAFFORD: Yeah, I noticed that -- I noticed that too, it's like a combination of street and avenue, and when I was looking at this morning, I didn't have the maps to actually and look is it a street or an avenue. So that will need to be corrected.

MS. GRABEL: It doesn't, Mr. Chairman.

MEMBER GOLD: Mr. Chairman, I looked that up. There is such a thing as a stravenue, and it is only in the city of Tucson in the entire country and it does not go east-west or north-south, two of them going diagonally and they are called stravenues and it is defined.

MEMBER RICHINS: Mr. Lusk, can you confirm that?

MR. LUSK: I can.

MEMBER RICHINS: Only Tucson, man.

CHMN STAFFORD: So that is not a typo.

MS. GRABEL: No.

CHMN STAFFORD: Okay. I thought it was an area where things got moved around from street to -- but it's an actual thing. Okay.

MS. GRABEL: I kept trying to correct it in the application and Clark kept putting it back in.

MEMBER LITTLE: And I can confirm that Mr. Bryner and I had a conversation about it yesterday.

CHMN STAFFORD: The stravenues.

MEMBER GOLD: We actually were on one when we took the tour.

MEMBER MERCER: Yes.

MEMBER KRYDER: Absolutely.

CHMN STAFFORD: It looked like a street or an avenue, I couldn't tell it was a stravenue.

MEMBER RICHINS: Had I known that I would have bought a T-shirt, I mean, that's cool, come on, stravenue.

CHMN STAFFORD: Okay, well, that's not a typo, we'll keep it in.

Are there any further amendments to the project description?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Not hearing anything from the rest of the Committee about alternatives or other recommendations, I move approval by the Committee of overview project description.

CHMN STAFFORD: As amended.

MEMBER KRYDER: As amended. Thank you.

MEMBER HILL: Second.

MEMBER GOLD: Second.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the overview project description as amended is adopted.

MEMBER MERCER: Mr. Chairman.

CHMN STAFFORD: Moving on to Condition --

Yes, Member Mercer.

MEMBER MERCER: Member Little had made a motion back on page 3, she had made a motion and then we went into discussion and we never went back to her motion that was second by I believe Member Hill.

CHMN STAFFORD: A motion to do --

MEMBER MERCER: I don't remember but we just never went back to it.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: On page 6, Member Little asked to strike three words.

CHMN STAFFORD: It was the overhead construction. That has been removed. It just says, it reads, "The Committee approves the preferred route B-4 and alternative Routes D, 1 and 1.2."

MEMBER DRAGO: So it was changed, then.

CHMN STAFFORD: That was Little's motion. I believe there was the prior motion to amend the description of alternative Route D was withdrawn.

MEMBER MERCER: Oh, it was withdrawn, okay. Never mind.

MR. LUSK: Mr. Chairman, there were two motions by Member Little, one was related to the overhead construction, the other was the zeros.

CHMN STAFFORD: That was passed.

MR. LUSK: Both of those were passed.

CHMN STAFFORD: Those passed. So yeah, I have a note we'll add the zeros and then we're going to remove -- Member Richins' motion to remove the "upgraded" when it refers to the new substation. It's going to be a planned substation not an upgraded planned station.

MEMBER MERCER: Now, Mr. Chairman, the one that was -- I was referring to was way before any of that because we went into discussion and then we kind of went all the way to page 6.

But we were -- Member Little was still on page 3, and it was about the wording on the removing Ring Road, and then Member Gold said something about making a motion to change it, and then they discovered that what Member Little was saying was the correct thing so we never came back to what.

MEMBER LITTLE: Mr. Chairman.

MEMBER GOLD: No, we did.

CHMN STAFFORD: I think we did and the

motion was withdrawn.

MEMBER MERCER: Okay.

CHMN STAFFORD: The option was we decided not to amend the language in Route D and to allow them to still -- the TEP the discretion to either pursue -- if they pursue Route D they can either go through -- they can either go along Lester or Ring Road, and that they would deal with the consequences of that should they choose that route.

MEMBER MERCER: Okay. I was -- I was just, I go, we never came back to that one.

CHMN STAFFORD: Okay.

MEMBER MERCER: Thank you.

CHMN STAFFORD: All right. Thank you. So we're -- are we ready to move on to conditions now?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Moving on to conditions in order to get it on the table for discussion, I move approval of Condition Number 1.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

MR. LUSK: Mr. Chair, just briefly for a question again.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: There's a defined term "time period".

CHMN STAFFORD: Yes.

Mr. Lusk: In line 11, should that again refer to the defined term, or is that acceptable?

CHMN STAFFORD: I don't understand your question.

Mr. Lusk: The 10-year time period, the 10-year time frame is defined in sentence 1 at line 10. And then at the end of that second sentence.

CHMN STAFFORD: Oh, I see, so on line 13 it should read as the project being in service within the time period.

MR. LUSK: Yes, I believe that's -- I'm just asking if that should be a change.

CHMN STAFFORD: Yes, I think so, yes. Well, we'll have to -- a member will have to make the motion, but I hear your suggestion.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Looking at Condition Number 1, line 13, I move that we remove the words "a ten-year time frame" and place in lien thereof "time period."

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment is made.

MEMBER RICHINS: Chairman, I move to approve Condition 2 through --

CHMN STAFFORD: We have to move 1 as amended before we go into 2.

MEMBER RICHINS: Oh, I move, yeah, to approve 1 as amended. Sorry.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 1 as amended is approval.

MEMBER RICHINS: Thank you, Chairman.

Recognizing that the Committee will still

need time to review 2, 3, 4, 5 and 6, I move to approve conditions 2, 3, 4, 5, and 6 as written.

MEMBER LITTLE: Second.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I don't understand why we would look at these in bulk rather than look at them one by one since there's been so much diligence put into preparing them one by one.

CHMN STAFFORD: Most of these ones I believe are pretty standard --

MEMBER KRYDER: At the point that I would be asked about this, I would not approve all of those but would prefer that the Committee look at the conditions one by one by one.

CHMN STAFFORD: Are you asking Member Richins to withdraw his motion?

MEMBER KRYDER: No, I'm asking that we take a vote and I get to vote no on it.

MEMBER RICHINS: Chairman, as I stated, you know, recognizing that Commission members need a few minutes to look at those, these are standard form with no changes that we've approved over and over and over in prior CECs.

So in the interest of time and that I've

been here for two weeks, I'd really like to go home and move this along. That's the only reason I did that. Thank you.

CHMN STAFFORD: All right. Well, the only -- these are typically the standard conditions we do adopt. The only difference is being in Condition 3 and 4, they have the new language added subject to the Committee's findings as set forth in the Findings of Fact and Conclusions of Law. That's the only change to these conditions that we've adopted in every CEC that we issue.

MR. LUSK: Mr. Chair, may I just briefly --

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: There is an additional change in 2.

MEMBER KRYDER: Absolutely.

MR. LUSK: It's on line --

CHMN STAFFORD: 22?

MR. LUSK: 22. Correct.

CHMN STAFFORD: Yeah, I think -- I think that change has been made in quite a number of these.

MEMBER KRYDER: Mr. Chairman, we have a motion on the floor with regard to Dave's doing 2, 3, 4, and 5 all together.

CHMN STAFFORD: I haven't heard a second yet.

MEMBER HILL: Member Little.

MEMBER LITTLE: Second.

CHMN STAFFORD: Member Little seconded it. Okay. Well, I need to review them before I call it. I guess, further discussion?

MEMBER HILL: We could look at amendments by each section, so if folks have amendments for Section 2, let's -- let's do that.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I acknowledge my colleague's desire to get home. I think we've all been here more or less the same number of hours. And I find that just this discussion has extended it rather than shortened it.

So therefore I would ask that we call the question here about combining conditions 2, 3, 4, and 5, take a vote on this and we'll go with it from there.

MEMBER RICHINS: Chairman, of note the motion is not to combine them, but to approve them as to form as written with amendments that are in place already. I don't know why this is complicated. But if we have a vote, let's do it.

MEMBER KRYDER: It's not --

CHMN STAFFORD: So no one has any

amendments to offer to conditions 2, 3, 4, 5.

MEMBER KRYDER: Yes.

MEMBER LITTLE: Mr. Chairman, we're not saying that. We're just saying let's look at them all together in one motion.

CHMN STAFFORD: That is --

MEMBER KRYDER: And Mr. Chairman --

CHMN STAFFORD: That is the motion on the floor. Member Richins has moved for the adoption of conditions 2, 3, 4, and 5. It has been seconded. We're now in further discussion.

MEMBER HILL: Mr. Chairman, I have a --

CHMN STAFFORD: Does any member have any amendments to propose to any of these sections?

MEMBER HILL: I have a question.

CHMN STAFFORD: Yes, Member Hill.

MEMBER HILL: So I'm starting with Section 2, and I see the amendment or the change that's proposed is to within five miles to one mile. Can you, because I am the newest member of the Committee, can you talk to me a little bit about past CEC practices and notice radiuses?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I believe the motion on the

floor is to look at these jointly rather than separately. And this is the very reason I oppose looking at them jointly rather than separately is because I read slowly and I think slowly, and I just heard my colleague, Member Hill, have a proposal. I heard -- and I personally have a proposed change to Number 2 and perhaps the others. And I strongly prefer that we look at these individually rather than in bulk like a big sandwich.

CHMN STAFFORD: Right. But if -- if we vote the motion now and it passes, then there won't be amendments to these. They'll be adopted as written.

MEMBER KRYDER: Well, then please repeat motion on the floor for us.

MEMBER RICHINS: Okay. I withdraw the amendment rather than beat the shit out of it further. I am so done with that. Let's -- the amendment is withdrawn. Let's do 2. You've completely --

CHMN STAFFORD: The motion --

MEMBER RICHINS: I just want to go home.

CHMN STAFFORD: The motion was withdrawn. So let's -- can we get a motion to adopt Condition Number 2? Can we get a motion to adopt Condition Number 2?

MEMBER LITTLE: So moved.

MEMBER KRYDER: Excuse me. The person

seconding the member's combined motion --

CHMN STAFFORD: That motion has been withdrawn.

MEMBER KRYDER: Yeah, their second as well.

CHMN STAFFORD: The motion for -- to adopt conditions 2, 3, 4, 5 has been withdrawn.

The motion on the floor now is to adopt Condition Number 2.

MEMBER KRYDER: Thank you.

CHMN STAFFORD: Do I hear a second?

MEMBER MERCER: Second.

CHMN STAFFORD: All right. Further discussion. I believe we discussed about the radius one or five miles. Do I hear motion to change it to five from one? Or to keep it at one?

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: I heard Member Hill wanting an explanation. And I don't think we've heard that.

CHMN STAFFORD: And I think I'm trying to recall from prior CECs, I think they've been one or five depending on the circumstances. Perhaps in this circumstance since it involves neighborhoods, I think perhaps five is a more appropriate radius to notify as opposed to one. So if we could get a motion to amend one

to five, we can proceed with that.

MS. GRABEL: Mr. Chairman, can I be heard on that quickly?

CHMN STAFFORD: Yes.

MS. GRABEL: So the reason we changed it here is five is very appropriate for a rural area where you have to go further to bring in more people. The one-mile radius here is what we used for the public outreach and notification that reaches 100,000 homes and businesses, a quarter of a million people. It really will notify everybody that would be impacted by this project.

If we did five miles, that's hundreds of thousands of people that aren't as impacted. I think that the change makes sense in a more urban involvement.

MEMBER HILL: Thank you, Ms. Grabel. That makes sense. I prefer to leave it at the one-mile radius. Thank you.

CHMN STAFFORD: All right.

MEMBER SOMERS: Mr. Chair.

CHMN STAFFORD: One at a time. Let's see. I have Member Somers.

MEMBER SOMERS: Mr. Chair, I just want to know if the City of Tucson has any issue with it. I agree with the explanation that's been given.

MR. LUSK: Thank you, Member Somers. Just so I understand, I believe this is the center line from the entire project, so one mile each way.

CHMN STAFFORD: Yes, exactly. Every section of the line, wherever it is, a mile radius of line.

MR. LUSK: That's fine with the City. Thank you.

MEMBER SOMERS: Yeah, I agree with the explanation then. One mile is sufficient.

CHMN STAFFORD: All right. So there's no amendment. Condition 2 has been moved and seconded.

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 2 is adopted.

Moving on to Condition 3.

MEMBER HILL: Mr. Chair, I move approval of Condition 3.

MEMBER GOLD: Second.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion?

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 3 is adopted. Condition 4.

MEMBER GOLD: Mr. Chairman, I move Condition 4.

MEMBER MERCER: Second.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion?

MEMBER DRAGO: Yeah, I do.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: I like the preface to each of these. That seems to be new. Am I correct?

MS. GRABEL: Yes, Member Drago, you are correct, because for this condition in which it's requiring us to seek permits for construction from the City, that is subject to the Committee's findings that it makes, that you've determined to make in this case.

MEMBER DRAGO: I like it. Thank you.

CHMN STAFFORD: Further discussion?

MR. LUSK: So Mr. Chair, I'm sorry. Just for the record the City of Tucson would have an issue with any situation where they're not required to at least obtain the approvals, whether or not the Committee finds

that it's appropriate to grant the CEC.

CHMN STAFFORD: Right. That's the whole point of the later Findings of Fact and Conclusions of Law that the City and the applicant agreed to. That will be later in the document. We are on Condition 4.

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 4 is adopted. Condition 5.

MEMBER MERCER: Mr. Chairman, I move Condition 5.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Moving on to 6.

MEMBER HILL: Mr. Chair, I move Condition 6 approval.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: All right. Moving on to 7, this is new language proposed by the applicant. I believe that the applicant proposed this in consultation with SHPO. Is that correct, Ms. Grabel?

MS. GRABEL: That is correct, Chairman Stafford, and I believe SHPO actually helped craft this language.

MEMBER HILL: Mr. Chair, I approve -- I move approval of Section 7.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

MEMBER DRAGO: Mr. Chair, give me a minute to read through this.

CHMN STAFFORD: Okay.

MEMBER DRAGO: I think this is a great add.

CHMN STAFFORD: I agree.

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 7 is adopted.

Condition 8.

MEMBER HILL: Mr. Chair, I move approval of Section 8.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 8 is adopted.

Condition 9.

MEMBER HILL: Mr. Chair, I approve -- I move approval of Section 9.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 9 is adopted.

Condition 10.

MEMBER HILL: Mr. Chair, I move approval of Section 10.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 10 is adopted.

Condition 11.

MEMBER GOLD: Mr. Chairman, I move Condition 11.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 11 is adopted.

Condition 12.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Member Little -- Member Hill -- excuse me.

MS. HILL: It's my fault. It's my fault.

I'm so sorry.

MEMBER HILL: I mostly just have a question about this one. Maybe I don't completely understand why it would change dates, or can someone help me understand why we went this direction.

MS. GRABEL: Certainly. I'm happy to address that. The difference between this case and other cases is because we're going through the special exception process, it could take us longer to figure out what project we're actually pursuing.

And so the original language had that trigger date be upon approval of the CEC, but we might exceed that because we're going through the special exceptions process in this case, so we thought it might be best to figure out which project we're pursuing and then back up the date.

So this is six months prior to route selection and approval by the City of Tucson. We'll put the signs in the relevant neighborhoods rather than putting them all over town wherever the project might be impacted.

MEMBER HILL: Thank you. With that explanation I'd like to move approval of Section 12.

MEMBER GOLD: Second.

MEMBER SOMERS: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 12 is adopted.

Condition 13.

MEMBER MERCER: Mr. Chairman, I move Condition 13.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

MEMBER DRAGO: I do.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: Mr. Chairman, I don't think it needs to be included but was Pascua Yaqui a tribe we communicated with? Or was this more about --

MEMBER HILL: That's a great addition.

MS. GRABEL: Member Drago, we did communicate, they were one of our impacted stakeholders, and we in fact treated them like an affected jurisdiction in this matter, although they're not by statute an affected jurisdiction.

MEMBER DRAGO: In that case, I would move

that we add Pascua Yaqui in here somewhere.

MEMBER HILL: Second.

MEMBER RICHINS: Chairman.

CHMN STAFFORD: You add it between ASLD and known builders. Is that your motion, Member Drago?

MEMBER DRAGO: That make sense, yes.

MR. BRYNER: It's P-A-S-C-U-A.

CHMN STAFFORD: Did we -- all in favor of Member Drago's motion, say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, it carries.

I would entertain a motion to adopt 13 as amended.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move the adoption of Condition 13 as amended.

MEMBER GOLD: I second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 13 as amended is adopted.

MEMBER GOLD: I move Condition 14, Mr. Chairman.

MEMBER KRYDER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 14 is adopted.

Now, 14 -- 15 is additional -- is an additional condition which puts into the CEC conditions the improvements that the applicant has agreed to make as part of this project having to do with the removal of the substations and parts of the 46kV system.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: In order to open discussion, I move approval of Condition 15.

MEMBER MERCER: Second.

MEMBER GOLD: Second.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion?

MEMBER KRYDER: Mr. Chairman.

Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: This is a question for TEP. As I recall, there would be removal of a number of things, wires, poles and other equipment, does other equipment include the small stations that are being removed from work? Or must they be or should they be specifically included?

MR. BRYNER: That would include all the equipment, breakers, transformers, switches, anything within those substations.

MEMBER KRYDER: Thank you.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: Does this restrict them from removing anything before 2027? Or they may be removing things as they are proceeding with their project?

CHMN STAFFORD: No, it only recites that their estimates begin in '27. They won't be able -- my understanding is they would not be able to start removing it until they get the new line in place because that's when we'll allow them to remove the 46kV. Until the

138kV line is in place, they still need the existing 46kV to serve their customers.

MEMBER GOLD: But what if they complete the lines before 2027? You know, TEP is very efficient.

MS. GRABEL: Member Gold, if we finish sooner we'll start the removal sooner. But we use the word "estimate" for that purpose.

MEMBER GOLD: Okay.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 15 is adopted.

Condition 16.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move approval of Condition 16 as indicated here.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

MEMBER KRYDER: I have a question, Mr. Chairman.

CHMN STAFFORD: Of me or the applicant?

MEMBER KRYDER: Of TEP.

It says here you're going to be required to notify all of the attachers within six months. Is that adequate time? Did you all write this? So you are comfortable with it?

MS. GRABEL: We did we draft this, Member Kryder.

MEMBER KRYDER: Thank you. That's clear.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 16 is adopted.

Condition 17.

MEMBER MERCER: Mr. Chairman, I move Condition 17.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

MR. LUSK: Mr. Chairman.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: The City was just discussing

with the applicant that it might be helpful for them that we include the applicant shall collaborate with each neighborhood and/or existing neighborhood association, which gives them a point of contract within the neighborhood as opposed to the nebulous entire neighborhood.

CHMN STAFFORD: Ms. Grabel.

MS. GRABEL: We have no objection to that change. It makes good sense.

MEMBER LITTLE: Mr. Chairman, I move the suggested language be added.

MEMBER HILL: Second.

MEMBER LITTLE: Language suggested by Mr. Lusk be added.

MEMBER SOMERS: Second.

CHMN STAFFORD: "The applicant should collaborate with each neighborhood and/or neighborhood association."

Further discussion of the amendment?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment

to 17 is adopted.

Can I get a motion to adopt 17 as amended?

MEMBER HILL: So moved.

MEMBER MERCER: Mr. Chairman.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 17 as amended is adopted.

Condition 18.

MEMBER LUSK: Mr. Chair.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: Just to again help with flexibility, it may be usable to remove "department of transportation and mobility" since there are two departments that the applicant will be working with.

CHMN STAFFORD: Let's -- can I get a motion to adopt 18 and then we can discuss amending.

MEMBER KRYDER: Mr. Chairman, I move the approval of Condition 18 as printed.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

All right. Mr. Lusk, your suggestion was to do what exactly?

MR. LUSK: Remove "department of transportation and mobility" to allow flexibility because there are more than one department that will be implicated.

CHMN STAFFORD: Do I have a motion?

MEMBER RICHINS: Yes, on 18 I move to remove the words suggested by Mr. Lusk, "department of transportation and mobility." I think the idea here is just to work -- just to say City of Tucson.

MR. LUSK: Correct.

MEMBER RICHINS: Okay.

MEMBER HILL: Second.

MEMBER SOMERS: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Opposed?

(No response.)

MEMBER KRYDER: Oh, sorry.

CHMN STAFFORD: Hearing none,

Condition 18 -- amendment to 18 is adopted.

Now we can get Condition 18 moved as amended.

MEMBER GOLD: So moved.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion? Member Kryder.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I'm not sure who wrote this, but help me understand what right-of-way enhancements means. Is that those little gizmos that got put out in the driveway?

CHMN STAFFORD: Those are the chicanes, yes.

MEMBER KRYDER: Okay. The chicanery. All right.

MS. GRABEL: Yes, Member Kryder. The examples of what the enhancements would be are included in what are now lines 1 and 2 of -- I can't see the page. But it's multi-use pathways, chicanes, artwork, and landscaping. Just things to make it look prettier.

MEMBER KRYDER: I just needed to know. Thank you so much.

CHMN STAFFORD: All right. Condition 18 as

amended has been moved. Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 18 as amended is adopted.

Condition 19.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move approval of Condition 19 as printed.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 19 is adopted.

Condition 20.

MEMBER MERCER: Mr. Chairman, I move Condition 20.

MEMBER GOLD: Second.
CHMN STAFFORD: Further discussion?
(No response.)
CHMN STAFFORD: All in favor say "aye."
(A chorus of "ayes.")
CHMN STAFFORD: Opposed?
(No response.)
CHMN STAFFORD: Hearing none, Condition 20 is adopted.
Condition 21.
MEMBER HILL: Mr. Chair, I move approval of Condition 21.
MEMBER MERCER: Second.
CHMN STAFFORD: Further discussion?
(No response.)
CHMN STAFFORD: All in favor say "aye."
(A chorus of "ayes.")
CHMN STAFFORD: Opposed?
(No response.)
CHMN STAFFORD: Hearing none, Condition 21 is adopted.
Condition 22.
MEMBER KRYDER: Mr. Chairman.
CHMN STAFFORD: Member Kryder.
MEMBER KRYDER: I move approval of

Condition 22 as printed.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 22 is adopted.

Condition 23.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move approval of Condition 23 as printed.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Could we see Exhibit B or someone describe what we're looking at when we do look at Exhibit B.

CHMN STAFFORD: Well, yeah, we will after we get through the order proper, we will turn our attention to adopt Exhibit A and Exhibit B.

MEMBER KRYDER: Okay. But what is Exhibit B? That is my question.

CHMN STAFFORD: Exhibit B is the -- Exhibit A is the depiction of all the routes proposed by the applicant in the application.

Exhibit B is the maps, the detailed maps of the routes approved by this Committee and the corridors that we are approving.

MEMBER KRYDER: Okay. And so reading from line 14 on, it says, "Exhibit B does not authorize a right-of-way greater than 100 feet for the transmission line, nor does it grant the applicant exclusive rights," et cetera.

CHMN STAFFORD: Right.

MEMBER KRYDER: Do I -- this is a question to TEP. Was there a section in one of the proposed routes that had a broadened right-of-way?

MS. GRABEL: Thank you, Member Kryder. There are sections that allow corridors greater than 100 feet. But what this does, it says we can't get a right-of-way greater than 100 feet. And a right-of-way is just land entitlement in a corridor, is what this Committee grants to allow us flexibility to figure out where that right-of-way is going to be located.

I would note as I'm reading this now there

are multiple corridors that you're approving, so you might want to make that plural.

MEMBER KRYDER: Thank you, ma'am, Ms. Grabel, for the correction of my understanding of right-of-way and corridor.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: In lieu of what Ms. Grabel says and another note that we're going to change in Exhibit B, should we not amend this to the designation of corridors in the certificate as shown in Exhibit B to be amended or as amended?

CHMN STAFFORD: Well, we don't -- Exhibit B is going to be Exhibit B after we get done. We'll move after we get done through the language of it, we'll look at the maps and make sure that the corridors -- that the corridor is what it says.

I mean, we don't -- sometimes we spell out the corridor in the language, but typically it's the map that shows the width of the corridor. But the language of the CEC says that's -- the corridor does not give them -- this one does -- they don't get exclusive rights in that corridor, but they'll end up with this narrower right-of-way, which is 100 feet.

But then, for example, if the corridor's

wide enough so they could put it on either side of a street, but once they pick a side the right-of-way is going to be there.

MEMBER GOLD: Understood.

CHMN STAFFORD: And someone else is free to do something on the other side of the street. It won't be a competing electricity utility, but at least, you know, they just don't -- someone else could put something there because they won't be occupied by the line.

MEMBER GOLD: But it says the designation of the corridor in the certificate.

CHMN STAFFORD: Would you like move to amend it to plural?

MEMBER GOLD: Yes, that's the amendment I would like to make.

MEMBER DRAGO: Second.

MEMBER RICHINS: Chairman. Further discussion?

CHMN STAFFORD: Yes, further discussion.

MEMBER RICHINS: There's part of me here, and I don't know, so I'm just going to brainstorm this just a little bit. Seems to me right-of-ways are governed by the franchise agreement, and that you could simply make a reference to the authority that's vested in the franchise agreement for the City to Grant

rights-of-way as appropriate.

Because usually when we're in urban areas or rural areas, we're going through land that is not governed by a franchise agreement. And, you know, so we're out in Pinal County and western Maricopa County, that's not on issue, but here it is. And that's the governing document for right-of-way grant by the City of Tucson to the utility.

So it seems to me like just a simple reference to the franchise agreement and the need for the City and the applicant to find that right-of-way would be appropriate.

CHMN STAFFORD: Yeah, but I -- I see what you're saying but I think what we're saying is we're giving them the right-of-way, but it's still subject to the City. I mean, they need -- without the franchise agreement how are they going to -- that's what -- I think this is necessary but not sufficient for them to occupy the right-of-way.

MS. GRABEL: And Member Richins, I think there are also areas that some of the routes traverse that are not within the city right-of-way, so this also limits what we would be able to do on private areas, et cetera.

And I think the fact that the franchise is

going to be renewed in 2026 could also -- reference to that just feels a little precarious to me.

MEMBER RICHINS: Well, I mean, you're going to have to be subject to the new franchise agreement anyway, so --

MS. GRABEL: I agree with that. I also --

MEMBER RICHINS: And you're going to negotiate it; right? Sorry.

MS. GRABEL: I also concur with Chairman Stafford's assessment.

CHMN STAFFORD: So item 23 has been moved and seconded. Any further discussion?

MEMBER HILL: Mr. Chairman.

MEMBER GOLD: Wait. Wait. Wait. We -- we're voting on the amendment to change it from corridor to corridors.

CHMN STAFFORD: Oh, right. That's what's pending, the motion to amend corridor to corridors.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Is that in line 13 or line 15 or both?

MEMBER GOLD: Both.

MEMBER KRYDER: That should be specified.

CHMN STAFFORD: There are two. The word

"corridor" appears twice in this paragraph. It should be "corridors" in both sections. Is that the motion, Member Gold?

MEMBER GOLD: Yes, Mr. Chairman.

CHMN STAFFORD: That has been seconded by?

MEMBER DRAGO: I did.

CHMN STAFFORD: Member Drago. Further discussion?

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment passes.

MEMBER HILL: I have a question. This is just further discussion on the whole section of 23.

I under -- I'm actually kind of questioning --

MEMBER KRYDER: Too late.

MEMBER HILL: -- the need for this section. I understand why we need this when we're working in rural areas where we're trying to lessen the impact on landowners and we're often working outside of -- there's very little that would be outside of the franchise agreement.

There's part of me that feels like the width of this right-of-way should in any section be kind of agreed upon by the City and TEP rather than us is what I'm getting at.

CHMN STAFFORD: And like I said before, I don't see a need to change it because this is us, this is standard for every right-of-way that we talk about in every CEC.

And like I said, this is necessary but not sufficient for them to put the line in the right-of-way from the City. Because the City, it's -- they need this but they also need from the City to put it in the City's easement right-of-way subject to terms of their franchise.

So I -- if you want to propose an amendment, please do, but I'm comfortable with it as it is.

MR. LUSK: Mr. Chair, if I can maybe help explain a little bit in my understanding.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: So what this is saying is that the right to build the line as given by this Committee and the ACC is no greater than 100 feet.

CHMN STAFFORD: Yes.

MS. GRABEL: No.

MR. LUSK: But it doesn't mean -- it doesn't mean that they're granted a right-of-way within the city in that way.

The corridor is the corridor, and that's a different thing as opposed to the rights that they're getting from the ACC are limited by -- the only thing that's limited by this paragraph is the rights that they're getting from the ACC, if that makes sense.

CHMN STAFFORD: Yes, because we -- the CEC, we give them a corridor which gives them the flexibility, for example, like I said before, they could be on either side of the street in that corridor, and they could -- the right-of-way -- they couldn't put -- they couldn't put dual circuits.

I mean, they could build one line as a dual circuit on one side of the street but they could not put single circuits on either side of the street if it's more than 100 feet across. That's the limitation imposed by this condition. Ms. Grabel, does --

MS. GRABEL: I agree with that interpretation, Chairman Stafford, but to Member Hill's point, I've also questioned the applicability of this condition to this case.

It originated a few cases back when corridors were proposed really wide in more rural areas,

and so there were concerns about intruding on people's property rights.

So I think in this case it does much less value. I do agree with Member Hill on that point, but I defer to the Committee on what you decide to do.

MEMBER RICHINS: Chairman.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Member Richins.

MEMBER RICHINS: I think part of it is just the way it's written is proving to be a bit confusing for some of us, when it does not authorize a right-of-way greater than 100 feet, maybe -- I think it's defining this in the negative. Maybe it needs to be flipped to defining it in the positive. It does authorize right-of-way less than 100 feet.

CHMN STAFFORD: Well, ah. It says the maximum we get from our authority is 100 feet, but my understanding is it could be narrower than that based on what the City provides; correct?

MEMBER RICHINS: Can we have the word subject to the franchise agreement in there somewhere?

CHMN STAFFORD: We could just strike the whole thing.

MEMBER RICHINS: It doesn't help, yeah.

MR. LUSK: Mr. Chairman, I would agree with

you and Mr. Richins and Member Hill that it might be appropriate to strike it if the applicant doesn't need it either.

MS. GRABEL: We actually prefer to strike it. We agree that it's confusing in this circumstance.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: Ms. Grabel is correct that is how this came to be was because of hugely wide corridors everybody was requesting, so they had the right to do whatever they wanted to out there. And this is different because it's in town.

However, this is one circumstance I believe that might be encountered, probably not but maybe, I think Ring Road is a private road; correct?

CHMN STAFFORD: Yes, that is correct.

MEMBER LITTLE: So it is not subject -- it is not subject to the franchise agreement. And all we're saying is that no matter what, you can't make it more than 100 feet wide because you didn't need more than 100 feet, period.

You can -- you know, there's other -- other places in the CEC, we have said that the applicant must abide by existing agreements, franchise agreements, et cetera, and therefore, and we're saying it can't be

greater than 100 feet.

I have no objection to changing it to a more positive statement that says the same thing, but I really think that this is -- I think it's important to include it not only for this CEC and the possibility that it might be needed in dealing with private landowners. But also that for future ones. I'd just as soon see it remain, personally.

MEMBER HILL: I agree with Member Little. I'll take back my suggestion.

CHMN STAFFORD: All right. We have -- the Condition 23 has been amended. Do I hear a motion to adopt 23 as amended?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Please check your notes but I thought that we approved the amended Condition 23.

CHMN STAFFORD: No.

MEMBER KRYDER: Is that not correct?

CHMN STAFFORD: No, we adopted an amendment to change corridor to corridors, plural. We have not moved the condition as amended yet. We were discussing whether to make further amendments to it or remove it in its entirety.

It seems like Member Hill is no longer

suggesting that we remove it or amend it. It has been amended to adopt. We need a motion to adopt it as amended.

MEMBER HILL: So moved.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Member Drago.

MEMBER DRAGO: So I may have missed it earlier in our review of the CEC. And it may be forthcoming. But what about our discussion to narrow the corridor on some of these routes? I think there was one section where they wanted to keep the 400 feet or so. Are corridors mentioned somewhere else in this CEC?

CHMN STAFFORD: Yes. The corridors' widths are described in Exhibit B in great detail. And I believe when we get to Exhibit B, I believe there was discussion about the corridor for Route D along between Ring and Lester Roads that we may need to mess with. But we will -- we'll get to that. This is just saying that the corridors are designated in Exhibit B. That's where -- we have the highly detailed maps that show because they vary in width.

MEMBER DRAGO: Thank you.

MS. DE BLASI: Chairman, if I could just

add something real quick to that because I was going to make that comment as well that Member Little made.

Not only would taking it out require -- allow them to take 400 feet of Banner's property or along that area and that 400-foot.

But I believe the applicant also talked about other private property owners, that may need that space. So I think you need to be protecting those residential areas as well with the corridor with a limit on the right-of-way.

CHMN STAFFORD: Do I have a --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Can I propose one further amendment, or is it too late?

CHMN STAFFORD: Not yet, it has not been moved as amended. It's -- the amendment to it has passed but it has not been moved as amended.

MEMBER LITTLE: Well, I propose or I move that we change the language to make it more positive, to read on line 13 remove the words "does not," change "authorize" to "authorizes." And insert the word "no" between "right-of-way" and "greater."

So that it reads, "The designation of the corridors in this certificate as shown in Exhibit B

authorizes a right-of-way no greater than 100 feet wide for the transmission line." So we're authorizing the right-of-way but it can't be bigger than 100 feet.

MEMBER KRYDER: I would second that.

CHMN STAFFORD: Is that correct on screen now, Member Little?

MEMBER LITTLE: I believe so. Yes. Thank you.

CHMN STAFFORD: Further discussion on the amendment?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment carries. Can I get a motion to adopt 23 as amended?

MEMBER HILL: So moved.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 23 as amended is adopted.

MEMBER LITTLE: Mr. Chairman, I move the adoption of Condition 24.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 24 is adopted.

Condition 25.

MEMBER GOLD: Mr. Chairman, I move Condition 25.

MR. LUSK: Mr. Chair. On -- oh, go ahead.

CHMN STAFFORD: There's a motion on the floor.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion. Mr. Lusk, you had a comment.

MR. LUSK: Did you want to make 25 conform to the paragraph above relating to the Pascua Yaqui?

MEMBER DRAGO: Yeah, thank you.

CHMN STAFFORD: An excellent suggestion. Does a member care to make the amendment?

MEMBER DRAGO: So moved.

MEMBER MERCER: Second.

CHMN STAFFORD: Is that spelled correctly, Mr. Bryner? Are we spelling it correctly, Mr. Bryner?

MR. LUSK: It is spelled correctly.

CHMN STAFFORD: All right. The amendment's been made and seconded. Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment is adopted.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I was about to bring that up with regard to the previous condition as well where we jumped right over including the Pascua Yaqui.

MEMBER DRAGO: That's a good point.

MEMBER KRYDER: Is it too late to go back and adjust Condition 24 thereby?

CHMN STAFFORD: Not if we can get a motion.

MEMBER KRYDER: Thereby, I would move.

CHMN STAFFORD: I guess you move to reconsider 24.

MEMBER KRYDER: Okay. Thank you. I move, Mr. Chairman, that we reconsider Condition 24 to include --

CHMN STAFFORD: Reconsider first. Can I get a second?

MEMBER MERCER: Second.

MEMBER KRYDER: Gotcha.

CHMN STAFFORD:

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, condition -- we are reconsidering Condition 24. Member Kryder, did you have a motion to amend?

MEMBER KRYDER: Yes, a motion to amend Condition 24 to include the language that we'd had earlier to include the Pascua Yaqui tribe.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment passes.

MEMBER MERCER: Mr. Chairman, I move Condition 24 as amended.

MEMBER LITTLE: Second.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 24 as amended is adopted.

Back to 25.

MEMBER LITTLE: Mr. Chairman, I move Condition 26.

CHMN STAFFORD: We have to finish 25. It has been amended, but I think it has to be adopted as amended.

MEMBER MERCER: Mr. Chairman, I move

Condition 25 as amended.

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 25 as amended is adopted.

MR. LUSK: Mr. Chair.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: I notice we've been going for quite some time. I don't know if you want to check with Jennifer.

CHMN STAFFORD: Yeah, how long have we been going? Because we didn't start until closer to 9:30. 9:45, even, was it?

THE COURT REPORTER: I have an hour and 31 minutes.

CHMN STAFFORD: All right. Well, then it is time for a break, then. We stand in recess.

(Recess from 11:00 a.m. to 11:20 a.m.)

CHMN STAFFORD: Let's go back on the record.

I believe we had just adopted Condition 25 as amended. Moving on to Condition 26.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move adoption of Condition 26 as printed.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

(No response.)

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 26 is adopted.

Number 27.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move approval -- or adoption of Condition 27 as printed.

MEMBER MERCER: Second.

CHMN STAFFORD: Do we also wish to add the Pascua Yaqui Tribe to Condition 27?

MEMBER KRYDER: By an amendment in a moment, Mr. Chairman.

CHMN STAFFORD: It's been moved and

seconded. We're ready for the amendment.

MEMBER KRYDER: Okay.

MEMBER GOLD: I move the amendment that we add Pascua Yaqui.

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

MEMBER GOLD: Can we move that they all add Pascua Yaqui when you see south Tucson Pima?

CHMN STAFFORD: We're almost done with the conditions so we --

MEMBER GOLD: Oh.

CHMN STAFFORD: We'd have to move them all to amend them all.

MEMBER GOLD: Okay.

CHMN STAFFORD: So it's been -- okay. We have the motion to amend. Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment is adopted.

MEMBER HILL: Move approval of Section 28 as amended.

CHMN STAFFORD: 27 as amended?

MEMBER HILL: 27 as amended. Apologies.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 27 as amended is adopted.

Condition 28.

MEMBER LITTLE: Mr. Chairman, I move Condition 28.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 28 is adopted.

On to the Findings of Fact and Conclusions of Law.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move approval of findings of fact and conditions of law number 1 as printed.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Finding of Fact and Conclusion of Law Number 1 is adopted.

Number 2.

MEMBER LITTLE: Mr. Chairman, I move Finding of Fact Number 2.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusion of Law Number 2 is adopted.

Number 3.

MEMBER MERCER: Mr. Chairman, I move

condition of -- whatever it is, Finding of Fact and Conclusion of Law Number 3.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

MR. DEMPSEY: May we provide a comment for the record?

CHMN STAFFORD: Sure, Mr. Dempsey.

MR. DEMPSEY: I just want it to be noted that we provided evidence that underground lines are safer and more reliable than aboveground lines. Multiple studies are in the record.

We also provided testimony that following the law is a prudent operational need. I think that is also shown by the costs that TEP has already incurred and says it will incur by not following the law. And I just want to make sure that's in the record.

CHMN STAFFORD: Thank you.

Finding of Fact and Conclusion of Law Number 3 has been -- has it been moved and seconded?

It has?

Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law Number 3 is adopted.

Number 4.

MEMBER GOLD: I move Number 4.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Would you note for the record that I abstained in Number 3, please.

CHMN STAFFORD: It's in the transcript now, Member Little. Thank you.

MEMBER LITTLE: Thank you.

MEMBER GOLD: I move Number 4, Mr. Chairman.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Findings of Fact and Conclusions of Law Number 4 is adopted.

Number 5.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move acceptance of finding of fact and condition of law number 5 as printed.

MEMBER GOLD: Second.

MR. LUSK: Mr. Chair.

CHMN STAFFORD: Further discussion?

MR. LUSK: Mr. Chair.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: I'm actually wondering why this isn't a condition.

CHMN STAFFORD: This is not. This is a Finding of Fact and Conclusion of Law, not a condition.

MR. LUSK: I understand. I'm inquiring as to why it's not a condition?

MS. GRABEL: It is a condition.

CHMN STAFFORD: It is reflected in the conditions that they will underground the things -- it's that they give all the attachees -- attachers -- I forget the term exactly -- the six-month notice before they start construction so they can get their -- once they get their -- what's it six months of something they have to give them adequate notice to plan to relocate their facilities from the retired 46kV lines.

MR. LUSK: So that's a different thing?

CHMN STAFFORD: Yes.

MR. LUSK: And this is related to the distribution system.

CHMN STAFFORD: And that's also in the conditions that they're going to do it. It's in a prior --

MR. LUSK: Oh, I missed it. I apologize. Thank you.

CHMN STAFFORD: Okay.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Along the same lines, because it is a condition I'm wondering why we need to put it here. We're recognizing our own condition?

CHMN STAFFORD: Well, there's a little more information here, but it is -- there's a condition, and then this is a Finding of Fact and Conclusion of Law. Pardon.

MEMBER RICHINS: Doesn't that support the condition -- I think it's Condition 15?

CHMN STAFFORD: Right.

MEMBER RICHINS: Isn't that the idea is that the finding of fact supports the reason for Condition 15?

CHMN STAFFORD: Exactly.

MEMBER LITTLE: Okay. All right.

CHMN STAFFORD: Well said, Member Richins.

MR. DEMPSEY: May I make a comment?

CHMN STAFFORD: Yes, Mr. Dempsey.

MR. DEMPSEY: So the problem that I have with this -- or Underground Arizona has with this is the last, I guess, sentence. It says that, "The project will result in a net reduction of 32 miles of overhead infrastructure."

That apparently -- that calculation apparently includes communication infrastructure, which they have absolutely no control over, and I'm not comfortable including that number because they don't have -- we have no way -- they haven't established that they can make that happen.

CHMN STAFFORD: Ms. Grabel, would you care to respond?

MS. GRABEL: Certainly. Thank you, Mr. Chairman.

So the communication attachments will not be able to be attached without our permission to the new 138kV poles, and it's TEP's policy, as I understand it, not to allow such attachment to high-voltage transmission facilities. And so -- and that is in the record from our witnesses.

And there's also plenty of conversation in

the record about the fact that the communication attachments will either be relocated to a different place by the providers or buried belowground in joint consultation with TEP.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: I think the point is well taken.

We have no way of knowing how the communication companies will deal with that. It gets very unlikely that they will put up poles of their own with their communication on lines on whatever they call it.

However, it's possible that they could.

MS. GRABEL: Mr. Chairman, to address that concern you could amend line 15 as I'm seeing it and say "a net reduction of up to 32 miles of overhead infrastructure" to account for any potential communications attachments that we have no control over.

MR. DEMPSEY: You could also amend it to say "may" instead of "will."

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: All good suggestions.

Is that Member Somers?

MEMBER KRYDER: Kryder.

CHMN STAFFORD: Kryder. Okay.

MEMBER KRYDER: This line 15 appears to me to be a statement of fact, and that says the project will result in the net reduction of 32 miles of blah, blah, blah.

And as Ms. Grabel mentioned just a moment ago, because TEP controls access to their 135kV lines and because we have testimony that they do not allow any communication lines or distribution lines on them this will be reduced. It speaks nothing about what Cox TV may want to do or fill in the blank, whoever else is a current attacher.

This says that it "will be reduced by." It doesn't have anything to do with what these attachers might do, and therefore it is a valid statement of fact as written.

MEMBER LITTLE: No, it's not.

CHMN STAFFORD: Member Little, did you have a comment?

MEMBER LITTLE: I disagree.

CHMN STAFFORD: Ms. Grabel, does -- the 32 miles, does that include the other infrastructure, or is that only TEP's infrastructure?

MS. GRABEL: That does include other infrastructure.

I don't believe the changing "will" to "may" would be right because TEP is committed to bury its distribution lines. It's now a condition of this CEC.

And we're also committed to retiring our existing 46kV lines that will no longer be necessary, which is also, I believe, a condition of this CEC.

So I think if we say "the project will result in a net reduction of 'up' to 32 miles" that would assume that some communication attachments may or may not be relocated but certainly TEP's will.

CHMN STAFFORD: Right.

MR. LUSK: Mr. Chair.

CHMN STAFFORD: I guess the issue is, then, whatever the miles of the attachers' infrastructure I guess would they be able to put up a pole in the same right-of-way as the power line?

MS. GRABEL: I assume, Mr. Chairman, that they'd need a permit from the City to do so.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: Well, Mr. Chair, I was actually going to ask for some clarification on that because, as we saw during the tour, there are multiple poles in the right-of-way that are what are called topped poles where TEP had poles in the right-of-way. They had attachers.

And then through their agreements with

their attachers they removed their infrastructure from the poles but then left the poles. So that's what I think might be the concern for the community.

CHMN STAFFORD: Right. But I think in this case they're going to be removing the poles. All the 46kV poles would be removed that -- especially wherever the new 138kV line would go.

MR. LUSK: Well, I don't know that we're talking about 46kV right now. I think we're talking about distribution poles.

CHMN STAFFORD: Okay. You're talking about the 4kV or will it be 14kV poles?

MR. LUSK: Correct.

CHMN STAFFORD: Okay. They say up to 30 miles because that would be the best-case scenario if everybody -- all the attachers underground at that point.

MR. LUSK: Might I suggest that it focus on TEP infrastructure only? That way it can actually be a finding of fact.

MEMBER RICHINS: Chairman, I concur with -- I was going to make the same amendment that perhaps we just remove the reference on line 10 to that say "and communication attachments" and just use focus on TEP's. And then we can strike everything on line 13, 14, 15, and 16.

So it should read, "As part of the project as conditioned by the CEC, TEP will relocate existing overhead distribution lines belowground. Additionally, the project will enable retirement of up to eight existing 46kV substations and approximately 19 miles of existing 46kV lines in the next ten years."

Full stop.

CHMN STAFFORD: So just strike the remainder of the paragraph?

MEMBER RICHINS: We really should be silent on other people's lines such as communication. They're not part of this proceeding, and it's not necessary to include. Thank you.

MEMBER KRYDER: Absolutely.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Member Drago.

MEMBER DRAGO: So should there be some words in here about that this is regardless of the route that is -- the alternative routes that we've put in the CEC?

So this includes all 22 routes?

MS. GRABEL: No.

MEMBER DRAGO: I don't understand what it's including outside of what we chose for routes.

MR. BRYNER: So what this is referring to

is really a commitment by TEP irrespective of the route as you pointed out.

So we're upgrading our 46kV system to the 138kV system. So as a result of that we will no longer have the need for those 46kV substations, no longer have the need for those 46kV lines. And then the distribution lines will be on top of that. But the 46kV system is independent of whatever route is selected.

MEMBER DRAGO: Then my follow-up is is this condition or the Finding of Fact and Conclusion of Law in here to give confidence to the public?

Because otherwise I don't know why it's here altogether.

MS. GRABEL: TEP would have no objection to removing it. We left this in simply because we thought it would bolster the ultimate finding that you make, and it's actually a positive to what this project is doing to the community.

But because that's already, like, reflected in the conditions and it seems to be causing angst we don't object to striking it altogether.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: I have no objection to leaving the finding in here as without any mention of

communication attachments and without 13, 14, 15, and 16, those lines included because if it -- the fact that knowing that the distribution -- the wooden pole line that is existing would be removed before the new pole line is put into place or subsequent to it. At some point it will go away did have some bearing on our choice of routes. So --

CHMN STAFFORD: I tend to agree. I think we can leave number 5 but just strike lines 13 through 16. And then it should say "certificate" and not "CEC" because I thought we made the point to defer to it as a certificate throughout the entire certificate and not use the term "CEC" and "certificate" because I believe at the beginning we say "certificate" and then just continue "certificate" throughout.

MEMBER LITTLE: And then also remove the words "and communication attachments."

If we want to say belowground, we need to say -- we need to remove "and communication attachments" in line 10.

CHMN STAFFORD: Because they may or may not go belowground; correct?

MEMBER LITTLE: Right.

CHMN STAFFORD: Right.

MEMBER LITTLE: Well, we don't know that.

CHMN STAFFORD: Well, that's why I said they may or may not.

MEMBER LITTLE: Right.

CHMN STAFFORD: Right.

Let's focus on what TEP's going to do with its own facilities.

MEMBER HILL: I move approval of --

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: I have no objection leaving it in.

But I think just reading it as a layman, I have no idea within the Midtown project if my neighborhood is going to recognize the undergrounding of these distribution poles.

So, to me, is there an exhibit we can refer to that shows all of Midtown and what streets regardless of the preferred route or whatever alternative route they choose that shows that?

MEMBER KRYDER: Member Drago or Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Member Drago, I think the word "Project" there in line 9 may include what you're talking about. If you go back and look at the definition

of the word capital P "Project," I think that might clarify what I understand your question to be.

MEMBER DRAGO: Can we go back and look at that?

MS. GRABEL: Actually, Member Drago, we think you're right.

And perhaps what you could revise this to say is, "As part of the project as conditioned by the CEC, TEP will relocate existing overhead distribution lines belowground along the route selected" or something along those lines so that people know if that's the route selected, those are the lines that are going to be buried.

MEMBER LITTLE: Yes.

MEMBER DRAGO: Thank you for that, Ms. Grabel.

But the reason I brought it up is I was thinking regardless of the route chosen, there are going to be neighborhoods that will benefit undergrounding outside of that preferred route.

CHMN STAFFORD: Right. Because the 46kV system is going to be retired over the next ten years.

MS. GRABEL: That's the subsequent sentence, though. So the first sentence only refers to our commitment to bury the lines along the route on which

we're constructing the 138kV. And then the second sentence says, "We're going to retire other parts of our system." And that could be anywhere. I mean, not anywhere, but --

CHMN STAFFORD: Right. Because we're not calling out the eight substations in the order, but they are in the record because there's an exhibit I specifically recall that had the little blue teardrops showing all the substations that are going to get 86ed when the 46kV system goes away.

MEMBER DRAGO: Thank you for that, Ms. Grabel.

So back to Member Kryder's point. If I look at the definition of Project, would I be able to articulate whether my neighborhood is going to benefit from undergrounding distribution?

So we can look at that?

MS. GRABEL: It's probably not going to because it just generically refers to the Midtown Reliability Project Project.

MEMBER DRAGO: I'm just asking Member Kryder to explain what he meant.

MS. GRABEL: Okay.

MEMBER KRYDER: I don't have all of that. But buried early in the application the project is

defined, and I seem to recall, and I don't have the language in front of me, that in that definition of the project it calls out the neighborhoods and a variety of things, so that was the basis of my presumption, and it was a presumption not based on a recent reading.

So I'll stand corrected if we can look at it and see that it was wrong or I'll take Ms. Grabel's recommendation for the modification if that would work for you, Mr. Drago.

MEMBER DRAGO: Yeah. Member Kryder, I'm not suggesting that you're wrong.

I just want to have the public read this and understand whether quote/unquote my neighborhood will benefit from undergrounding regardless of the preferred route or alternative route that are optioned in this CEC.

CHMN STAFFORD: And, Member Drago, I think -- I don't think the public's going to be able to look at the certificate and tell what's going to be -- if they're going to be -- if they're going to benefit from the undergrounding of the distribution system or the removal of the 46kV system.

I think -- I think maybe the best way for the public to become aware of those benefits is that TEP will tell them as they're doing it as part of their when they're doing -- when they're building out this project

and removing the 46kV or they're putting the 138kV line and undergrounding the distribution that's there.

They can let the neighborhoods know that it's happening ahead of time and that they're going to be -- see what they'll be seeing. And, I guess, the ones that are the street over, they'll see the new power lines coming in, but the distribution lines, if they're next to a 46kV, they'll see that go away.

MR. LUSK: Mr. Chair, if I may.

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: I'm just trying to clarify Member Drago's question.

I think what it might be a clarification is that the distribution lines are being undergrounded within the corridor that's granted by this Committee.

The 46kV lines are not being undergrounded but being removed in other areas of the City. And I think that -- is what you're looking for is what those other areas of the City are?

MEMBER DRAGO: I want to be able to read this and the laymen, the public, understand, Oh, will I benefit from undergrounding or removal?

MR. LUSK: Yeah. So I think maybe it might be helpful to add to that first sentence overhead distribution lines and whether you removed communication

attachments or not belowground along the route chosen or something of that nature, if that make sense.

CHMN STAFFORD: I believe Ms. Hill may have a suggestion or Ms. Grabel.

MS. GRABEL: Mr. Bryner.

CHMN STAFFORD: Mr. Bryner. We're going down the line.

MR. BRYNER: We'll see if I get it right.

So, yes, I like what Mr. Lusk was saying.

And I do appreciate your comment, Member Drago, because I think that reading this condition you could --

CHMN STAFFORD: It's Findings of Fact and Conclusions of Law.

MR. BRYNER: Sorry.

CHMN STAFFORD: It's not a condition. It's the Findings of Fact and Conclusions of Law.

MR. BRYNER: The Finding of Fact and Conclusion of Law. As you read that, you could see that, hey, TEP is putting all existing overhead distribution lines underground. And that's not the intention.

The intention, as we've tried to communicate throughout this -- the course of the past couple weeks, is that the distribution lines along the route, whatever route is ultimately selected and built,

those lines would be placed underground.

And the 46kV lines, those are irrespective of the route selected, but the distribution lines those are dependent on whichever route is selected.

And we could take care of communicating that to the public in a couple ways. I think clarifying right in here is the start.

I think another thing that we could do is we do have -- we will continue to maintain our project web page. We could clearly post that on there so that folks could take a look at and see, hey, where exactly are these distribution lines being placed underground.

Another thought is we -- I hate to muddy the waters with our CEC with our Exhibit B map, but we add it on that.

MEMBER GOLD: Mr. Chairman.

MEMBER LITTLE: Mr. Chairman.

MEMBER DRAGO: Thank you very much.

May I, Chairman?

CHMN STAFFORD: Yeah.

MEMBER DRAGO: Thank you very much. I think I like your idea. But then it begs the question if we should include the 46kV.

CHMN STAFFORD: Member Little, you had a question or a comment.

MEMBER LITTLE: Yes. I'm thinking in terms of how many people are going to read the CEC, how many members of the public. Probably five. And I'm thinking that if people are curious about whether their -- the pole in front of their house is going to go away they're going to call the company or go on the website first. They're not going to dig around in the docket and try to find a copy of the CEC and read it.

If it really is causing this kind of a problem, perhaps we should just eliminate the whole -- the whole finding.

MEMBER DRAGO: Thank you.

CHMN STAFFORD: I have another suggestion.

If we look back to Condition 12 at the last sentence of that condition, "The applicant shall make every reasonable effort to communicate the decision either approving or disapproving the certificate in digital media." If we could add additional language that says they will -- "applicant will maintain the project website and update the public on the status of removal of the 46kV system and the undergrounding of distribution lines along the route."

MEMBER DRAGO: Member -- or, Chairman, sorry.

I like your idea a lot. And it's no

different than me reading the ADOT subscription to see if I should avoid a highway. So if they could put something on the website that shows next month we're going to be burying these distribution lines and removing these 46kV lines, I think that's an excellent suggestion.

MR. LUSK: And, Mr. Chair, may I offer maybe a friendly amendment to that, just add status and location.

CHMN STAFFORD: Excellent. So --

MEMBER GOLD: Mr. Chairman, before we move on.

CHMN STAFFORD: Well, I was hoping to get a motion to reconsider Condition 12 and make the amendment to that to require them to maintain what I just said of how they could update the public through the project website and what the status of the progress is.

MEMBER GOLD: Mine is going to be short, but it may affect both.

There's no mention of 4 or 14kV lines, which are distribution lines.

So are you going to remove them, leave them as they are, ignore them?

MR. BRYNER: So for our purposes, I would just classify 4 and 14kV same thing. They're distribution lines.

And as part of this project, the larger project, we will be upgrading the 4kV lines to 14kV. That's going to take a while. And while TEP will try to keep everyone informed of that, I guess I would prefer that didn't become a condition of the CEC surface our progress on that goes.

MEMBER GOLD: Okay. But you're not limiting yourself to just 46kV lines. It says of existing 46kV lines. Everything says existing 46kV lines. There's no mention of other distribution lines. Just a point of questioning.

MR. LUSK: Member Gold, I think if you refer to the sentence just before that, it talks about overhead distribution lines.

MEMBER GOLD: Where am I looking?

MR. LUSK: At line 1.

CHMN STAFFORD: Findings of Fact and Conclusions of Law Number 5.

I think that sentence should probably be changed to at least to be TEP relocate existing overhead distribution lines belowground along the selected route.

MEMBER GOLD: Then it's there. Thank you.

In that case let's go back to that motion.

CHMN STAFFORD: Okay. So we're -- so we're not going to -- okay. We're going back to the Findings

of Fact and Conclusion of Law Number 5.

Has Findings of Fact and Conclusion of Law Number 5 been moved?

MEMBER KRYDER: Yes. It is.

CHMN STAFFORD: Okay.

MR. KRYDER: We're in the discussion phase of it.

CHMN STAFFORD: Okay. If I can, can I get a motion to amend to what we've just talked about?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: You gave a very well-articulated modification to lines 9 and 10 in finding of fact and conditions of law number 5, and I would move to include that language following belowground in line 10. Could you give it to us again?

CHMN STAFFORD: All right. Let me -- starting on line 9, the CEC should be certificate. And then it will read, "TEP will relocate existing overhead distribution lines belowground," strike that, "along the selected route."

MEMBER KRYDER: Thank you very much. I move that modification to conditions number 5.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

MEMBER MERCER: Mr. Chairman.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes. I have Member Drago and Member Mercer.

MEMBER MERCER: My question is is it "route" or "routes"?

CHMN STAFFORD: It'll be "route" because they will not -- although we've approved multiple routes, they will build only one route.

And that's -- but then they're not going to underground the distribution along all the routes. It will only be the one route that they ultimately build. So I think that should remain singular.

MEMBER MERCER: Thank you.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes, Member Drago.

MEMBER DRAGO: Yet another suggestion beyond Member Kryder's request, and that was about the website.

CHMN STAFFORD: Right.

MEMBER DRAGO: Are they going to modify --

CHMN STAFFORD: That would be -- did we want to -- because I had suggested we do it as a condition, but it would make more sense to do it as a condition as a finding of fact. But I think we should

probably strike the rest of this paragraph lines --

MEMBER HILL: 13 through --

CHMN STAFFORD: Lines 13 through 16.

MEMBER LITTLE: Yep.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: I agree with that and thereby modify -- ask to modify my motion to include that.

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Condition Number 5 is amended.

MEMBER LITTLE: Mr. Chairman, I move finding of fact and condition of law number 5 as amended.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusion of Law Number 5 as amended is adopted.

Now, do we want to -- do we want to go back and talk about communicating the status of the project on the project website or --

MEMBER DRAGO: I would like that, Mr. Chairman. Len Drago.

MEMBER HILL: Is it a reconsideration?

CHMN STAFFORD: Huh?

MEMBER HILL: Is it a reconsideration?

CHMN STAFFORD: Right. We'd have -- someone would have to move to reconsider -- let me scroll back up here. It is --

MEMBER KRYDER: Condition 16.

CHMN STAFFORD: It is Condition Number 12.

MEMBER KRYDER: 12.

Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move that we reconsider Condition 12.

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: All right. We are reconsidering Condition 12.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Could I ask if attorney Grabel or someone has language that we could properly insert here?

MS. GRABEL: Certainly. I don't think you should amend what's currently there. I think it would make it wordy. So perhaps insert a new line that says, "The applicant shall also inform" -- how would you want to say this -- "shall also keep" -- hold on. Let me think about it.

CHMN STAFFORD: It would be a new sentence.

MS. GRABEL: What's that?

CHMN STAFFORD: It would be a new sentence.

MS. GRABEL: Correct.

CHMN STAFFORD: Because you'd have the sentence, "The applicant shall make every reasonable effort to communicate the decision either approving or disapproving the certificate in digital media."

Okay. Sorry. Sorry.

And then just new paragraph. And then start there.

MS. GRABEL: The applicant shall also communicate through its project website the status and location of the route ultimately constructed and the removal of the existing utility infrastructure along that route perhaps with the removal and undergrounding.

MEMBER DRAGO: Thank you.

CHMN STAFFORD: And project should be capitalized.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I move the additional information in Condition 12 as Attorney Grabel just proposed.

MEMBER DRAGO: Second.

CHMN STAFFORD: To amend Condition 12 to reflect the language on the screen.

MEMBER KRYDER: To amend the language of Condition 12.

Thank you very much, Mr. Chairman.

CHMN STAFFORD: So that the amendment would read -- so the motion is to amend Condition 12 to add a new sentence that reads, "The applicant shall also communicate through its project website the status and

location of the route ultimately constructed and the removal and undergrounding of the existing utility infrastructure along that route."

MEMBER KRYDER: Thank you very much. Well done.

CHMN STAFFORD: That has been moved and seconded?

MEMBER DRAGO: Yeah, second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Let's move to adopt Condition 12 as amended.

MEMBER HILL: So moved.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Condition 12 as amended, again, is adopted.

And we're back to Finding of Fact and

Conclusion of Law Number 6.

Has it been moved?

I don't believe.

MEMBER MERCER: Mr. Chairman, I move Findings of Fact and Conclusion of Law Number 6.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

I think I might have a suggestion here. Would it be better to replace on line 14 "without the need" and replace it with "and avoid."

MEMBER KRYDER: I'm sorry, say that again.

CHMN STAFFORD: I said replace "without the need for" so -- with "and avoid."

MEMBER HILL: Substantial investment --

MS. GRABEL: That works for us.

MR. LUSK: Mr. Chair.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Would you read Number 6 as your proposed amendment?

CHMN STAFFORD: Yes. "The evidence indicated that the project is required to be in service by 2027 to maintain safe and reliable service and to avoid additional substantial investment in the existing 46kV system serving the area."

MEMBER KRYDER: Thank you very much.

I move that modification to Number 6 conditions -- finding of fact and conditions of law.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

MR. LUSK: Chairman.

MEMBER RICHINS: Chairman, I have one suggestion here. The first sentence, "Evidence indicated the project is required to be in service," it doesn't say required by whom. That's a preference of the utility to be in service by then.

Obviously if you guys slipped to 2028, you're not going to get fined. You know, it's a preference that they are in service by then. It's not a requirement by somebody, nor by us.

And so I stumble on that word a bit. I think it would be more appropriate to say, "The project is preferred to be in service by 2027."

CHMN STAFFORD: I might have a suggestion --

MEMBER LITTLE: Or needed.

CHMN STAFFORD: -- that it would be -- "The evidence indicated that the applicant needs the project to be in service by 2027 to maintain safe and reliable service in order to avoid additional substantial

investment in the existing 46kV system serving the area."

Because that's really what the fact is is that they have a choice to get this done by that time or they got to spend more money to prop up the 46kV system they're trying to get rid of.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Yes, Member Gold.

MEMBER GOLD: Who is requiring that this project be done?

CHMN STAFFORD: Well, it's --

MEMBER RICHINS: Nobody.

CHMN STAFFORD: The utility needs the line to maintain reliability.

MEMBER GOLD: So the utility says the project must be done?

CHMN STAFFORD: That's why we say "need" instead of "require."

MEMBER GOLD: "Needs, require." It's semantics, but okay.

CHMN STAFFORD: I think "require" intimates that it's something is being -- the utility's being told they need to do something. They've come to us and said, We need to do this, we need this to happen to maintain reliability, so I think it's just a question of the verbiage to make it so it's not -- it's required by

physics and reality. It's not an external requirement from some governing agency or authority.

MEMBER GOLD: So the utility indicated that the project is required to be in service to maintain safety.

CHMN STAFFORD: Right.

MEMBER GOLD: Okay. However you want to word it.

CHMN STAFFORD: And so I would say --

MEMBER RICHINS: Well, there's a motion on the table that you need to deal with before you can add or the person who made the motion needs to add the additional language to his motion, and the seconder needs to second that.

CHMN STAFFORD: Right.

So who made the motion?

MEMBER KRYDER: I did.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: Mr. Chairman, I acknowledge the additional language and ask that it be inserted in the amendment, and knowing you, you've captured that, and so I would ask you read to the Committee the revised motion before us.

CHMN STAFFORD: Does that work, Member Richins?

MEMBER RICHINS: Yeah.

CHMN STAFFORD: Amend the amendment. So it would be "The evidence indicated that the applicant needs the project" -- delete "is required" -- "to be in service by 2027 to maintain safe and reliable service in order to avoid additional substantial investment in the existing 46kV system serving the area."

MR. RICHINS: That will work.

MR. LUSK: Mr. Chair, may I.

CHMN STAFFORD: Hold on.

MR. LUSK: Sure. Go ahead.

CHMN STAFFORD: So that's the amendment that has been moved and seconded.

Further discussion?

Mr. Lusk?

MR. LUSK: Yes. I just real quickly because this is a finding of fact the word "substantial" should probably have some meaning.

Can we just refer to the amounts that are in the record?

CHMN STAFFORD: No. I prefer not to put dollar amounts. I think the record speaks for itself.

If we -- I think it's enough to where it was in the tens of millions of dollars over the time frame that we're looking at. I think substantial is

enough.

I think we made a point not to include specific numbers for other parts of the CEC. I think --

MS. GRABEL: TEP intentionally did not refer to its own evidence and tried to vague it out in response to Committee's preference yesterday with -- about these findings of fact.

CHMN STAFFORD: And that would be my preference for this one as well.

Members, do you have thoughts on that?

MEMBER HILL: Mr. Chair, I think that the amount of investment is different if it slips to 2028 versus 2030.

And so what I'm struggling with is it's definitely additional investment, but whether it's substantial is I think the question that people are asking.

MS. GRABEL: We're fine taking out the word substantial. I think 10 million is "substantial", and that gets you to 2030.

MEMBER HILL: I'm not disagreeing with you. And I think it was the 2030 number.

MS. GRABEL: It was.

MEMBER HILL: But the 2028 number might be something different, so that's just what I wasn't sure

about.

MEMBER KRYDER: I believe it's 2027. Or am I reading it wrong?

MR. LUSK: Member Kryder, I believe what Ms. Grabel is referring to is that if it goes beyond 2027 to 2028, there's an additional amount required. Yes.

MEMBER KRYDER: Thank you for the clarification.

MR. LUSK: Of course.

CHMN STAFFORD: Right. My recollection of the testimony would be 10 million if they have to go past '27 and, like, 50 million if it goes out to 2030.

MS. GRABEL: It's actually 10 million to 2030 and 50 million after that.

CHMN STAFFORD: Okay.

MS. GRABEL: Member Hill had it right.

So we're comfortable removing the word "substantial."

MR. LUSK: Thank you, Ms. Grabel.

CHMN STAFFORD: Member Kryder, it was your motion. Do you want to revise your motion to reflect that?

MEMBER KRYDER: Thank you very much, Mr. Chairman.

Please consider the revised motion that's

on the floor to reflect the new language that the Chairman just spoke.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusion of Law Number 6 as amended is adopted.

Number 7.

MEMBER MERCER: Mr. Chairman, I move finding of fact, conclusion of law number 7.

MEMBER RICHINS: Chairman, I have a little struggle with this one.

MEMBER HILL: I'll second that just so we can proceed with discussion.

CHMN STAFFORD: All right. Now we'll discuss it. Thank you.

MEMBER RICHINS: I have a little struggle. I mean, substations aren't in our purview.

Vine being located where it is is an important component of this project. But we don't cover

substations at all. I'm a little reluctant with the word "dictated" in there.

I don't know that we need any reference to substations other -- because the City has to approve that substation. We are not approving that substation location. We cannot help you with the location of that substation other than we can route through it.

And so I just -- I don't know that this is really necessary.

MEMBER HILL: Mr. Chair.

CHMN STAFFORD: Member Hill.

MEMBER HILL: I don't think that the saturation study dictated the location of Vine Substation, so the language is a little wonky there.

But I do think it's important that we indicate the importance -- that we have a finding of the importance of the Vine Substation and its location and frankly the necessity of the Vine Station for any of these routes to work.

So I agree with my colleague that "dictate" is definitely not the right word. But I do think we can word this in a way that we do have a finding of fact of the siting of the Vine Substation is necessary for any of these routes to work and for the CEC to be utilized by TEP.

CHMN STAFFORD: I would agree with that. What's the better word --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: -- than dictated?

MS. GRABEL: Perhaps supported.

MEMBER HILL: I bet Member Little has an idea.

CHMN STAFFORD: Member Little, do you have a suggestion? If you don't, I think Ms. Grabel does.

MEMBER LITTLE: Well, I defer to Ms. Grabel, but I would also like to suggest that we put the proposed location of the Vine Substation because location makes it sound like it's there.

CHMN STAFFORD: Exactly.

MEMBER LITTLE: And it isn't there.

CHMN STAFFORD: Good point, Member Little.

MEMBER KRYDER: Great point.

MEMBER LITTLE: But for the word replacing "dictated," Ms. Grabel.

MS. GRABEL: Perhaps "supported." "Supported" by a saturation study.

MEMBER LITTLE: "Determined."

MS. GRABEL: "Determine" also works.

CHMN STAFFORD: Determined.

MS. GRABEL: Or you could say "TEP

determined the location of the Vine Substation by the results of a saturation study, available land, and its immediately adjacent proximity," something like that.

MEMBER RICHINS: That's more factual.

MEMBER LITTLE: That helps.

MS. GRABEL: Okay.

CHMN STAFFORD: So --

MEMBER LITTLE: I make a motion that we change the language of Number 7 to read "TEP determined" --

CHMN STAFFORD: Or "the applicant."

MEMBER LITTLE: Or "The applicant determined the proposed location of the Vine Substation through the use of a saturation study" blah, blah, blah.

CHMN STAFFORD: Do you want to say "proposed location" or "location of the proposed Vine Substation"?

MEMBER LITTLE: Well, I think -- I think they're proposing a location. They say it's needed, so I don't think it matters.

CHMN STAFFORD: Okay. I just wanted to make sure that it wouldn't be more or less clear one of those ways.

So can we get a motion to amend?

MEMBER HILL: Motion to approve as amended.

MS. GRABEL: Well, actually --

MEMBER HILL: Oh, wait --

MS. GRABEL: Sorry.

MEMBER LITTLE: I proposed it as an amendment.

MS. GRABEL: As you read the entire -- I'm sorry to interrupt you, but as you read the entire condition now, it's a little -- it doesn't make a lot of sense once you get past the saturation study. So perhaps say, "The applicant determined the proposed location of the Vine Substation through the use of a saturation study and the location of available land and its immediate proximity to" or something to effect.

MEMBER HILL: And identified available land?

MEMBER LITTLE: Available --

CHMN STAFFORD: Or maybe if we went --

MEMBER LITTLE: Well, you did --

CHMN STAFFORD: Maybe if we went back to the original language and said, "The location of the proposed Vine Substation was determined by the applicant through a saturation study," and you need another verb for available land. The availability of -- I don't know.

MS. GRABEL: Well, how about this: "The

applicant determined the proposed location of the Vine Substation through the use of a saturation study. The actual site was identified given the available land and its immediate adjacent proximity to two existing substations."

MEMBER GOLD: Perfect.

MEMBER LITTLE: I'm fine with that, and I modify my proposed amendment to reflect that.

MEMBER HILL: Do we have a second for Member Little's amendment?

MEMBER KRYDER: Second.

CHMN STAFFORD: All right. And then, Member Little, if you could read the -- let's let Mr. Ancharski get through the drafting of it here.

MS. GRABEL: Based on available land and its immediate -- there you go.

CHMN STAFFORD: And you don't need a comma after land.

MS. GRABEL: You don't.

MEMBER LITTLE: Well, let me ask the applicant this: Did you determine the location through the use of a saturation study or did you determine the need through the use of a saturation study?

MR. BRYNER: It was both.

MEMBER LITTLE: Yeah.

MR. BRYNER: So it identified the load center through the saturation study, and it identified the need for a substation in that area.

MEMBER LITTLE: So you could say, "The applicant determined the proposed location of the" --

MEMBER HILL: I would lead with "the need." "The applicant determined" --

MEMBER LITTLE: -- "the need and the proposed location."

MEMBER HILL: "And the proposed location."

MEMBER LITTLE: "The need for and proposed location of."

CHMN STAFFORD: There you go.

MEMBER LITTLE: Okay. So my proposed amendment is that Finding of Fact Number 7 reads, "The applicant determined the need for and proposed location of the Vine Substation through the use of a saturation study. The actual site was selected based on available land and its immediate adjacent proximity to" blah, blah, blah.

CHMN STAFFORD: I like it.

MEMBER HILL: Second.

CHMN STAFFORD: It's been moved. The amendment has been moved and seconded except for the "blah, blah, blah."

All right. Further discussion?

MEMBER DRAGO: Yeah. Mr. Chairman, should it be immediate and its or --

MS. GRABEL: Yes.

MEMBER DRAGO: Yeah.

CHMN STAFFORD: Yes, exactly. The adjective, not the adverb.

Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Member Little's amendment to Finding of Fact and Conclusion of Law Number 7 is adopted.

Can I get a motion to adopt the Finding of Fact and Conclusion of Law as amended?

MEMBER GOLD: So moved.

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusion of Law Number 7 as amended is adopted.

Number 8.

MEMBER RICHINS: Chairman --

MEMBER LITTLE: Mr. Chairman.

MEMBER RICHINS: -- I move to strike 8 altogether.

MEMBER LITTLE: Second.

CHMN STAFFORD: Let's -- okay. I guess we can just to move to strike instead of moving to consider it.

So, yeah, it's been seconded. The motion before us is to strike number 8.

Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the proposed Findings of Fact and Conclusion Of Law 8 is stricken.

All right. Now I guess we're going to do 8 again because the numbers changed.

MEMBER RICHINS: Yeah. We actually put -- should we keep a placeholder there for 8 --

CHMN STAFFORD: I think --

MEMBER RICHINS: -- or just change it like this? Let it change.

CHMN STAFFORD: I guess we'll let it --

MEMBER RICHINS: Yeah, just leave it like that for now.

CHMN STAFFORD: I know that the original one that it's been -- the original one has been stricken.

Yeah, let's leave it blank, and then we'll go through and vote them as this. And then a conforming a change will be to renumber the Findings of Fact and Conclusion of Law.

That way we -- it's the record's more clear. Otherwise, it's going to look like we voted on 8 twice, and then it's going to be all --

Okay. All right. So the original 8 is stricken.

Moving on to Number 9.

MEMBER RICHINS: Chairman, I would prefer to strike 9 as well.

I don't believe this was part of the language negotiation. I think that that begins on 10.

Can you confirm that, Ms. Grabel?

MS. GRABEL: That is true, Member Richins.

The reason I kept it in there, and I actually deleted a lot of what was in there previously is because it explains why you're making a finding. It's pursuant to TEP's request.

CHMN STAFFORD: The conditional finding.

MS. GRABEL: Conditional finding.

MEMBER RICHINS: I think it's been well covered, but --

MS. GRABEL: It is not referenced elsewhere in this document. This is the first time the finding is referenced.

MEMBER RICHINS: Okay.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER KRYDER: I have a question for Attorney Grabel.

MS. GRABEL: Yes, sir.

MEMBER KRYDER: Is it thereby your opinion that the Condition 9 as printed ought to be struck?

MS. GRABEL: So as somebody who thinks kind of chronologically I think you need to introduce in the document why the Committee's making the finding that it's making, and it is pursuant to TEP's request.

I tried to get rid of anything inflammatory

that was in the prior finding. And so that's -- I would leave it in because I think it makes the flow of the read better.

And when you go to the next line, it talks about the City and Underground Arizona's position on the finding, and then the negotiated language in 11.

MEMBER KRYDER: Thank you very much. That's clarifying.

MEMBER RICHINS: Chairman, I think the language that I'm struggling with is -- is -- it's an editorialized comment which is unreasonably restrictive.

CHMN STAFFORD: Well, that's the language from the statute.

MEMBER RICHINS: Well, I know. And that's -- that's what I'm trying to remove is because this is -- this is -- this is language to help litigation and leverage, and -- and I do not want to give that.

And so I -- I would strike -- I actually would move to strike 9 altogether.

MEMBER HILL: Second.

MEMBER SOMERS: Second.

CHMN STAFFORD: Further discussion?

MS. GRABEL: So, Mr. Chairman, if I could respond.

CHMN STAFFORD: Okay. Yeah, I'm looking

at -- because they're trying to get to the stipulated language of 11, and I'm wondering -- because I -- I'm just trying to have it how it makes sense leading up to that.

MR. LUSK: Mr. Chair.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: If I may suggest, it may be actually helpful in this instance to discuss the two, 9 and 10 together. I think they might be related.

MEMBER HILL: That's what I'm struggling with.

MR. LUSK: Sure.

CHMN STAFFORD: Right. Because you need to have a lead up to that to say that it's --

MS. GRABEL: So if the language in 9 that you're struggling with, Member Richins and Member Hill and Member Somers, is the language about being unreasonably restrictive, that comes straight from the statute, and it is contained in the finding.

If you would like to delete it in 9, you could just say "TEP therefore requested a finding pursuant to A.R.S. 40-360.06(D)," which is functionally the same. But this isn't language I inserted because I'm TEP's lawyer. It's literally quoting the statute.

You could even put it in quotes, "The

project was," quote, "unreasonably restrictive and that compliance therewith is infeasible in light of the technology available," unquote. Sorry.

CHMN STAFFORD: That was really fast.

Okay. Yeah, I think -- so we're -- I'm not suggesting amendments yet, but I'm just talking this through.

So if you remove the first --

MEMBER RICHINS: I think it --

CHMN STAFFORD: -- line -- the first sentence and then the second sentence of the finding of fact and start where "TEP therefore requested," you could state, "The applicant has requested a finding that compliance with any local ordinance or plan that would require underground construction of the project" -- and then "was," and then you could put in quotes -- "unreasonably restrictive and that compliance therewith is infeasible in light of the technology available," end quotes.

I believe that's the statutory language purpose to A.R.S. 40-360.06(D). And that would be a factual statement of what has actually occurred in this process.

MEMBER LITTLE: Mr. Chairman.

MEMBER RICHINS: I disagree with the term

"unreasonably" here.

CHMN STAFFORD: It's quoting the statute. We're not finding that it is. We're finding -- this is a finding of fact that TEP has requested the finding that is the case.

MEMBER RICHINS: Okay. I see what you're saying.

CHMN STAFFORD: That's a statement of the fact and the law under which they are requesting relief.

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Member Kryder.

MEMBER LITTLE: Mr. Chairman.

MEMBER KRYDER: I think your language was very clarifying, and thereby I move that finding of fact --

MEMBER RICHINS: You can't do that. We have a motion on the table already.

CHMN STAFFORD: The motion is to strike.

MEMBER KRYDER: Okay. I would not want to strike it but rather to use the language that you proposed.

CHMN STAFFORD: Right. We can't -- we can't do an amendment until we resolve the motion to strike.

MEMBER KRYDER: I get that.

CHMN STAFFORD: So we have --

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: We can either call the question and vote on the motion or --

MEMBER KRYDER: Yes. Call the question.

CHMN STAFFORD: -- or Member Richins could withdraw his motion.

Those are the two options before us right now, I believe.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: Can I comment?

CHMN STAFFORD: Certainly.

MEMBER LITTLE: Or did Member Kryder call the question?

CHMN STAFFORD: Did you call the question, Member Kryder?

MEMBER KRYDER: I did.

CHMN STAFFORD: Okay. All right. Well, then let's do a roll call vote.

The motion before the Committee is to strike Finding of Fact and Conclusion of Law Number 9.

Member Kryder?

MEMBER KRYDER: No.

CHMN STAFFORD: Member Mercer?

MEMBER MERCER: No.
CHMN STAFFORD: Member Gold?
MEMBER GOLD: No.
CHMN STAFFORD: Member Drago?
MEMBER DRAGO: Nay.
CHMN STAFFORD: Member Richins?
MEMBER RICHINS: Yes.
CHMN STAFFORD: Member Hill?
MEMBER HILL: Yes.
CHMN STAFFORD: Member Little?
MEMBER LITTLE: No.
CHMN STAFFORD: Member Somers?
MEMBER SOMERS: Yes.
CHMN STAFFORD: And I vote no.
So a vote of 6-3 the motion -- or 3-6 the motion fails.
So we need a motion to adopt 9, and then we can consider motions to amend it.
MEMBER GOLD: I make a motion to adopt 9.
MEMBER KRYDER: Second.
CHMN STAFFORD: Further discussion?
MEMBER GOLD: Mr. Chairman.
CHMN STAFFORD: Yes, Member Gold.
MEMBER GOLD: It is a fact that the cost of building underground is more expensive than building

overhead. That is a fact.

It is a fact that TEP explored alternative funding.

At the time of this hearing the funding sources were determined -- were determined to be nonviable.

CHMN STAFFORD: That's reference to the four -- Proposition 412 being voted down.

MEMBER GOLD: Yes. So it's a fact that TEP therefore requested a finding that would make the project work.

Everything here is a statement of fact.

However, nothing there is a conclusion of law.

CHMN STAFFORD: Right. That's why we kind of clump them together. They can be either-or.

MEMBER GOLD: Oh, it can be either-or?

CHMN STAFFORD: Yeah. That's why the whole section is entitled, Findings of Fact and Conclusions of Law.

I mean, in other Commission orders like rate cases they'll have a whole big giant section of findings of fact and then they'll have a section of conclusions of law.

MEMBER GOLD: Okay. So we just combined

the two, so it could be either.

CHMN STAFFORD: Yeah. The Committee -- this is how -- this is how the -- the Committee's by tradition done it -- grouped them together so they can be either-or in that section.

MEMBER GOLD: So therefore, everything here is a fact.

MEMBER LITTLE: Mr. Chair.

MEMBER GOLD: What are we objecting to?

CHMN STAFFORD: All right. Member Hill.

MEMBER HILL: So I think -- I don't have an issue with the statement that TEP requested a finding.

I think it's the lead up to that that makes me uneasy because it seems to validate -- it seems to suggest that TEP's request is -- it seems to make a case for TEP's request in a way that I don't find completely factual. I'm not saying that there isn't a cost difference. Maybe it's a separate finding if we want to address that.

I know that TEP explored alternative fundings, but I am not certain if they exhausted that or all of them are nonviable options.

And so I think if we narrowed it to what TEP requested from us and then simultaneously with 10 kept it narrow as to what the City and Underground

Arizona believe and they're comfortable with that language, I'm kind of fine with both of these.

But it does feel like that introductory section of 9 is intended to give more weight to the position of one of the members of this conflict over the other. And so that's what I'm just trying to be sensitive to.

CHMN STAFFORD: I hear you, Member Hill.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: I'm thinking that if it looked more like in the light -- in light of the incremental cost difference between the costs of building the project overhead compared to underground.

MS. GRABEL: TEP requested a finding.

CHMN STAFFORD: TEP has requested a finding -- TEP requested or the applicant requested a finding that compliance with any local ordinance or plan that would require underground construction of the project -- I think we need to add a qualifier that it's without -- that require the utility to cover the cost.

But that's in a later one. I think that's one of the ones we did.

So I just think, yes, for this one I think that we could just -- if we just trim it down to state that there was an issue with the cost difference between

underground and aboveground and because of that TEP has requested a finding pursuant to A.R.S. 40-360.06(D).

MEMBER RICHINS: Chairman, I have a suggestion that might add clarity.

MEMBER LITTLE: Mr. Chairman.

MEMBER RICHINS: Perhaps we lead with the request for the finding in this section. And so the emphasis is on that you requested a finding. We didn't necessarily give you one, but you requested a finding based on the following criteria.

Because -- because -- the -- the lead-in in reverse like this makes it sound like all that other stuff is, you know -- and, yeah, there's -- yeah, it's more expensive to underground than overhead. Nobody's disputing the facts in that.

But the paragraph itself is turning on the request, right. So maybe we emphasize the request. Okay.

MS. HILL: Mr. Chair. It's Meghan Hill.

CHMN STAFFORD: Oh, Ms. Hill.

MS. HILL: I'm sorry. I just wanted to ask Member Richins my own clarifying question because I think it will help us understand.

I don't have any issue with what you are talking about. I just have a question about -- and we

haven't gotten to the paragraph that -- of the language that TEP and the City and Banner were able to agree on yesterday.

And when you say we're not necessarily giving you a finding, I just want to make sure that what we're talking about here -- because when we are drafting the findings of fact, we're trying to draft it in a way that makes some sense to the Commission about why any approval or anything like that occurred.

Are you referring to the fact that the finding in the paragraph that TEP, the City, Banner agreed upon yesterday is conditional?

MEMBER RICHINS: No. It hinges on 9 actually with 10. It just -- it's just the way these two paragraphs are constructed puts particular emphasis on those facts rather than the request, which is the request is what this is really focusing on.

MS. HILL: Thank you.

MEMBER RICHINS: Yeah. Thank you.

MR. DEMPSEY: May I make a comment?

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Member Little.

MEMBER LITTLE: I'm in agreement with much of what has been said here.

I agree that striking that part of 9 that

is highlighted on the screen there is a very good idea.

I would also like to strongly suggest that your -- that we follow your suggestion of putting quotation marks around the unreasonably restrictive and compliance therewith, the language that actually came from the statute, so that we know that we didn't have anything to say with -- about it being unreasonably restrictive at this point. That's what the statute said and that's what TEP is requesting.

CHMN STAFFORD: Right.

MEMBER LITTLE: I also have a question.

Do we have to -- does -- do all of those words have to be in there if it's even mentioned?

Can we say it's unreasonably restrictive but not say it's infeasible?

CHMN STAFFORD: Well, I think it's part of the finding that they're requesting, so I think it's accurate to include that line from the statute.

MEMBER LITTLE: In this place I agree because that is what they requested.

But what about elsewhere?

CHMN STAFFORD: Well, let's get -- I think -- I think the party -- I think both TEP and the City have agreed to the language in its entirety in 10 and 11. So my thought is for this one --

MEMBER LITTLE: 11 and 12.

CHMN STAFFORD: 11 and 12. Yeah, 11 and 12. Excuse me. Okay.

Right. My thought is for this one here for 9 to read, "In light of the incremental cost difference between the cost of building the project overhead compared to underground, the applicant requested" --

MR. DEMPSEY: I'd like to make a comment.

CHMN STAFFORD: Not now -- "requested a finding from this Committee that" -- I guess you could put that -- that would be inside the quotes as well. And I'm reading from the statute here as well. "That compliance with such ordinance, master plan, or regulation," end quote, that would require underground construction of the project, quote, "is unreasonably restrictive and compliance therewith is not feasible in view of technology available," end quote.

Because some of those words are in the statute and some are not, and we don't want to -- because require undergrounding the project is not in the statute.

MS. GRABEL: Correct.

CHMN STAFFORD: But that's -- but those are the plan, regulation, ordinance that we're talking about. But that's what the applicant was just talking about.

MEMBER LITTLE: But where are the quotes

going?

MS. GRABEL: So I think to the Chairman's point that the language that we're actually quoting verbatim from the statute and could be quoted starts before the word unreasonably and ends after the word available.

MEMBER LITTLE: Yep.

MEMBER RICHINS: Chairman, 11 and 12 cover this. It's almost like you don't need 9 and 10 anymore because you cover it so well in 11 and 12 in your negotiated language. This is almost a --

MS. GRABEL: Member Richins.

CHMN STAFFORD: Well, it's -- I think it's a finding of fact that the applicant requested this, and it's kind of like if --

MEMBER RICHINS: It feels like a preamble to 11 and 12.

MS. GRABEL: Except -- sir, I'm sorry. 10 and 11 were the negotiated languages, not 11 and 12. So 10 is very important to the City.

MEMBER RICHINS: No, no, no. Yes, yes, yes.

MS. GRABEL: And 9 is a segue into 10.

CHMN STAFFORD: Right. So I think 9 lays out the position of the applicant, 10 lays out the

position of the City and Underground Arizona. And then 11 is the negotiated solution.

That's the way I see it.

MS. GRABEL: Correct.

CHMN STAFFORD: Right. Okay.

Well, it should be from this Committee, quote --

MS. GRABEL: Actually, Mr. Chairman, I don't think the quote's correct there because we didn't quote the statute verbatim.

CHMN STAFFORD: Right. But I wanted to put it in here.

MS. GRABEL: Okay.

CHMN STAFFORD: And then we'll unquote around the part that you added to describe it, and then back to the quote and then reference to statute so they know that it's -- so it's clear that it's the statute so that compliance with any --

MS. GRABEL: Actually --

CHMN STAFFORD: -- with such --

MS. GRABEL: -- now I see what you're struggling with.

CHMN STAFFORD: Right.

MS. GRABEL: I think perhaps we just delete the words "that compliance with" because I think we

requested a finding from the Committee that any local ordinance or plan that would require underground construction of the project was, quote, "unreasonably restrictive." I think we've a duplicate of "compliance with."

CHMN STAFFORD: There you go. Yes. Okay. So that would be it is -- then in quotes would be is "unreasonably restrictive and compliance therewith is not feasible in view of the technology available," end quote.

MS. GRABEL: Correct.

MR. LUSK: So, Mr. Chair, just briefly on that. I think the language of the statute actually says master plan.

CHMN STAFFORD: No. It's ordinance, master plan, or regulation.

MR. LUSK: Correct.

MS. GRABEL: But we're not quoting part.

CHMN STAFFORD: We're not quoting that part of the statute.

MR. LUSK: Okay.

CHMN STAFFORD: Because it's too awkward to say such.

MEMBER RICHINS: And it states that in 12. It references the master plan.

MR. LUSK: Thank you.

MR. DEMPSEY: Let me know when you're ready for my comment.

CHMN STAFFORD: Okay. I think that's -- I think 9 is -- I think it makes sense -- it's an accurate factual statement what the applicant has requested.

Mr. Dempsey, you had a comment?

MR. DEMPSEY: Yeah. So the problem that we have here and elsewhere is use of the word "incremental." That's not in the policy statement. It's not in the statute. The language is actually "significant cost." It's much more.

To me the word "incremental" is a tiny amount. We're not talking about a tiny amount here. We're talking about large amounts.

CHMN STAFFORD: We're talking about the difference between putting it on poles aboveground and the difference from putting it under the ground, the cost difference between those two things.

MR. DEMPSEY: Right.

CHMN STAFFORD: I think -- and the issue is that difference. And that's the focus of the Commission. That's what they mean when they talk about the cost of undergrounding.

They're not -- they don't oppose the cost of building necessary transmission lines aboveground.

What they are concerned with is the additional cost of putting it underground. That's -- they're not putting that in rates because that's -- unless undergrounding is required for reliability or safety, for example, when you're, like, how APS's lines downtown there's no place to put the lines aboveground because of the buildings, they have to be underground, that's a condition that statement of policy would not apply because that's for safety and operational reasons.

Whereas it's perfectly feasible to put the lines aboveground, but the choice to put them belowground is due to the City ordinance or plan.

The cost difference is what the Commission is concerned with. And that's what the applicant pointed out, and that's we're talking about here. That's the whole crux of the issue. That is why they requested the finding.

MR. DEMPSEY: So I'm not asking that you remove "cost difference." I'm just -- just the word "incremental" to me sounds it's not -- if you read the policy statement, it says "much more," not just "more." It says "much more."

CHMN STAFFORD: It is much more. I think looking at my notes with the preferred route I had based on Exhibit TEP-31 or 32 I'm not -- it was, like, 63 --

well, it's almost a $64 million difference for the cost of the line.

MR. LUSK: If I may, Chair. If I may assist in this.

I think what UAZ is trying to point out is that incremental doesn't -- that the word "incremental" doesn't provide enough information in terms of the -- because there's no definition for what incremental is in the document, and so nobody as -- and I agree with Member Richins, nobody is disputing that there is a cost difference, but just the cost difference is sufficient.

MS. GRABEL: The reason that the applicant did not put any kind of modifier to incremental was really because we believe that the Committee -- there are variations into what the difference in undergrounding versus aboveground is, and it was very clear that we didn't want to get into any multipliers or anything to that extent.

CHMN STAFFORD: Right. I'm looking at -- the dictionary definition of incremental is relating to or denoting an increase or addition, especially one of a series on a fixed scale.

MS. GRABEL: Correct. Well, we thought the definition kind of spoke for itself and did not need to be modified.

CHMN STAFFORD: That's the common -- from the Oxford language dictionary I just Googled that's what the meaning of incremental is.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: It's also -- the use of incremental difference or incremental -- or incremental difference because it can be between rates. It can be between all kinds of things. But it's a very common term in the utility industry.

MR. DEMPSEY: Well, I guess what I'm suggesting is if you strike the word "incremental" there, it doesn't change the sentence.

MEMBER GOLD: Mr. Chairman, the cost is going up. It's an additional cost. As you stated in your explanation, why not just change "incremental" to "additional."

CHMN STAFFORD: Or you could say, "In light of the additional cost of building the project underground instead of overhead" --

MS. GRABEL: We think the word incremental as defined really works. It's a word that's very commonly used at the Commission. I guess I don't understand why -- why we would need to change it.

MEMBER GOLD: I think this is between the

lawyers, and the rest of us should take a break.

CHMN STAFFORD: Well, how long have we been going?

We'll take another break here in about five minutes, I think.

MEMBER RICHINS: We're almost done.

CHMN STAFFORD: Let's get through -- let's get through this --

MEMBER RICHINS: I want to go home.

CHMN STAFFORD: -- this Finding of Fact and Conclusion of Law.

So I myself am comfortable with incremental. It means the additional marginal cost. That's -- it's on the record here, "incremental" means additional marginal cost.

MEMBER HILL: Do you want to put in additional marginal cost?

MR. DEMPSEY: Yeah, just say that.

MR. LUSK: The City is fine with the Chairman's suggested language of additional cost.

CHMN STAFFORD: Additional marginal cost I think is --

MS. GRABEL: We would just stick with incremental. I'm not sure what the concern is.

CHMN STAFFORD: Yeah.

MS. GRABEL: And "incremental" is also used in the paragraph that was negotiated by the parties in 11. And so this is --

MR. LUSK: And we disagreed there too.

MS. GRABEL: You did not disagree --

CHMN STAFFORD: I thought you guys worked it out and agreed --

MR. DEMPSEY: I was not a part of that, so -- if they're not -- if "additional" means the same thing to them, then what's the problem with changing it?

I think that's the heart of the issue here. They really want to keep it, and there's a reason for that.

MS. HILL: Mr. Chair, may I?

CHMN STAFFORD: Well, you have to rephrase it because they use -- they talk about the building project overhead first, so it's not additional cost to build it overhead compared to the underground.

MS. HILL: Mr. Chair, may I? This is Megan Hill.

CHMN STAFFORD: Oh, Ms. Hill, sorry.

MS. HILL: And I don't want you to blame Ms. Grabel for her client's intransigence here. So I would like to just talk about this.

And I'm sure that because Mr. Dempsey has

so much experience with utilities, as he described in his testimony, he understands that regulatory bodies when they are looking at rates, when they are looking at cost of -- you know, at our cost of capital, when they're looking at that, they're looking at the cost differential, and they're calling it incremental cost.

This is a commonly defined term in the industry. And any confusion about what this document means is going to refer back to that is essentially what I want to say. And having been a litigator for 20 years, what I'd like to do is stay out of court about what does -- what does excessive or substantial or whatever.

We try to use terms that are commonly understood in the industry that are used on a regular basis and that will not -- they're not -- it's not going to generate any confusion at the Commission.

And so I understand -- I disagree with the City's position, and we talked about this yesterday. I disagree with the City's stating our position at any time during this discussion, quite frankly.

And so I just want to be really clear that this is -- this is very -- this is an item -- we've compromised a lot. We've put on a lot here. We're working through a lot of things. This language is important to us.

MR. LUSK: Mr. Chairman, can I respond?

CHMN STAFFORD: Yes, Mr. Lusk.

MR. LUSK: I am not suggesting that I was trying to suggest what their position is. I understand they disagree, and we disagreed about it in the e-mail.

But more -- I'm just thinking for this particular paragraph "incremental" provides nothing that is required other than cost difference.

And as also a litigator, that isn't up to interpretation in court as to what that word would mean. And the applicant will proceed to argue that based on industry practice it means this thing, and under the law the City will mention something else. I'm trying to prevent litigation as well.

So if we can just go with a word that -- without the word at all. We don't -- why do we need it?

MR. DEMPSEY: Or "additional marginal." It means the same thing, and it's not as --

MR. LUSK: I'm just -- I'm just suggesting we completely leave the word out in light of the cost difference. Everybody understands there's a cost difference. That's it.

CHMN STAFFORD: Well, I think the -- well, I'd have to disagree with you there. Because if you take out "incremental," I think you could interpret it as

meaning that the cost of building the project overhead is more expensive than underground.

MR. LUSK: Incremental doesn't change that.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: As somebody who has also worked in the utility industry for more years than I like to say, I am in total agreement with Ms. Hill. Incremental cost is -- it is so common in the utility industry.

MR. LUSK: Might I suggest, Member Little, then instead we put in "the difference in the incremental cost."

CHMN STAFFORD: What?

MR. LUSK: "The difference in the incremental cost" because that doesn't make a judgment on what that cost difference is. If you want the word "incremental," that's my suggestion.

MEMBER LITTLE: "Difference in incremental cost" would mean that you're comparing two incremental costs and that you're looking at the difference between them. That's -- it's kind of meaningless.

CHMN STAFFORD: Well, I'm wondering if it shouldn't be --

MEMBER LITTLE: And you really don't need

the word "difference."

"In light of the incremental cost between" the cost of -- "between building" without even putting the other word "cost" in.

The way that I have heard it used in the industry would be to reflect this would be "In light of the incremental cost between building the project overhead compared to underground."

CHMN STAFFORD: I think it would be better in the reverse. "In light of the incremental cost of building the project underground compared to overhead."

Because that's -- because here's the cost of overhead, here's the cost of underground. And it's the -- I think we need to reverse it the other way and just "incremental cost," and that would cover the whole thing because that's what the evidence shows.

MEMBER LITTLE: Exactly right. That's exactly right. And leave the word "difference" out because "incremental" means difference and --

MS. HILL: The applicant --

CHMN STAFFORD: "Incremental" means additional cost, additional marginal cost. So it's like you need to reverse the order when you speak about it, because, like I said, it should be "In light of the incremental cost of building the project underground

compared to overhead the applicant requested a finding."

MEMBER LITTLE: Yes.

CHMN STAFFORD: I think that gets us to where we need to be.

MEMBER GOLD: I move that that verbiage be used.

CHMN STAFFORD: Wait -- have we -- have we moved this -- oh, yes, we're in discussion. I always -- the discussions go on so long I forgot we did that.

Okay. So the motion is to amend Number 9 so to say what I just said.

MEMBER GOLD: And all the lawyers were shaking their heads yes.

MR. LUSK: So we could just remove the word "difference;" is that right?

MS. HILL: So it's in light of the incremental --

CHMN STAFFORD: Right. And reverse the order.

All right. One at a time.

MEMBER LITTLE: Well, it actually should be "incremental cost of building the project overhead compared to underground."

CHMN STAFFORD: It should be reversed. "In light of the incremental cost of building the project

underground compared to overhead."

MEMBER LITTLE: Yes. Yes. Thank you.

CHMN STAFFORD: All right. Now I think that's a fair statement of what the applicant's position was in this case.

MEMBER GOLD: And the motion has been made to accept it.

Is it seconded?

CHMN STAFFORD: Is it seconded?

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: 9 has been amended.

Now we can move it as amended or --

MEMBER GOLD: I move Finding of Fact and Conclusion of Law Number 9 be amend -- be accepted as amended.

MEMBER MERCER: Second.

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

MEMBER SOMERS: Mr. Chair. Mr. Chairman.

CHMN STAFFORD: The vote has been called for.

Did you vote opposed?

MEMBER SOMERS: I did not because I can't read the language. It's blurry.

CHMN STAFFORD: I'll read it to you.

MEMBER SOMERS: Thank you.

CHMN STAFFORD: All right. "In light of the incremental cost of building the project underground compared to overhead, the applicant requested a finding from this Committee that any local ordinance or plan that would require underground construction of the project was unreasonably restrictive and that compliance therewith is infeasible in light of the technology available pursuant to A.R.S. Section 40-360.06(D).

MEMBER SOMERS: Thank you, Chair. I appreciate that. I'll vote "aye."

CHMN STAFFORD: Okay. Opposed?

MEMBER RICHINS: I vote "nay."

CHMN STAFFORD: I didn't hear you, Member Richins.

MEMBER RICHINS: "Nay."

CHMN STAFFORD: "Nay." Okay.

Well, the count of the vote is 8-4 -- 8-1, 8 in favor, 1 opposed.

Finding of Fact and Conclusion of Law of Number 9 is adopted as amended.

All right. Where are we at now? Well, we're at the 90-minute mark. We will take a hopefully brief recess. Five to 10 minutes. Maybe 10. I think the court reporter needs more than five.

But and then we'll come back. And then we will we have --

MEMBER RICHINS: Nine.

CHMN STAFFORD: Nine or 10 more Findings of Fact and Conclusions of Law to make it through until we're done with that portion. And then we have to move on to the maps and exhibits. But we are getting close.

With that, we stand in recess.

(Recess from 12:50 p.m. to 1:28 p.m.)

CHMN STAFFORD: Let's go back on the record.

Okay. We had adopted Finding of Fact and Conclusion of Law Number 9 as admitted. Now we are on to Number 10.

MEMBER LITTLE: Mr. Chairman, I move Number 10 so that we can begin discussion.

MEMBER HILL: Second.

CHMN STAFFORD: All right. Number 10, let's ask the City and Underground Arizona if this accurately describes their position.

MR. LUSK: The City would agree that it does reflect our position.

CHMN STAFFORD: Mr. Dempsey.

MR. DEMPSEY: Yes, you just need to fix where it says "its." It should say the City's. But, yes.

MR. LUSK: If that makes it more clear I'm fine with that.

CHMN STAFFORD: Which line are you talking about?

MR. DEMPSEY: 1.

MEMBER LITTLE: Oh, that is correct.

MR. DEMPSEY: I wish we had ordinances.

MR. LUSK: Line 9 I think is the --

MS. GRABEL: 9. So you could just delete "its."

CHMN STAFFORD: Right, and it says are reasonably restrictive, would it be better to say are not unreasonably restrictive?

MEMBER LITTLE: Please.

MR. LUSK: I'm sorry, say that one more

time, Chairman.

CHMN STAFFORD: Okay. It says "and that the local ordinances are reasonably restrictive." Wouldn't it be better to say are unreasonably restrictive?

MR. LUSK: We're fine with that, Chairman. I was trying to avoid a double negative just for personal preference.

MS. GRABEL: And just for a reminder to the Committee, 10 and 11 were the paragraphs that we crafted in the room yesterday.

CHMN STAFFORD: Okay. Well, I'm fine with 10 as it is, then.

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: I would really like to see it changed as you suggested, not unreasonably restrictive. Reasonably restrictive, I don't know, that just sounds awkward to me.

However, I will only suggest that if it is okay with the parties.

MR. LUSK: Member Little, the City's fine with that.

CHMN STAFFORD: All right. 10 has been moved and seconded. Is our amendment on the floor?

MEMBER LITTLE: I so move.

MEMBER MERCER: Second.

CHMN STAFFORD: Thank you, Member Mercer. The amendment is to change it from "reasonably restrictive" to "not unreasonably restrictive."

Further discussion?

MR. ANCHARSKI: Chairman, just -- just clarification, this is Mr. Ancharski over here. You did remove "its."

CHMN STAFFORD: And "its."

MR. ANCHARSKI: We discussed that. But removed it.

CHMN STAFFORD: That was part of your amendment, too, Member Little. Wasn't it?

MEMBER LITTLE: Yes. Oh, yes.

CHMN STAFFORD: Okay. Excellent. All right. The amendment is moved and seconded. Further discussion?

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the condition amendment carries.

Can someone move Number 10 as amended?

MEMBER MERCER: So moved.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact, Conclusion of Law 10 as amended is adopted.

Number 11. And this is the language that the City and TEP agreed to after their discussions yesterday; correct?

MS. GRABEL: That is correct, subject to a later e-mail we received from the City and I'll let the City speak to that first.

MR. LUSK: And we just want to state on the record, Mr. Chair, that the concern that the City has with the language is that in -- let me refer to the line -- appropriate line number. Where it's talking about, oh, line 14, 15, that any local ordinance or plan that requires TEP to incur an incremental cost to construct the project, I think the concern is is that the Commission and/or parties going forward may take that as that if any utility has to incur any cost to underground

then it's unreasonable, then for compliance with code or whatever, that it'll be unreasonably restrictive and/or technologically infeasible. And we would just want to state on the record that that's not our position.

CHMN STAFFORD: It's only TEP that we're talking about here.

MR. LUSK: Correct.

CHMN STAFFORD: When it comes to the undergrounding of any of the attachers, whatever, that's --

MR. LUSK: No, no we're not talking about -- we're not talking about joint-use attachers or anything like that. We want to make sure that for the record everybody understands the City's position is that -- that the City's position is is that any local ordinance that may require a utility to incur a cost to comply with its law is not unreasonably restrictive or makes it -- does not make it technologically infeasible, and I'm fine with just stating that on the record.

CHMN STAFFORD: Okay. Yeah, because like, my understanding is it's all about the incremental costs of undergrounding as opposed to overhead, and that's it. And it's not just -- it's the fact as to how that is paid for. If there's -- that's the point, that's kind of the conditional finding we're talking about here. So

that's -- everybody agrees on that; correct?

MR. LUSK: Well, and what our position is is that, again, that just stating it for the record that that is not the definition of feasibility.

CHMN STAFFORD: Okay. So --

MR. LUSK: So that's where our disagreement is and we understand that.

CHMN STAFFORD: All right. Okay. But you're not suggesting we change the language; correct?

MR. LUSK: Not at this time, no.

CHMN STAFFORD: Okay. Well, it's speak now or forever hold your peace.

MR. LUSK: Well, I think we reserved our right for judicial review.

CHMN STAFFORD: Right, and that was expressed in the prior finding.

MEMBER RICHINS: Mr. Chairman.

CHMN STAFFORD: Yes, Member Richins.

MEMBER RICHINS: We've been editing the letters "TEP" to "the applicant". Do we want to continue that form in this paragraph?

CHMN STAFFORD: I think -- I did double-check that and it says applicant or TEP in the paragraph. I think in a lot of cases it make sense to do applicant, but this case since we're talking about

multiple parties and stuff, it's shorter to put TEP. I think it works for this one.

MEMBER HILL: Mr. Chair, I move approval of fact -- Findings of Fact 11.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion.

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law Number 11 is adopted.

On to Number 12.

MEMBER LITTLE: Mr. Chairman, I move Finding of Fact and Conclusion of Law Number 12.

MEMBER HILL: Second.

CHMN STAFFORD: Further discussion?

MR. LUSK: Mr. Chair.

CHMN STAFFORD: Mr. Lusk.

MR. LUSK: In consistency with the Committee's prior determination on the previous, I'm wondering if it might be just helpful to -- just use the last sentence of that. I don't think anything else is necessary. Or it is already been discussed, I guess.

CHMN STAFFORD: It's just quoting statute. I'm fine leaving it in there. Members? Preferences?

MEMBER KRYDER: I think it's fine where it is, Mr. Chairman.

CHMN STAFFORD: All right. It has been moved and seconded.

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law Number 12 is adopted.

MEMBER MERCER: Mr. Chairman, I move Finding of Fact and Conclusions of Law Number 13.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

MEMBER LITTLE: Mr. Chairman.

CHMN STAFFORD: Yes, Member Little.

MEMBER LITTLE: 13 as always bothered me. The word "aids" implied increases or makes the adequate economical and reliable supply of electric power better. And we have no way of knowing whether any project aids the southwestern region of the United States.

The studies -- what the studies show is that the addition of a project, if the studies are done

properly, the addition of the project does not negatively affect the grid. That's what they're intended to do.

I would like to see the language changed, and once again I would like to reiterate that TEP with this project has followed the process and the procedure and all of the study avenues open to it, and the western grid, just exactly as it should have. And for that they are to be commended.

But I would like to see that language changed to "the project aids TEP and the state in meeting the need for an adequate economical and reliable supply of electric power and will not negatively affect the regional electric systems."

Because I believe that's what we know.

MEMBER HILL: If that's a motion I will second that. I think it's a much better wording and directly applies to the project.

MEMBER KRYDER: I would second that amendment.

CHMN STAFFORD: All right. Further discussion on the amendment? Do you need a minute to get that, Mr. Ancharski?

MEMBER DRAGO: Mr. Chairman.

Yes, Member Drago.

MEMBER DRAGO: Member Little, I

thought you were headed down the road of replacing the project "aids," and maybe put "contributes."

MEMBER LITTLE: Well, "contributes" we still know -- I mean the testimony and the record has shown that TEP needs this project. And that by installing this -- building this project, it is definitely going to increase the reliability, the economics, the adequacy of their system. I believe they have shown that in the record.

And by extension, because the utilities of our state and in the immediate area are affected by the strength of each other, I believe that I -- I know as a fact that it will also increase or aid or contribute to the -- those things for the state also.

I also know because of the regional studies that this project has been included in WECC, West Connect, SWAT, that it will do no harm, that there will not be any overloads, any voltage or any -- any problems caused by installing this system, which is what the purpose of those studies is.

So I just don't think that we can say that the project contributes to the southwest region or the western grid because those studies are not intended to show us that. They're intended to show that there will be no issues.

And if the company feels differently I would like to hear what they have to say.

MEMBER DRAGO: Thank you, Member Little.

CHMN STAFFORD: Ms. Grabel.

MS. GRABEL: We agree with you, Member Little. We think that's a more accurate and precise depiction of what the project is doing.

MEMBER GOLD: Mr. Chairman.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: I think 13 and 14 say almost the same thing.

MEMBER LITTLE: 14 just talks about the state. It does not talk about the region or the western grid.

MEMBER HILL: It underscores the importance of the conditions. That's how I see 14 being a little bit different.

MEMBER LITTLE: Right. And it also talks about safety and -- safety.

MEMBER GOLD: I think we can easily combine 13 and 14 into one sentence.

CHMN STAFFORD: Perhaps, but I would suggest we do that in a different hearing that hasn't lasted two weeks.

MEMBER GOLD: Then I retract my statement.

MEMBER LITTLE: Thank you.

CHMN STAFFORD: I think it could be some wordsmithing, but I think another time would be better suited, that's all.

MEMBER LITTLE: Yeah, I just wanted to make that change in this one because I believe so strongly that TEP has followed, has done everything they should do when it comes to system studies. And that they have shown these things very strongly.

CHMN STAFFORD: So do we have an amendment -- this is an amendment that's been seconded; correct?

MEMBER HILL: Correct.

CHMN STAFFORD: Is there further discussion on the amendment?

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, the amendment is passed.

MEMBER KRYDER: Mr. Chairman.

MEMBER GOLD: I move amendment 13 be accepted or be moved forward, however you're supposed to do it.

CHMN STAFFORD: As amended.

MEMBER GOLD: As amended.

CHMN STAFFORD: Yes.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion, Member Kryder?

MEMBER KRYDER: Only to say that we're still two hours off of the 10 days.

CHMN STAFFORD: Thank you for that astute observation, Member Kryder.

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law Number 13 as amended is adopted.

MEMBER GOLD: I move Finding of Fact and Conclusions of Law for Number 14.

MEMBER MERCER: Second.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion?

All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusion of Law Number 14 is adopted.

Number 15.

MEMBER GOLD: I move 15 be adopted.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law Number 15 is adopted.

MEMBER GOLD: I moved 16 be adopted.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law Number 16 is adopted.

Number 17.

MEMBER GOLD: For the sake of brevity I moved 17 be adopted.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law 17 is adopted.

MEMBER GOLD: Your turn.

CHMN STAFFORD: Number 18.

MEMBER MERCER: I move Finding of Fact and Conclusions of Law Number 18.

MEMBER GOLD: Second.

CHMN STAFFORD: Thank you. Thank you, Member Gold, for the second.

Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of

Fact and Conclusions of Law Number 18 is adopted.

Number 19.

MEMBER LITTLE: Mr. Chairman, I move 19.

MEMBER GOLD: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Finding of Fact and Conclusions of Law Number 19 is adopted.

On to Exhibit A.

MEMBER RICHINS: Wait, Chairman, is it still July or is it August already? I'm trying to -- we've been here a while.

MEMBER SOMERS: I was thinking the same thing.

CHMN STAFFORD: 2025? What year is it?

MEMBER RICHINS: You don't have to write my jokes down. You don't.

THE COURT REPORTER: Yes, I do.

MEMBER RICHINS: Just when I swore earlier, strike that.

CHMN STAFFORD: Okay. All right. This

will be Exhibit A. This is the map that accompanied the application that shows all the potential routes proposed by the applicant.

MEMBER GOLD: I move Exhibit A be adopted.

MEMBER MERCER: Second.

MEMBER LITTLE: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Now, here comes the tricky part. Exhibit B.

MEMBER HILL: A new Exhibit B?

CHMN STAFFORD: Yes, they haven't pulled it up yet here.

MEMBER GOLD: Where's B --

CHMN STAFFORD: I saw Mr. Bryner waving a paper copy around earlier.

MR. BRYNER: It's done.

MS. GRABEL: We have it. It's been amended.

CHMN STAFFORD: I think it's on our -- okay. It's the big breakdown with the corridors.

So the first part, this is the B-4 map; correct?

MS. GRABEL: Yes. Correct.

CHMN STAFFORD: Okay. And this one is entirely correct, we've covered this one, this is the one we looked at at the hearing and had all the correct corridor widths.

MEMBER DRAGO: Mr. Chairman.

CHMN STAFFORD: Yes.

MEMBER DRAGO: For the record, it may have been talked about some period over the past two weeks. But the squares, numbered 1 through 9, explain the significance of the square box.

MR. BRYNER: Yeah. I'd be happy to take your question, Member Drago. So those are simply, that's an index map. So each of those 1 through 9 refer to the subsequent pages that are details of those portions.

MEMBER DRAGO: Thank you.

CHMN STAFFORD: All right. And then there is, this is the first section for B-4. I guess we can -- do we want to do this by itself first and then D, 1, and 1.2? It is all part of Exhibit B.

MEMBER GOLD: Can we just do them all at once?

CHMN STAFFORD: We can, so I think we've looked at the first 10 pages and they reflect it accurately. Let's go on to -- the next one is going to

be D. Yes. This is D. Correct?

MS. GRABEL: That is correct.

CHMN STAFFORD: Okay. And I believe -- what was the discrepancy was for --

MEMBER HILL: Map 4.

CHMN STAFFORD: Right there, both those two.

MS. GRABEL: And you'll see in the orange the corridor has now been expanded to include both Lester and Ring.

CHMN STAFFORD: Excellent. And then we have -- so that -- and this is D, 1, and 1.2; correct?

MS. GRABEL: That's correct.

CHMN STAFFORD: All right. I'll entertain a motion to adopt Exhibit B.

MEMBER HILL: Motion to adopt Exhibit B.

MEMBER MERCER: Second.

CHMN STAFFORD: Further discussion?

MEMBER KRYDER: Mr. Chairman.

CHMN STAFFORD: Yes, Member Kryder.

MEMBER KRYDER: Does this address the issues that Banner raised? I'm not quite clear what I'm looking at up there. Go through and give me a minute or so of that issue around Lester Street and the Circle Drive or whatever.

CHMN STAFFORD: Yes. That was right there. It's -- there's Lester and then there's Ring Drive.

MEMBER KRYDER: Ring Drive, not Circle Drive. Thank you.

CHMN STAFFORD: Right, and the Committee decided to have -- the corridor should be wide enough to allow them to construct on either of those roads, recognizing the fact that it would be difficult and create delays to pursue a route along Ring Road.

But that was not -- but that was not foreclosed by the corridor. The corridor would allow it even though it would be impractical to do so.

MEMBER KRYDER: Thank you.

Ms. De Blasi, does that address the issues for Banner to you?

CHMN STAFFORD: No, it does not. She --

MS. DE BLASI: No, it exacerbates them, and we had understood that TEP was in agreement to make the corridor on the -- the 100 feet on Lester Road which apparently they retracted. So Banner will do what Banner's going to do.

MEMBER KRYDER: Thank you.

MS. GRABEL: Just for the record, Chairman.

Ms. De Blasi, we certainly didn't retract our interest in pursuing Lester. We just reflected this

Committee's interest in allowing both. But we are certainly pursuing the one that will not result in condemnation action.

MS. DE BLASI: Understood. Understood.

CHMN STAFFORD: The point was the Committee was not going to foreclose that option through the corridor. The corridor would allow it whether or not the utility chooses to pursue it. That was the point that I -- that's what I thought we all agreed on.

MEMBER KRYDER: Thank you, Mr. Chairman. That was my question.

CHMN STAFFORD: All right. So Exhibit B has been moved and seconded. Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Opposed?

(No response.)

CHMN STAFFORD: Hearing none, Exhibit B is adopted. All right. Now we are ready to move on to vote on the CEC as a whole. Member Kryder.

MEMBER KRYDER: Yes.

CHMN STAFFORD: Member Mercer.

MEMBER MERCER: Yes.

CHMN STAFFORD: Member Gold.

MEMBER GOLD: Yes.
CHMN STAFFORD: Member Drago.
MEMBER DRAGO: Yes.
CHMN STAFFORD: Member Hill.
MEMBER HILL: Yes.
CHMN STAFFORD: Member Richins.
MEMBER RICHINS: Yes.
CHMN STAFFORD: Member Somers.
MEMBER SOMERS: Yes.
CHMN STAFFORD: Member Little.
MEMBER LITTLE: Mr. Chairman, I am going to get a bit gushy here and say that I cannot thank the applicant enough for how well they -- what a good job they did and how well they pursued or presented all of this. It was a difficult project. And they led us through it. And I really appreciate that.

I also want to thank the intervenors. Without you guys we would not have been able to do this, and I really appreciate your time and the information that you presented, and with that I vote aye.

CHMN STAFFORD: And I vote aye. By a vote of nine to zero, the certificate is granted.
MEMBER LITTLE: Yay.
CHMN STAFFORD: I would like to --
MEMBER LITTLE: Champagne. Champagne.

CHMN STAFFORD: I would like to thank the parties for their endurance in putting up with this, in getting us through this hearing. It took the full two weeks. This is the longest CEC hearing I've ever been to. I think that's the case for most of us here.

But I appreciate everyone's patience and their continued effort to work together on this. And I look forward to the -- to seeing this project come to fruition and to the improvement of the grid here in Tucson.

And I would also like to get a motion for me to correct scrivener's errors and typos and whatever.

MEMBER HILL: So moved.

MEMBER DRAGO: Second.

CHMN STAFFORD: Further discussion?

(No response.)

CHMN STAFFORD: All in favor say "aye."

(A chorus of "ayes.")

CHMN STAFFORD: Motion carries.

Member Richins, I believe you had --

MEMBER RICHINS: Mr. Grant -- maybe a quick --

CHMN STAFFORD: Go ahead.

MEMBER RICHINS: I don't know if many of you that have been around for a while, Michael Grant was

a long time in front of this Committee. He passed away yesterday.

MS. GRABEL: Oh no.

MEMBER RICHINS: He was the host of Horizon and appeared many times before the Corporation Commission, and I just wanted to note his passing, and the significant contribution he made to this industry and the State and political dialogue, civil political dialogue, in Arizona. And so I just wanted to recognize him on the record before we concluded.

CHMN STAFFORD: Thank you. He was a class act and he will be missed.

MS. GRABEL: Mr. Chairman, may I also -- this feels horrible after hearing about Mike. But TEP, the Meghans really want to thank you guys from the bottom of our hearts. I know it's been two weeks, it's been hot, it's been tiring.

But we are so impressed by the way that you really took the time and effort to understand the routes, to understand the impacts, to make recommendation that improved our recommendations, and, I mean, it's been long but we are very grateful to each and every one of you for the time that you took, so thank you all. This Committee does not get enough attention and gratitude for the very hard work that you do, so thank you. Thank you.

CHMN STAFFORD: Thank you.

MS. GRABEL: And thank you, Jennifer, and thank you, A/V Team.

MEMBER LITTLE: Yes, yes, absolutely.

MR. LUSK: And the City would reiterate that as well. We appreciate the time and energy that you put into reviewing all the matters and this was a complicated case, and we appreciate you taking that time.

CHMN STAFFORD: We really appreciate the City coming in and giving us its perspective and its efforts to work with the utility and to try to push forward to get past this whatever impasse may have been in the past. I look forward to you working together and making this project happen.

And to Underground Arizona, Mr. Dempsey, thank you for your input.

MR. DEMPSEY: Thank you.

CHMN STAFFORD: Ms. De Blasi, you as well. We appreciate when parties come and contribute to the process.

MEMBER DRAGO: Mr. Lusk.

MR. LUSK: Yes, Member Drago.

MEMBER DRAGO: Thank you for teaching me what a chicane and a stravenue is. I've learned something new.

MR. LUSK: You're quite welcome, Member Drago. Thank you.

CHMN STAFFORD: Anything further?

MEMBER HILL: Mr. Chair, I do want to acknowledge all of the public input we've had, and how much individuals have stuck with us throughout the week, throughout the two weeks.

I really appreciate public engagement. I mean, I'm a relatively new member but I think this might be the largest amount of public engagement that we've ever had. A lot of what we do is under the radar. It's really nice when residents and community leaders can come talk to us about what they need in these projects. So I want to thank you those folks too.

MEMBER LITTLE: Absolutely. Absolutely.

CHMN STAFFORD: Well, thank you everyone. With that, we are adjourned.

(Proceedings concluded at 1:58 p.m.)

STATE OF ARIZONA)
)
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the foregoing pages are a full, true, and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206(J)(1)(g)(1) and (2).

Dated at Phoenix, Arizona, July 25, 2024.



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