BEFORE THE ARIZONA POWER PLANT
AND TRANSMISSION LINE SITING COMMITTEE

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 IRVINGTON TO EAST LOOP 138 KILOVOLT (kV) TRANSMISSION LINE PROJECT, WHICH INCLUDES THE CONSTRUCTION OF NEW 138 kV TRANSMISSION LINES ORIGINATING AT THE IRVINGTON SUBSTATION (SECTION 03, TOWNSHIP 15 SOUTH, RANGE 14 EAST), WITH AN INTERCONNECTION AT THE PORT SUBSTATION (SECTION 18, TOWNSHIP 15 SOUTH, RANGE 15 EAST) AND THE PATRIOT SUBSTATION (SECTION 31, TOWNSHIP 14 SOUTH, RANGE 15 EAST), AND TERMINATING AT THE EAST LOOP SUBSTATION (SECTION 08, TOWNSHIP 14 SOUTH, RANGE 15 EAST), EACH LOCATED WITHIN PIMA COUNTY, ARIZONA.	) DOCKET NO. L-00000C-20-0007-00186) LS CASE NO. 186

At: Tucson, Arizona

Date: February 25, 2020

Filed: March 2, 2020

REPORTER'S TRANSCRIPT OF PROCEEDINGS

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(Pages 142 through 281)

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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 the DoubleTree Inn Hotel 455 South Alvernon Way, Tucson, Arizona, commencing at 9:13 a.m. on the 25th day of February, 2020.

BEFORE: THOMAS K. CHENAL, Chairman

LAURIE WOODALL, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
JOHN RIGGINS, Arizona Department of Water Resources
MARY HAMWAY, Cities and Towns
JAMES PALMER, Agriculture
PATRICIA NOLAND, Public Member
JACK HAENICHEN, Public Member

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CHMN. CHENAL: Good morning, everyone. This is the time set for the resumption of the hearing.

And this morning, we're going to start the tour. So we'll depart in just a few moments. I just want to remind the Committee and anyone who's going to be accompanying us on the tour that we can entertain a few questions at the various stops, but I would ask you to reserve your questions until when we get back. And we'll start up in the afternoon, and we'll have plenty of opportunity to ask questions about the tour that don't involve any long explanations. It's very difficult for the court reporter to take all that down out in the field.

But we'll go to the stops, we'll listen to a little commentary at each key observation point, and we'll take a few questions. But if you have extended questions, just try to hold them until we get back.

Any questions from the Committee?

MEMBER WOODALL: Mr. Chairman, so I take it there will not be any discussions regarding this case while we're on the bus outside the presence or potential presence of the public?

CHMN. CHENAL: Yes.

MEMBER WOODALL: Thank you.

CHMN. CHENAL: Anything from the applicant we

should discuss before we leave?

MR. DERSTINE: I think the only -- well, I'll defer -- the room will be locked up if you want to leave things here. Chris is going to be here, but we'll also make sure that the room is secure.

I think there are boxes of things and snacks to bring as well as water, and I think there's also an itinerary of the tour there on the table.

MEMBER WOODALL: So we don't need to bring this?

MR. DERSTINE: I don't think so. You can, but I think there is a separate tour itinerary map.

That's all I've got. Is there anything else?

(No response.)

CHMN. CHENAL: All right. Let's go.

(The hearing recessed for the route tour at 9:15 a.m.)

(TIME NOTED: 9:23 a.m.)

(Present for the route tour: Chairman Chenal, Member Hamway, Member Haenichen, Member Palmer, Member Riggins, Member Woodall, Member Drago, Ed Beck, Eric Raatz, Renee Darling, Patrick Dubberly, Claudia Paulsen, Matt Derstine, Megan DeCorse, Melissa Morales, and Adriana Marinez.)

STOP 1

(TIME NOTED: 9:37 a.m.)

CHMN. CHENAL: So this is Stop 1.

Mr. Raatz.

MR. RAATZ: Here we are looking at the East Loop Substation and the existing transmission line corridor that will be -- our preferred route will occupy.

CHMN. CHENAL: Can you please give us some directions here.

MR. RAATZ: Yes. To reiterate, we're looking at the East Loop Substation to the west of us. Just to the south of us is the existing transmission line corridor of which I spoke. And to the south of us are the existing lattice structures that we will be occupying.

As you can see, on the north side of that lattice structure is an open position. The lines occupying those lattice structures will be reconfigured to accommodate the new Patriot to East Loop circuit.

CHMN. CHENAL: All right. Let's proceed to Stop 2.

(TIME NOTED: 9:40 a.m.)

(All tour participants proceeded to Stop 2.)

STOP 2

(TIME NOTED 10:03 a.m.)

CHMN. CHENAL: So now we're at Stop 2.

Mr. Raatz.

MR. RAATZ: Here we are at Stop 2. This is one of the opportunities we'll be able to view alignment C1.

As you look towards the Pantano Wash, that is the Pantano walkway. The alignment C1 would extend north on the east side of the Pantano Wash and eventually cross to the west side of Pantano and extend to the existing transmission corridor.

If you'll note, to the east of us is the existing Pantano to East Loop transmission line. This is the Alternative B that will be reconstructed as double-circuit with the Patriot to East Loop circuit occupying one position and the Pantano to East Loop circuit occupying the other.

MR. BECK: Just to state, if you look west down 22nd, this is where the C1 would be coming in and crossing over the Pantano Wash.

MS. DECORSE: What is that pole right there?

MR. RAATZ: I believe it's a 46 pole.

If you'll note on the existing structures, the arms extend approximately 10 feet from the structure.

CHMN. CHENAL: Any questions?

(No response.)

CHMN. CHENAL: Let's go to the next one.

(TIME NOTED: 10:07 a.m.)

(All tour participants proceeded to Stop 3.)

MR. BECK: Just to point out, this is the alignment of the existing line. And just to the south is the trailer park that we're rerouting around, Tucson Meadows.

MR. DERSTINE: The existing line of what?

MR. BECK: Existing B2.

CHMN. CHENAL: Is this Stop 3?

MR. BECK: No. We can go on to our stop.

STOP 3

(TIME NOTED: 10:12 a.m.)

CHMN. CHENAL: We're on the Stop No. 3. We're going to stay on the bus.

Mr. Raatz.

MR. RAATZ: So what you're looking at here, to the north, kind of northeast of us, is the existing line going through the Tucson Meadows neighborhood. And as you look kind of to the south here, that line continues on. This is the area that we'll be removing, this portion, and jogging along here.

So last night, there was an individual with the public comment that had concern for the subdivision to our west. The pole, we measured an aerial image this morning, and the arm would extend approximately 5 foot from the subdivision property line. And it's approximately 25 foot to the closest house.

So the poles, the realignment would be built on the west side of the road. And this is Alternative B2 as well, the preferred alternative. But it would travel north and jog back to the east, would connect into the existing transmission corridor that continues north along Pantano through the industrial parkway where we just drove through, the South Research Loop. We kind of weaved in and out.

MR. DERSTINE: What are we seeing here, this line?

MR. RAATZ: This is an existing 46 line. This will remain in service should Alternative B2 be approved.

From this point on, we're going to depart from the existing transmission alignment and come to the west side of South Pantano Road and continue on around the bend. And when we hit up with South Research Loop, I believe it is, we'll continue east and meet up with the existing transmission corridor where we stopped, where we had that brief stop that wasn't shown on the tour.

CHMN. CHENAL: Are we on Pantano Road now?

MR. RAATZ: South Pantano. So Pantano jogs at 22nd.

CHMN. CHENAL: I was a little confused on the route we took. Had we stayed south on Pantano and gone south, we would have seen the jog?

MR. RAATZ: We would not have seen that jog. Where we are right now, we are right here. And so there's two Pantanos.

MR. BECK: We'll have to show you on a map.

CHMN. CHENAL: Anything more here?

MR. RAATZ: No.

CHMN. CHENAL: Any questions?

MEMBER DRAGO: I was going to ask about the jog, the triangle, on Pantano. Where are we relative to that, what part of the triangle?

MR. RAATZ: We are at the bottom of the triangle where the red circle is. Actually, this would be like this. So this is north. So, for the record, we are at the south portion of the triangle shown on Exhibit 6 of the tour map.

(TIME NOTED: 10:15 a.m.)

(All tour participants proceeded to Stop 4.)

STOP 4

(TIME NOTED: 10:21 a.m.)

CHMN. CHENAL: We're at Stop No. 4. And the actual Stop 4 would be at Escalante and Pantano, which is the intersection if we look out the bus to the left at the intersection there. But, Mr. Raatz, why don't you tell us what we're looking at here.

MR. RAATZ: For the record, we're going to be looking at Alternative B2, the preferred route. And behind you is north direction. In front of you is south direction. We are at the intersection of Carson and Escalante. We are at the northwest corner of Carson and Escalante.

CHMN. CHENAL: But the preferred route would come from the north, proceed south on Pantano, and then make a right turn at Escalante heading west?

MR. RAATZ: Correct.

Yes, the preferred route would utilize the existing transmission corridor from Los Reales to Pantano. And at Escalante, we would head west, and it will be a single-circuit from that point on. It would be double-circuit along Pantano, picking up the existing circuit there. The portion along Escalante will be constructed along the south side of the road. And, once again, that will be single-circuit. So that will be

directly south of us here.

And just one thing to note as we continue on, we do have an existing 46 structure and distribution line on the north side of the road.

CHMN. CHENAL: Any questions?

(No response.)

CHMN. CHENAL: Thank you.

(TIME NOTED: 10:25 a.m.)

(All tour participants proceeded to Stop 5.)

STOP 5

(TIME NOTED: 10:30 a.m.)

CHMN. CHENAL: So we're at Stop No. 5.

Mr. Raatz or Mr. Beck.

MR. RAATZ: We are at Stop No. 5.

And this gives us an opportunity to see the location for the Patriot Substation, which would be located on the southwest corner directly kitty-corner from you and it also gives us the opportunity to see where Alternative A1 would continue north and C1 would continue north. Then the common alternative, Alternative 1, would continue south along Kolb Road.

Alternative A and Alternative C1 would be located on the west side of Kolb Road. And at this location, also, one thing to note, our preferred route,

Alternative B2, would turn and head east along the south side of Escalante Road.

So all routes in this area would be single-circuit 138kV, for note.

Are there any questions?

MR. BECK: Maybe just to add a little bit, Patriot Substation, again, on that corner diagonally across from us, those planes will be removed. There will be a little more testimony on that this afternoon on -- we're giving you some information about the relocation of those planes. But that is a portion of the Boneyard or the AMARG organization. So these are all planes that they have in storage.

CHMN. CHENAL: Approximately, again, how many acres will that substation occupy?

MR. BECK: The site that we're obtaining is approximately 16 acres, of which we'll use roughly 6 acres as our substation site initially.

MR. RAATZ: So one last thing, if I may. This will be -- we have one more stop before this, but from this point on, we'll be traveling north along Kolb Road. But please be sure to look at the existing transmission line with respect to the existing properties. We'll cross over to the east side of Kolb Road here. And we will be making a U-turn and coming back down and heading

south along Kolb Road.

And we will be passing though -- not through Davis-Monthan Air Force Base, but Kolb Road bisects Davis-Monthan east and west. And we'll be traveling underneath the bridges that we saw on the Google Flyover that we saw yesterday.

Just some things to keep aware of as we won't have the opportunity to speak to again until our next stop.

CHMN. CHENAL: So from here, we're going to go north on Kolb Road. And then we're going to make a U-turn and come south back to this point and continue south on Kolb Road to Stop No. 6; correct.

MR. RAATZ: Yes. We'll be taking at right on Littletown.

MS. DARLING: I'd like to add that when we get to 22nd Street is where we pick up the second circuit from the 138. And that point, it's double-circuit to East Loop. And please note the proximity of the homes on Kolb Road to that proposed double-circuit line in comparison to what you just saw on Pantano Road, please.

CHMN. CHENAL: So let me catch up with you. Alternative A and C1 would head north from this point on Kolb Road on the east side of Kolb Road or the west side of Kolb Road?

MS. DARLING: They start on the west. At the Kolb Substation, they will cross -- around at that location, they cross back to the east.

CHMN. CHENAL: Where's the location of Kolb Substation in relation to where we're standing? North of us?

MR. RAATZ: It is north of us, yes.

CHMN. CHENAL: So from where we're standing -- wait a second. Alternative A and C1 would proceed on the west side of Kolb Road, heading north to the Kolb Substation, would cross over to the east side of Kolb Road and would then continue north from there?

MR. RAATZ: That is correct. At the South Kolb Substation, we pick up the 46. We'll have three spans of 46, double-circuit 46 and 138 on that. And at Golf Links is where the 46 would drop off and head west.

CHMN. CHENAL: But, to your point, it's the proximity of where the lines would be on the east side of Kolb Road to the properties?

MS. DARLING: Correct. North of 22nd where we get the two double-circuit 138 lines for Alternative A. C1 will turn east on 22nd and come up the wash.

MR. RAATZ: That's our existing corridor that we'll be traveling.

CHMN. CHENAL: Questions?

(No response.)

CHMN. CHENAL: Okay. Let's go back on the bus, and we'll do the continuation of the tour.

(TIME NOTED: 10:37 a.m.)

(All tour participants proceeded to Stop 6.)

STOP 6

(TIME NOTED: 11:14 a.m.)

CHMN. CHENAL: This is Stop 6.

Mr. Raatz.

MR. RAATZ: Here we are on the -- as you're facing north, you can see the existing distribution line as it runs in an easterly-westerly direction. This existing distribution will be underground in this area, and the Alternative 1 will occupy the space in this location.

If you look west, you can see where the existing distribution travels in a northwesterly direction following the Union Pacific Railroad. The alignment 1 will follow the same alignment.

Now, to the east of us, if you look down at the empty lot about half a mile down the road where the road starts to jog in a southeast, that parcel is where the future Port Substation will be located.

MR. BECK: If you want to, we can go back to

the Port Substation location.

CHMN. CHENAL: Yes, let's do that

(TIME NOTED: 11:17 a.m.)

(All tour participants proceeded to Stop 6A.)

STOP 6A

(TIME NOTED: 11:20 a.m.)

CHMN. CHENAL: This is actually -- we'll call it Stop 6A, back to the area where the Port Substation is going to be. So we're all staying on the bus.

Mr. Raatz, if you want to explain what we're looking at here.

MR. RAATZ: Okay. Just to the south of us, we're looking at where the Port Substation is going to be located. And the transmission line Alternative 1 would be just to the north of us, and it would be running along the -- where the existing distribution is, just on the other side of the road.

And just one thing to mention, this distribution line, this is the area that we had public comment last night where there was erosion in the area of this existing distribution line. It's a little further east from here.

One thing to note, too, I didn't mention it, but that's the new Amazon distribution facility. And

then that borders just, I believe, the Port of Tucson.

MR. BECK: So that Amazon site is the one that's causing drainage issues and causing erosion. So that's part of that development that's causing it.

CHMN. CHENAL: We'll look at that on the flyover when we get back.

MEMBER HAENICHEN: I just have a question about the Amazon facility. How much energy does that use?

MR. RAATZ: I will get back to you on that.

CHMN. CHENAL: Anything else?

(No response.)

CHMN. CHENAL: Okay. That's all.

(TIME NOTED: 11:23 a.m.)

(All tour participants returned to the hearing location, arriving at 11:50 a.m.)

(The hearing resumed at 1:14 p.m.)

CHMN. CHENAL: Good afternoon, everybody. This is the time set for resumption of the hearing.

We had a nice tour this morning. So I'd like to first ask the Committee if there are any questions that they have regarding what we saw on the tour.

Yes, Member Riggins.

MEMBER RIGGINS: So, I guess, Mr. Raatz or Ms. Darling -- and I don't know if we specifically saw it

on the tour, but it was just a question I had.

The scenic corridor, did we see that or where that's located when we were out?

MR. RAATZ: Yes, we did pass through it. It was at the end of -- the southern end of Kolb Road before we turned right along Littletown and before we crossed over Valencia in the area where the Amazon distribution warehouse was.

MEMBER RIGGINS: And so the follow-on to that is what entity designates that a scenic corridor?

MR. RAATZ: Member Riggins, in this corridor, it is Pima County designates the scenic corridor.

MEMBER RIGGINS: And what constitutes -- what actually defines that northern boundary along Kolb Road?

MR. RAATZ: We transition from Pima County into the city of Tucson.

MEMBER RIGGINS: So the northern boundary is actually where Pima County transitions into the city of Tucson?

MR. RAATZ: That is correct.

MR. DERSTINE: Mr. Chairman, can I have Ms. Darling maybe describe the major scenic corridor.

EDMOND BECK, ERIC RAATZ, and RENEE DARLING, called as witnesses on behalf of Applicant, having been previously duly sworn, en masse, by the Chairman, were examined and testified as follows:

DIRECT EXAMINATION (Cont.)

BY MR. DERSTINE:

Q. We have on the right screen here showing where that is. It's actually on Valencia Road, right? Ms. Darling, can you kind of give us a little more information on the scenic corridor designation, where it is and what that does?

A. (BY MS. DARLING) Yes. It's actually called a Pima County Major Scenic Route.

Pima County has both major arterial routes, and then some of them may add a layer called "scenic" on top of.

So it extends from Littletown to Valencia. And it actually extends along Valencia a little ways where you see this loop down. This is actually within the scenic and then going this way towards the Pima Air & Space Museum partially. And then there's a break, and then it picks up again.

And it's designated from the centerline of the road, half the right-of-way width beyond the road

right-of-way. So in this case, it's 300 feet plus 150 feet either side of the right-of-way.

So that's why it gets so wide here, to allow flexibility. You'll see that we preliminarily put it here on the very edge, and then we have 150 feet on this side. And then, to get us to this side of the road, we had added, you know, to get outside of the scenic corridor.

It's just from here, if you zoom just a little bit out, you can see where it ends. Yeah, it's just this little stretch here. And then we're back out of the scenic, we go into the City of Tucson property, and then we get back to the regular 300-foot corridor.

Q. But the scenic corridor is actually on Valencia Road, which is the looping section; correct?

A. (BY MS. DARLING) Yeah, all of this is the scenic corridor --

Q. Follows --

A. (BY MS. DARLING) Right.

Q. And it's just where Alternative 1 crosses and overlaps on Valencia that we're being impacted by that; is that right?

A. (BY MS. DARLING) Say that again.

Q. So we're expanding our requested corridor to 900 feet in this area. But we're not -- this is on Kolb

Road; right?

A. (BY MS. DARLING) This is Kolb Road.

Q. And so it's not that our route is on the scenic corridor of Valencia, but we're crossing it, and that requires us to blow out and expand the corridor that we're asking. Do I have that right?

A. (BY MS. DARLING) Yes.

CHMN. CHENAL: Member Noland.

MEMBER NOLAND: The scenic corridor has very stringent restrictions.

MS. DARLING: Yes.

MEMBER NOLAND: Sight, visibility, height restrictions, structure restrictions; is that correct?

MS. DARLING: That's correct. That's why it's -- and they extend beyond the road right-of-way, half the width of the right-of-way. So if the right-of-way is 300 feet, you have to go even 150 feet beyond that right-of-way --

MEMBER NOLAND: I understand.

MS. DARLING: -- or you need to obtain a variance, which is -- they don't like --

MEMBER NOLAND: You're not going to get that. I built a house on a scenic route, so I'm very familiar with Pima County's requirements.

But what I don't understand -- and forgive me

if I'm catching up here -- is why you have extended that corridor the whole way when that's not all scenic route.

MS. DARLING: So if you -- I'm sorry. If you take the half right-of-way width on this and this, it just leaves a little tiny section kind of in between. So it's just to get straight across without going out to here, back into here, up, back out to here, out like that. So it was just to keep this a straight line.

So it could -- you could come in, although it seems to defeat the scenic corridor kind of designation. But you could do that, yes.

MEMBER NOLAND: Well, I'm more concerned about to the -- is that the south of Valencia?

MS. DARLING: This is the Port of Tucson here or here.

MEMBER NOLAND: Can somebody give me a pointer? Thanks.

What I'm concerned about is this area. Why are you extending that far on this side?

MS. DARLING: So these are industrial businesses. The reason was this property developer -- it's a single landowner. And it was just to allow flexibility if this landowner would deny an easement, because we can't be in the road right-of-way using a franchise agreement.

MEMBER NOLAND: And how many landowners are there here? Four?

MS. DARLING: I believe there's four this way and then there's these two side by side here, so five, and this one probably is six, actually.

MEMBER NOLAND: But as far as the scenic route goes, that would just be this area in here that you're impacted. Would that be correct?

MS. DARLING: Correct. So we could jump out to here, come up, jump back in, go up and jump over. So it was really just a lot of flexibility in design and with so many landowners there.

MEMBER NOLAND: Thank you.

MS. DARLING: Yes.

CHMN. CHENAL: Any other questions from the Committee?

(No response.)

CHMN. CHENAL: Okay. Please proceed.

I think, Mr. Derstine, what we wanted to do -- and I think we had talked about this before we started the afternoon session -- for the benefit of Member Noland, to have kind of a narrative flyover presentation again. And then after that, I would personally like to see it just start to finish with no narration, just give us an opportunity to see it front to back.

MR. DERSTINE: I think Mr. Raatz is prepared to do that.

CHMN. CHENAL: Super.

MR. RAATZ: Are we all set?

MR. DERSTINE: I think so.

I just want to note before we start with the flyover, we've been having Mr. Dubberly doing a million things at once, creating maps on the fly and new slides and adjusting corridor widths on the flyover, etc. So we appreciate all of his efforts and his technical wizardry in all this.

Are we ready?

MR. RAATZ: Yes.

We'll be starting the Google Earth Flyover of the Irvington Substation to East Loop Substation 138kV Transmission Line Project.

(Google Earth Flyover video shown.)

MR. RAATZ: Here you see the study area. And with respect to the City of Tucson, the study area is outlined in the purple line. The City of Tucson is shaded in gray.

Continuing on, we zoom in to the study area with respect to the City of Tucson. Now you can see the study area. We've got points of interconnection at Irvington, East Loop, the proposed Patriot Substation,

and the proposed Port Substation. And the purple line, once again, is the study area identified for this project.

And we're bringing forth to the Committee three alternatives.

Alternative 1, which is between Irvington and Patriot, is common to all three alternatives.

And we have Alternative A, which goes from the Patriot Substation north along Kolb Road to the East Loop Substation.

And Alternative B2 goes from the Patriot Substation, heads east on Escalante Road, and turns north and continues on in an existing transmission corridor along Pantano Road and terminates at the East Loop Substation.

And Alternative C1, similar to Alternative A, leaves the Patriot Substation, proceeds north. The difference here is that at 22nd Street, it turns east where it crosses over the Pantano Wash and then is adjacent to the Pantano Wash, where it crosses back over to the west side and terminates in the East Loop Substation.

Here, we'll be reviewing Alternative 1, which again is common to all alternatives. And then again goes from the Irvington Substation through the Davis-Monthan

property, bisects Davis-Monthan east and west through the Patriot Substation.

We've got some navigation tips as we follow along. Note that Alternative 1 is colored red, just as Alternative 1 on every map we've presented. The centerline of the alignment will also be colored red to match the maps.

We have a compass, very hard to see, up in the upper right-hand corner. Currently north is pointing down toward the lower left-hand side of the screen.

Along the way, we'll have key observation points as found in Exhibit G-5. They will be popping in. And also we'll identify some of the tour stops that we saw along our tour.

And lastly, we've got the 300-foot corridor width we're requesting shown in a black shadow. So just to the south here, we have our RICE units, which we drove by on the tour.

And just to the north of that is the existing 138kV substation. And just to the north of that is the 46kV substation.

So we'll be beginning our line at this location. If you want to pause, P-Dub.

So right here, this is no longer here, just to note, and we've gotten rid of the ponds as well.

This structure right here is where we pick up the 46kV. So from this location heading southeast will be double-circuit 138 on the left side of the screen and then 46 on the right side of the screen. So we're right about here.

So as we proceed southeasterly, we're coming upon the planned Raptor Ridge solar facility, which we saw on our tour. This is a 10-megawatt solar facility at full buildout. And just to the left of that is our existing E.ON solar facility.

And here, we've got Key Observation Point 1, the current condition. You can see the stacks from the RICE units in the back there.

And Key Observation Point 1, simulated condition. You can see how the 46 will take off and go into the Raptor Ridge solar facility.

Again, moving southeasterly, we'll have a single-circuit 138kV and a 300-foot corridor request that's centered on the centerline of the alignment. And just to the top left-hand side of the screen is the Pima Air & Space Museum, one of the constraints, considerations in choosing Alternative 1. And we're bound to the south by the Union Pacific Railroad.

So we turn and continue east. And up here was the last stop that we just had on our tour. We saw the

distribution in the area. And up to the right begins the Port of Tucson property, which we spoke to earlier in the testimony.

And the yellow polyline outline is the location of the Port Substation that was in proximity to Stop 6A, I believe it was. So, again, we are single-circuit 138kV. And this is the area where we'll be requesting the 900-foot corridor that we just spoke to -- Ms. Darling spoke to earlier.

So as you see here, we jog over to the left, we're inside the road right-of-way at this point, and the major scenic route is no longer an issue.

And we jog over again. At this location, we're on Davis-Monthan Air Force Base property, just to the edge of the property. And this is single-circuit 138kV.

Coming up here, this was one of the design considerations. This is a bridge that connects Davis-Monthan Air Force Base east and west, and this bridge is used to transport aircraft from the east and west side of Davis-Monthan Air Force Base. So we had to accommodate the largest plane on base.

Down in this area, the corridor is centered on the centerline of the alignment, 300-foot corridor. It's single-circuit 138.

Just to the top of the screen here, you can see

the residential area. We cross over to avoid the residential area. We have Key Observation Point No. 3, the current condition.

P-Dub.

And we have Key Observation Point No. 3, the simulated conditions, where we cross from the east and west side of Kolb Road.

And here, we are approaching the Patriot Substation located at the northeast corner of -- or, excuse me, southwest corner of Escalante and Kolb. And this concludes Alternative 1, which, again, is common to all alternatives.

Now we'll be discussing Alternative A. And it's a straight shot from Patriot to East Loop Substation north along Kolb Road.

So we can note this was Tour Stop No. 5. So we start out on the west side of Kolb Road for probably 1,800 feet. And when we cross over to the east side of Kolb Road in this location, it's single-circuit 138.

We have Key Observation Point No. 4, the current condition, and Key Observation Point 4, the simulated condition. You can see it removed, the 46, in that area. This is single-circuit 138.

So something to note here --

CHMN. CHENAL: Let me just interrupt,

Mr. Raatz. Stop for just a second. I just want to make sure that Member Noland sees the shaded area, which is the corridor that is being requested, and the impacts, if you will, of the existing properties there.

Member Noland.

MEMBER NOLAND: And that brings up a question I had.

Are you using or planning to use the current right-of-way that you have, or is there a current right-of-way in there? I thought you had some if you already had poles in there.

MR. RAATZ: In this area, there are no existing poles, but we would be utilizing the existing franchise agreement that we have to try and keep the poles within the road right-of-way.

And the corridor shown currently is 300 feet, and it's centered on the centerline of the road right-of-way.

MEMBER NOLAND: And then why would you need that if you have a franchise agreement?

MR. RAATZ: It allows the flexibility to locate the poles or aerial -- obtain aerial easements as required, should the -- our intent would be to keep the poles within the right-of-way, but there may be areas where the conductor or the insulator or arm would hang

over outside the edge of right-of-way, and we would have to obtain aerial easements.

MR. DERSTINE: Mr. Chairman, Member Noland, to your point, when we viewed this, the flyover simulation, on our own, as we were developing it, it does nicely graphically show what a 300-foot corridor looks like. It also shows that that 300-foot corridor extends into and over the homes or residences that are very close to the edge of the road along Kolb in this area.

We're certainly sensitive to the idea of encroaching or moving structures onto private land. And that certainly is not our intent. It's not the intent of the company.

So the concern in this area -- and you can see from the simulation -- is that those homes are built up very close to the edge of the right-of-way. And so our intent is to put our structures in the right-of-way, but there are areas in which we may need to -- an arm may have to extend over into a private property line here on Kolb just because of the way the homes are built up very close.

So one of the things we talked about at the break yesterday was, is there a way to narrow -- what's the smallest corridor we could use and work with and still build this alternative.

And so I think what we can show you is we could live and build with a 200-foot corridor, which simply utilizes the road right-of-way plus approximately -- I think that's right -- 25 feet outside of the road right-of-way.

CHMN. CHENAL: On each side?

MR. DERSTINE: On each side.

So that's a 200-foot corridor imposed over the original 300-foot corridor. And, again, the intent is always to build in the road right-of-way. We're not looking to put a pole in someone's pool or backyard.

But there again, because of the narrowness and tight location along this route with this alternative, if it were selected, we may need to have an aerial easement. And what we want to do is at least have a corridor that allows us the flexibility to do that. And, candidly, there may be a spot in here where we've got to put a base of a structure up against or maybe even a little bit onto someone's property.

And so that's the difficulty with this alternative, and that's what we came up with in terms of the tightest and narrowest corridor that we could use to build this route.

MEMBER NOLAND: Mr. Chairman, whoever can answer this, why do you need that easement extending over

to the west side to that extent, not ending at the road right-of-way?

MR. DERSTINE: I think what we're trying to show is a 200-foot corridor centered on the road right-of-way. So it's 25 feet outside of the road right-of-way both on the east and the west.

Do I have that right?

MS. DARLING: Yes. I think the answer to your question is, if we have to cross the road with some section of the line -- and it's not our intent to do so, but all that's been done thus far is the design Blue Stake. And once you get into actual construction Blue Stake, it could show there's some utility or something there that we didn't know about that we might have to move across the street and then come back again. But that's not the plan.

MEMBER NOLAND: Okay. My last question for now is: This is the first time I've heard of aerial right-of-way. Can you explain that to me?

MS. DARLING: I can. So, for this project, because -- and more so, once we get north of 22nd Street, we're going from a single-circuit -- existing single-circuit 138kV to a double-circuit 138kV line. The current arms are on the street side of the pole. To rebuild, we would be putting arms on the home side of the

pole. And because this right-of-way is 150 feet but it's fully built out, so it's six lanes plus the median plus sidewalks and all of that, the arms, as Mr. Derstine has said, may extend beyond the property line. So --

MEMBER NOLAND: I understand that.

MS. DARLING: An aerial easement is permission from the landowner for the arm to extend onto their property where the pole itself would still be in the road right-of-way.

MEMBER NOLAND: Thank you. You learn something new every day. I didn't know people owned the air and could give you the right to use it. Thank you.

MS. DARLING: I wanted to add, too, another consideration that we get into when we talk about the stakeholder concerns is the City of Tucson is maintaining their ADA or Americans with Disabilities Act sidewalks, the 4-foot-wide sidewalks. And because this right-of-way is so tight and the circumference of our poles can be 3 feet, in order to stay in the road right-of-way, we may have to obtain easement from property owners for sidewalks.

So that was allowing -- that was one of the other reasons why we were -- for this alternative -- and then, again, it's not our preferred. But if, for this alternative, we might need that extra room to obtain

those kinds of easements as well.

MEMBER NOLAND: Thank you.

CHMN. CHENAL: Member Hamway.

MEMBER HAMWAY: So I think that up to 200 feet, the air above a home is owned by the homeowner. Above 200 feet, it brings in the FAA.

MS. DARLING: We're below. We're at 75 to 110 feet.

MEMBER HAMWAY: Okay.

CHMN. CHENAL: And, again, just so we're clear, this is Alternative A?

MR. DERSTINE: Yes.

CHMN. CHENAL: Which is not the preferred route?

MR. DERSTINE: Correct.

CHMN. CHENAL: But you're showing it, obviously, on this portion of the flyover. Okay.

MR. RAATZ: So here is the existing South Kolb Substation. At this location we'll be picking up the 46. So for three spans or so, we'll be double-circuit 46 on the left-hand side and 138 on the right-hand side.

So at this point, we are single-circuit 138.

And at this location, we'll be picking up an existing 138kV circuit, and we'll be in an existing 138kV circuit corridor. So from this point to north, to the

East Loops Substation, it will be double-circuit 138kV.

Here we have Key Observation Point No. 5, the current condition. You can see the existing 138kV structures in the background.

And then the simulated condition of Key Observation Point No. 5. And you can see it's framed as double-circuit.

So continuing north, the blue polyline at the upper right-hand portion of the screen represents the East Loop Substation parcel where both circuits will be turning in and terminating into the East Loop Substation. And just to note, this is Tour Stop 1 that we stopped at first thing this morning. And that concludes Alternative A.

CHMN. CHENAL: And the discussion we had about a 200-foot corridor, where would that be located? For the entire corridor of the length of Alternative A north of the Patriot Substation?

MS. DARLING: Yes, Chairman.

CHMN. CHENAL: Okay. So now we're going to look at C1, which, again, is not the preferred option?

MR. RAATZ: That's correct.

Alternative C1 is very similar to Alternative A as well. It leaves the Patriot Substation and heads north along Kolb Road. So as you can see here. And then

the difference being is that at 22nd Street, it will head east and continue along the Pantano Wash.

So we'll be leaving the Patriot Substation, very similar to the tour we just saw, Alternative A. The existing corridor that we have shown is centered along the centerline of the road right-of-way. And this is single circuit 138kV.

CHMN. CHENAL: Let me ask you right here, is the discussion about the 200-foot corridor applicable to Alternative C1 for the entire length of the C1 or just along Kolb Road?

MR. DERSTINE: All along Kolb Road. And then where Alternative C1 then angles onto 22nd Street --

MS. DARLING: We can reduce the entire C1 to 200 feet along the wash and 22nd.

CHMN. CHENAL: Okay. Thank you.

MR. RAATZ: So continuing north, we have our existing 46kV substation. We'll be double-circuiting 46 and 138 in this location. And the 46 drops off here, and the single-circuit 138 continues north.

And here is where we differ from Alternative A. We cross 22nd Street to the north side and head east on 22nd. And this is all single-circuit, whereas, Alternative A, continued north, was double.

And I believe this was Tour Stop 2 along our

way where we got out, and we were able to see -- look at the wash and see the existing 46 in this area.

So here we have Key Observation Point No. 10, the current condition. You can see the existing 46kV.

And then Key Observation Point 10, the simulated condition, going up the wash.

So in this area, the corridor is centered along the centerline of the alignment.

Here, we cross over Pantano Wash to the west side.

And here, we have Key Observation Point No. 11, the current condition.

And here, we have Key Observation Point No. 11, the simulated condition. You can see in the background the proposed transmission line. This key observation point is taken at Broadway and the Pantano Wash.

And we continue north. You can see in the upper left-hand side of the screen, that's the -- the blue polyline, again, is the East Loop parcel. And at this location, we turn into the existing transmission corridor. And right here were the lattice structures that we saw on the tour. And then if you recall, there was an open position on the northern side of those lattice structures. We'll be reconfiguring those. We won't have to do any construction in this area. And,

once again, this was Tour Stop No. 1.

And that concludes Alternative C1.

Moving on to Alternative B2. This is our preferred alternative.

It leaves the Patriot Substation and heads east along Escalante. And at Pantano, continues north along the existing transmission corridor.

So here we have, again, the planned Patriot Substation. And the corridor within this area is defined by the centerline of the road right-of-way. And this is all single-circuit 138kV for Alternative B2, the preferred.

CHMN. CHENAL: Could I ask that you put Alternative B2 on the right screen.

MR. RAATZ: All right. So we're right about here for Alternative B2. If you recall, this was Tour Stop No. 4. We stopped so we could see the existing line coming along Pantano Road.

And here, we'll be picking up the existing line and building in the existing corridor. And this will become double-circuit 138kV. So we are right about here.

CHMN. CHENAL: Let me ask you to stop right there, please.

So we're looking at a 300-foot corridor at this point, as depicted on the flyover. And I wanted to ask

the applicant, will this also be reduced to a 200-foot corridor for the entirety of the B2 preferred route?

MR. DERSTINE: I'll let Ms. Darling answer.

MS. DARLING: Yes. We can reduce this one as well to 200.

CHMN. CHENAL: For the entirety of the B2 portion?

MS. DARLING: Yes.

CHMN. CHENAL: Thank you very much.

MR. DERSTINE: Is that including Escalante?

MS. DARLING: Including Escalante.

MR. RAATZ: So this is double-circuit.

CHMN. CHENAL: Member Noland.

MEMBER NOLAND: Well, I've got a question. Why do you need a 200-foot corridor if you're going to put it in the existing right-of-way and easement?

MS. DARLING: For the same reasons as I had stated for Alternative A. But it's much, much less likely that we'll need it on Pantano because the road is actually a four-lane and is not -- the actual right-of-way is not as built out as much, so we're not pushed as far to the edge of the right-of-way where the arms would extend onto private property.

That being said, there's still design consideration. The poles are going to be relocated.

We're not building in the exact same location as the existing poles because the pole line is being taken out.

So once you get into the construction Blue Stake, it just allows a little bit of flexibility. It's a definite on Kolb Road but unlikely on Pantano Road that we would need aerial easements or have a need for additional easement for sidewalks. But just to allow the flexibility for those one or two areas where we just don't know at this time because there's not a final design done.

MEMBER NOLAND: What size is your easement now?

MS. DARLING: We are in road right-of-way.

MEMBER NOLAND: You're in the complete road right-of-way?

MS. DARLING: Yes.

MEMBER NOLAND: How much play is there in that right-of-way?

MS. DARLING: It varies a lot along the route. You'll see in the Google Earth, there are some places where the homes are very close to the right-of-way and we can't get closer to the edge. But there's a lot of open areas, too, where there's a lot of play. There's room for the City to still add sidewalks and things like that. There's a lot of areas that don't have sidewalks yet, but they want us to maintain the ability for them to add

them. So we have to take all that into account once we get to the final design for the project.

MEMBER NOLAND: So do you have an estimate of how much right-of-way is vacant and still usable from the actual pavement?

MS. DARLING: I can get it for you by tomorrow.

MEMBER NOLAND: Yeah, if you can, I'd like to know what we're dealing with here.

MS. DARLING: Sure.

MEMBER NOLAND: What's the right-of-way, also, that's currently paved? Is it a 30? Is it a 60? What did you say? It was a four-lane?

MS. DARLING: It's a four-lane with a center median for the most part, yes. Yeah, I can find out.

MEMBER NOLAND: Thank you.

MR. BECK: Mr. Chairman, Member Noland, if I could add, we understand the concern about the corridor width and the impact to the property owners adjacent to the project.

I think partially where we're coming from is our right-of-way department, in a previous project, we thought we had a corridor sufficient to do what we needed to do. And we actually had one property owner that wouldn't work with us. We went through condemnation, had some real problems with that. And in the end, we got

agreement from an adjacent property owner further away from the corridor -- from what was identified as the corridor -- to move the line onto their property. And not only did he say that you can move over onto my property in this piece, I also own property further north, and you can move the line up there onto my property and just deal with one landowner.

It worked out very well for us, but it was not within the defined corridor of our CEC. So we did have to go back to the Commission and go through the modification process. And while that can be done, and in most cases wouldn't be a major issue, if we can get a corridor defined that's wide enough to give us the flexibility to work with the landowners, that's what we're looking for.

And I know there's a trade-off between the impact to property owners versus our project. But, again, our intent is to stay where the line is to the extent we can. But if unforeseen circumstances come up, that little bit wider corridor gives us that flexibility. And it is not our intent to go out and encroach upon people's rights to the -- as little as we can is the intent.

MEMBER NOLAND: Thank you, Mr. Beck. I understand that. Because this is a pretty populated area

all the way around except for the Pantano Wash, but it's populated on both sides of that.

Do you pay for aerial right-of-way easement?

MR. BECK: If we obtain an aerial easement, yes, we pay for it.

MEMBER NOLAND: Wow. Okay. Thank you.

MR. RAATZ: Do you want me to continue?

We're continuing north. We're going to be double-circuit 138kV in this area.

And up towards the top of the screen is Tour Stop No. 3. This was the area where we stayed on the bus. And when we looked back, we kind of drove through this area. And rather than -- the existing transmission corridor goes straight through, but it does not go along a road in this area. It goes through an existing mobile home park, Tucson Meadows.

MS. DARLING: Tucson Meadows.

MR. RAATZ: And so we've taken that line and jogged it around the existing neighborhood on our preferred route, moving it out of the existing Tucson Meadows neighborhood.

So here, we have Key Observation Point No. 7. As you can see, the existing transmission structure in the background.

And the simulated condition removes that

structure out of that Tucson Meadows neighborhood and jogs around in this area right around here.

This was the industrial park area that we weaved in and out of on the tour.

Across the existing Pantano Wash and the existing corridor. And this was Tour Stop No. 2 again.

And we have the corridor centered on the centerline of the road right-of-way. Continuing along the existing alignment is double-circuit 138kV.

MR. DERSTINE: We're just taking a moment to show the 200-foot corridor, what that would look like in the same space.

MR. RAATZ: Continue.

We're right about here, Broadway Boulevard.

We have Key Observation Point No. 8, the current condition, the existing transmission structure, the foreground and background.

And the simulated condition. This will become double-circuit.

We continue west in the existing corridor. In this location, the corridor is centered on the centerline of the alignment.

Once again, the blue polyline is the East Loop Substation parcel. And, once again, we'll be utilizing the open position on the existing lattice structures, so

we won't have to build new structures within the wash.

This concludes Alternative B2 tour, the preferred route.

CHMN. CHENAL: All right. Now I'd like just to play it from front to back. But before we do that, I'd like to hear again the reason the preferred route was selected over C1.

We know that there were some homeowners that spoke last night that were in the area near the jog on the preferred route who spoke of -- you know, they had concerns. And I can't remember exactly where, but there were also some other people that spoke.

But in looking at the aerial, the flyover, again this time, it did seem as though there was much less residential density using the Pantano Wash C1 route.

And so before we play that again, if you could have someone explain, if the applicant could have someone explain -- I know they had a slide on it and there was testimony about it, but just to maybe get some of the key points why the preferred B2 route was selected, which does have the residential and it does impact with the corridor west of it, why that was preferred over C1 that goes through Pantano Wash for part of it.

MR. DERSTINE: And I think Ms. Darling can speak to that issue.

I'll just note that if you're looking at comparing the preferred -- and I think you correctly pointed out, Mr. Chairman, where those comments came from last night. They were largely on B2, Pantano Road. I don't think we heard anyone from residents along Kolb.

But you still have -- we did? One resident on Kolb.

You still have -- by using the Pantano Wash route, C1, you're still going to have the line in close either on Kolb or on Pantano. And so you do get over to the river on 22nd and use Pantano Wash, but you've got very much the same issues on those first legs of all three of those routes, where we're having to build the line on existing roads, Kolb and Pantano, where there are existing lines, but we don't have a lot of room.

I think Ms. Darling will indicate why we landed on B2 as the preferred, but I think it lands more squarely on the point that she made in response to Member Noland, is that there is more room on Pantano than there is on Kolb.

Ms. Darling.

MS. DARLING: So the answer to your question kind of builds throughout the course of testimony as we go through the alternatives analysis and the stakeholder concerns and the resource studies and all of those kinds

of things.

But I will go ahead and summarize now, but it may not have a lot of meat.

CHMN. CHENAL: You know, we don't have to, because you're going to get into that, and we don't need to jump the gun. I'm happy to wait. And it is rather obvious that the problems of the Kolb Road present itself in C1.

It did occur to me just now, just when I'm looking at it, whether consideration was given to coming up Pantano but then branching off through Pantano Wash, which does avoid some of the residential north of that point. I'm just curious if any consideration was given to that.

MS. DARLING: No. I don't think that was one of the preliminary alternatives.

CHMN. CHENAL: It's not before us. Just curious.

MS. DARLING: I was wondering if we could point out on simulation 8 to Member Noland, since she wasn't on the tour, the configuration of the existing transmission line pole in comparison to what the new pole would look like because that might help explain why I believe that we can stay within the franchise agreement on Pantano as opposed to Kolb.

CHMN. CHENAL: Sure. Is that part of the flyover?

MS. DARLING: Yeah. It was simulation 8. We just looked at it at the end of the flyover.

CHMN. CHENAL: Okay.

MS. DARLING: We can back up to it.

MR. DERSTINE: We can pause it.

CHMN. CHENAL: Let's pause it. I'd like to see it from front to back, just see it one more time quickly. We can pause it then at that point for Key Observation Point 8.

MS. DARLING: Okay. So go ahead.

MR. DERSTINE: And I think that -- Mr. Dubberly notes to me there are pauses built in to the presentation, so it will run. He's not pausing it, but they're built in to part of the video.

CHMN. CHENAL: Thanks.

(Google Earth Flyover video shown.)

CHMN. CHENAL: Member Noland.

MEMBER NOLAND: Can we stop there for a minute. And this kind of, I think, pertains to your question. Could you show us on this map where Pantano and 22nd and Pantano Wash all intersect? Is that up at point No. 2? That is --

MR. RAATZ: Yes. If you look at the map on the

right-hand side, that is the location that we're seeing of the screen on the left-hand side.

So Pantano continues on this -- just north here and the Pantano Wash, then.

MEMBER NOLAND: So I'm just piggybacking on the Chairman's question of why you didn't consider going over from the Pantano alignment into the Pantano Wash?

MR. RAATZ: I do know one of the considerations is the existing Pantano line is further removed from the Pantano Wash alignment. It would require spanning Pantano and heading in the direction of the Pantano Wash.

MEMBER NOLAND: Okay.

MR. BECK: Mr. Chairman, Member Noland, maybe just to add to that, for the portion -- if we were already coming up Pantano Road with our alignment, where we've got the bulk of the rebuild is being done along Pantano. And when we get to where we could peel off and go up the Pantano Wash, I think our thought process -- it's not probably qualitatively put in the report -- was that it didn't make sense to start encumbering something that doesn't already have a line when we have an existing line and we're only traveling for a relatively short distance to finish up to get to East Loop. And I think that was our thought process in creating our alternative routes. We probably did not put that specifically in

writing in the report.

CHMN. CHENAL: Let's keep flying.

(Continuation of Google Earth Flyover video.)

MR. RAATZ: This is where Ms. Darling wanted me to pause.

So as you can see, the existing transmission structure, you can see that it has arms overhanging and then there's insulators hanging down from those arms. These arms are approximately 10 feet in length.

And when we go to the simulated condition, you'll see that we're using -- well, it's hard to see here -- post insulators, which are approximately 5 feet in length. It's also shown on your placemat in front of you. But the post insulators will reduce the amount of aerial overhang versus the arm by approximately 5 feet. So the likelihood that we would require an aerial easement would be reduced.

(Continuation of Google Earth flyover video.)

CHMN. CHENAL: All right. Thank you.

Mr. Raatz, question: Look at the screen on the right. Are there existing lines along the last northern segment of B2?

MR. RAATZ: Yes, there are.

CHMN. CHENAL: And to Mr. Beck's point, there are no lines in the Pantano Wash?

MR. RAATZ: That is correct.

CHMN. CHENAL: Does the Committee have any questions about the flyover?

(No response.)

CHMN. CHENAL: I think it was very helpful to have us see that again, and I think it puts the perspective on what we saw this morning. So I think it was very helpful to see that.

I guess -- what would be the next part of the presentation here of the case?

MR. DERSTINE: The next chapter is entitled Project Development & Considerations.

I'll use -- primarily, we'll start with Ms. Darling and then with a short couple questions for her to talk about her design philosophy and how that was applied in this case.

And then Mr. Beck is going to discuss some of the initial development hurdles in getting across the Davis-Monthan Air Force Base.

And then Mr. Raatz will touch on some of the additional design considerations that went into the project.

And then we move to alternative route analysis.

So I think that first chapter I could do in 15, 20 minutes. But we're at 2:30. So however you want to

handle the break.

It looks like we have some sort of extravaganza sitting out in these chafing dishes, so...

CHMN. CHENAL: Let's take about a five-minute break, and we'll take another longer break later between then and 5.

Thanks.

(A recess was taken from 2:29 p.m. to 2:43 p.m.)

CHMN. CHENAL: Someone said, So much for the five-minute break, but let the record reflect that there was a smorgasbord of pretzels and sliders and other goodies back there, and it was just too irresistible.

So now I guess we're going to go back to the panel then, Mr. Derstine, Ms. DeCorse.

MR. DERSTINE: Yes. I'll turn my mic on. Chris is scowling at me over there.

This next section is headed Project Development & Considerations.

Q. BY MR. DERSTINE: Ms. Darling, I'd like to start with you here because I think it ties in to some of the things we were talking about on the flyover and why we picked the routes that we picked.

Can you talk through TEP's general philosophy, its approach to projects like this, and then how that

philosophy was applied here for this case.

A. (BY MS. DARLING) Yes.

So TEP's design philosophy is to minimize impacts to the extent possible on both built and natural environment using existing corridors such as road right-of-way as well as existing infrastructures such as our existing facilities; in this case, the 138kV and 46kV transmission lines.

We determine potential impacts through an engineering and constructability assessment as well as the different studies that we do during the alternatives analysis and public outreach and stakeholder coordination.

Q. And I gather, you know, one of the themes that we've seen in terms of looking at the routes, at least the three alternatives from Patriot to East Loop, are the effort to utilize existing transmission corridors wherever possible and to collocate existing either 46 or 138kV lines onto the new project so that we are minimizing the amount of impact from this new project?

A. (BY MS. DARLING) Correct.

Q. But there are times where we're not able to do that. And, I guess, in those instances, the efforts to minimize impacts, those are the things that you're going to talk about more in terms of the biological and the

other evaluations, the other -- how we employ the effort to reduce the overall impact of any project, whether we can collocate it with an existing line or not?

A. (BY MS. DARLING) Right. the alternatives analysis is kind of what guides us to the final -- you know, the alternatives that we present in the application. But it's also the public and the stakeholder participation.

So in this case, we have two alternatives that are more leaning towards the built environment and one that's leaning more towards the natural environment, so it gives us options.

Q. And you're going to cover more in detail those considerations and that process, the input you got from the public and stakeholders through your outreach, as well as the alternative analysis in terms of looking at early links and all that sort of thing with Ms. DeCorse here in a bit this afternoon; right?

A. (BY MS. DARLING) Yes.

Q. Mr. Beck, let me turn to you.

One of the early development hurdles was to get through the Davis-Monthan Air Force Base on Alternative 1. That line, getting from Irvington to push up north to the Patriot Substation, requires that we go right through the Davis-Monthan base.

Mr. Raatz has talked about the DOD directive for energy resiliency, but it wasn't necessarily the case that the base was entirely on board with supporting this project. And you had to do some early work to get through that; is that right?

A. (BY MR. BECK) Yes, that is correct.

In fact, again, just to reiterate, the Davis-Monthan -- the Department of Defense directive and then Davis-Monthan's response to that with their flight plan was something that would allow us or support us in getting across the base with a line that we had needs for for our TEP customers over and above just the base.

So this was an opportunity, and that's why we started having discussions with the Air Force. And we thought we had agreement with the Air Force until we found out that there's kind of two components to the Air Force on the base.

We had agreement from one part, the Davis-Monthan Air Force Command. That's probably not exactly the right title. But we didn't have agreement from the AMARG group, or the Aerospace Maintenance and Regeneration Group, which I mentioned yesterday.

So in response to the concerns from AMARG, we had another meeting with the base personnel, and we had a PowerPoint slide. So I'm just going to step through that

to give you a little bit of background on that.

Q. And the slide that's shown on the right screen there, Mr. Beck, that is a new exhibit that we've marked as TEP-16 we handed out. It wasn't included in our original exhibit filing, but it was handed out yesterday, and it is on the iPad as well; is that right?

A. (BY MR. BECK) That is correct.

Q. And this, what's been marked as TEP-16, explain to us what that is.

A. (BY MR. BECK) So, again, this is the presentation package that was given in a meeting with Davis-Monthan personnel at the base as well as the AMARG group within the Air Force structure.

And just to put a little bit of context around that, the acronyms at the bottom represent the various parties that were there. So AMARG, again, is the Aerospace Maintenance and Regeneration Group, which is a one-of-a-kind specialty facility within the Air Force. And they're actually the first ever FAA equivalent military repair station, which was interesting to learn.

And they have an internal title of America's National Level Air Power Reservoir because of all the planes and equipment that they carry onsite.

CHMN. CHENAL: Member Noland.

MEMBER NOLAND: Mr. Beck, is that what we refer

to as the Boneyard?

MR. BECK: Yes, Member Noland. Affectionately, we would refer to it as the Boneyard, but they actually have a true name with their organization.

MEMBER NOLAND: But if you're from Tucson for any length of time, we've called it the Boneyard for 40 years.

MR. BECK: That is correct, and I think I may have used that name yesterday once or twice, yes.

The facility encompasses approximately 2,600 acres on the base and has a 662-member workforce. And they manage $33 billion in assets. They reclaim and ship parts worldwide. And according to their claim, they think they may be the largest lumber user in the Southwest, which I found very interesting. And that's strictly from the crating activity that goes on to send large parts around the world.

So their mission is very specific and requires 24-hour turnaround when they get a parts request. And so that's why any interference of our line to their activity is very near and dear to them.

The other entity named up there, the DM CE, is the 355th Civil Engineering Squadron on the base. So their personnel were there. And then we had TEP representation.

So just stepping through the slide show -- okay. Next slide.

So you've seen -- these are the same letters that were in other slides, but we were reviewing with them the resiliency goals of the Air Force in general, how TEP currently serves them, our proposed line.

And then we were trying to finalize DM support across the board for our project. And so we're going to get into the specifics of the project and some timing issues.

So we reminded them that the Air Force, in general, has their objectives, one of which is the important by fiscal year '25, eliminate 20 percent of the single points of failure.

On the right-hand side, you can see a couple of objectives in the DM Development Plan. This is their plan.

Today they are served through the 46kV system through a lone transformer, and it acts as a single point of failure for them. And they had a preference to get a second transformer.

And then they wanted to establish a second point of entry for electrical power to improve their system reliability. So in their mind at the time, they were thinking another 46kV circuit coming onto the base.

So this shows again how the base is served. And there's -- two 46kV lines actually come onto that site, but only one is active at any given time. If one fails, we have to switch over to the other. So there is an outage involved in that process. They're not both live at the same time.

It's not how we operate our 46kV system, unlike our 138, which we've talked about, is looped and would be fed from both directions at all times.

So one of the things we shared with the base personnel was the performance of the circuit or circuits that serve the base at the 46kV level. And you can see we gave them from 2013 through 2018. And the target of the Air Force is what they call four 9s, .9999 percent reliability.

And you can see we were real close to that but didn't quite make it in those middle years. We were at 9997, 9998, 9978. And so we just gave them that piece of information.

So we talked further with them about our plan for phasing in responses to their needs. And one of them was 138kV line, new substation. It will have dual transformers, resolves the issue they have with one transformer, and also gives them two feeds two different directions. That would be what we call Phase I and hits

their fiscal year '25 target right up front. In fact, it goes above and beyond that.

And then we talked with them, we have a longer-term interest in working with them, partnering with them on things such as -- well, we call it grid outage response. But it's -- you know, one opportunity would be to put some storage and maybe place it right on our substation site that we're acquiring that would serve both TEP needs but also directly serve some DM needs in the future, and we could partner with them on that.

We just went over the alignments in general.

One of the things I didn't mention -- could we go back. Nope, go ahead. Sorry. Go forward.

No, go to the map. Sorry.

So one of the things I didn't mention is that where the 46kV is today, it's mid base. I mentioned that yesterday, the fact that we would get our substation off base and have control of the fencing, the gates, and our access to the site. But it's 2 miles away from the existing 46kV substation.

So one of the things that they're contributing towards the project is they are going to rebuild that 46kV system on base to get it to the new substation. So they are contributing dollars towards the rebuild of that project that goes towards the overall project activity.

CHMN. CHENAL: Mr. Beck, quick question.

If we could go back to the map. You said you thought you had an arrangement or a location for the line, but then you didn't. But where was that line going to be? And I assume it's different than what we've been seeing as part of the application.

MR. BECK: No. The agreement in general was along Kolb Road. So we had agreement from the base itself that we could build across Kolb Road. I have a couple slides that will talk to some of the issues specific to AMARG and why they were not on board at the time.

CHMN. CHENAL: But they eventually got on board?

MR. BECK: Yes. After the result of this, they got on board.

A little piece of this is that the land that we will use for the substation site is actually AMARG-controlled land as opposed to the general Air Force-controlled land.

And so the main part of the base agreed to exchange a piece of land with AMARG to give them that equivalent land area back at another location on the base so that they don't lose capability to store planes.

So to give them a representation of the

reliability aspect of 138kV, we gave them statistics from one of the lines that's not too far from the base. It's 22nd to East Loop line.

And you can see for that same time period, we were at 1.0 on the 9s measurability. So we definitely beat their liability needs. Again, that's not a guarantee we'll have that constantly throughout the time, but it's much better than 46 was.

So here is what we were showing to the AMARG group specifically, was the portion of the alignment along Kolb Road.

And this is the southern end of the base moving towards the northern end of the base. Substation site is that little rectangle there. And we showed the line on the east side of Kolb up to Irvington, crossing over, and then on the west side of Kolb to the project substation site.

So they talked about and raised issues of two things: One was this bridge crossing, and the other was proximity of our line to what they call their tow road. And that tow road doesn't show up real well on these particular diagrams; but adjacent to and parallel with Kolb on both sides, there is a tow road that they use to haul their planes in and out of the storage area.

They wanted a 250-foot setback from the

centerline of their tow path, and then they wanted the 90-foot clearance over that bridge crossing. And one of their big concerns was that, should our line fall over -- or a pole, at least, get -- fall over, that would it impact either their tow path and, more importantly, the bridge itself. And I mentioned, they have a 24-hour turnaround requirement for a parts request. It's a mandate internal to them.

And so they get a call for a part for a plane, and that plane could be way over on the east side of Kolb Road. And to some degree, they'll haul the whole plane across that bridge, take it to their disassembly location, pull out whatever parts are needed, crate them up and ship them, and they have that 24-hour turnaround.

So they didn't want us interfering with their ability to carry those planes across the bridge or to tow planes along that tow path.

There's the clearance diagram, basically. That's over that bridge crossing.

So we showed them how, with 140-foot-tall structures on either side of that crossing and using a 509-foot span, which would worked for the crossing, we were providing that 90-foot clearance. We gave them a description of structures, basically, the things you've been hearing about here.

We presented a Google Flyover, which -- I'm going to wait one slide to do that, because it will show you basically what we showed them. It's slightly different than our route mapping.

We talked about the CEC process and our time frame for filing. This was back in, I believe, June of last year. You see we did anticipate our January filing date, which we pretty much met. And then we were anticipating hearings in February, which worked out. And then we'll see whether it goes to open meeting in more likely April than March. But that was just an overview for Air Force personnel.

And that was kind of the extent of that discussion. But, as I said, we did have a Google, which we can get to.

CHMN. CHENAL: Member Woodall.

MEMBER WOODALL: Mr. Beck, were you involved in these negotiations and discussions?

MR. BECK: Yes. In fact, I was at this presentation.

MEMBER WOODALL: This is a message to TEP. I recommend that you give Mr. Beck a gold watch when he retires, because what he has accomplished in getting this kind of collaboration and cooperation is, in my view, miraculous. I've never heard of there being such a

collaborative, cooperative engagement with these aspects of the federal government.

So congratulations to you, Mr. Beck.

MR. BECK: Thank you.

So, Patrick, if we could bring up the flyover.

So we did our -- this Google Flyover was done live in the meeting, where we actually did it and showed them live. So we took that and made it a canned presentation. And we actually used it within -- internally for our Fortis parent company as part of a presentation to our management, so this one actually has a soundtrack to it.

MR. DERSTINE: You're saying this will bring us out of the pretzel coma?

A. (BY MR. BECK) I hope so. And you'll see a little bit of the Boneyard while we're at it.

(Google Earth Flyover video shown.)

MR. BECK: Patrick, when we get to Kolb, maybe we can pause it.

It is amazing the variety of aircraft they have out there and how neatly stored all of their equipment is.

CHMN. CHENAL: How come there's music with that, Mr. Beck?

MR. BECK: As I said, it was for management, so

it got prettied up a little bit more.

Maybe just a little further where we can see the tow path.

So this is kind of the southern end of the base as we're moving north.

Here's actually one of the tow paths here. Right there would be good.

So this is the bridge crossing where they bring the planes from one side to the other. As you saw this morning, Kolb Road is depressed. I don't know if you noticed the bridge, but that bridge was interesting in that their fencing is straight out from the bridge deck. It looks like it's laying down. That's the way they did it for security.

But this tow path here was critical to them. So when we first met with them or when we met with them this time, we were planning to cross over Kolb from the east side to the west side just north of that bridge crossing there.

And they said, No, we want it moved further north.

Let's go a little further.

(Continuation of Google Earth Flyover video.)

MR. BECK: Maybe pause it there for a minute.

As you'll notice, there's some actual

hard-shell-side buildings here that is one reason to be on the east side versus the west side, just the proximity.

(Continuation of Google Earth Flyover video.)

MR. BECK: If you could pause there. It's a little bit hard to see, but right there is the crossing. So when we put this actual flyover together, we had moved that crossing north based on their input. We went as close to this residential neighborhood as we could and stayed on that east side and then crossed over. And then we made sure that there would not be any interference with this tow path.

As we come up here, you'll see the outline of the substation area and the property that we'll be obtaining. And all of those planes will get relocated to another part of the storage area.

(Continuation of Google Earth Flyover video.)

MR. BECK: That is not, of course, the substation, but it's just a representation of a construction time lapse.

(Continuation of Google Earth Flyover video.)

MR. BECK: This is the 46 line that will be -- that goes to their existing substation that needs to be part of the project.

And just to the upper left corner is the runway

or the facilities for the base itself.

So that's just an indication of some of the effort we had to go through with the Air Force to get -- even within the Air Force, get the left hand and the right hand together in agreement.

And it was interesting that the AMARG organization definitely has a different interest and different thoughts than the Air Force proper. But in the end, we were able to come together.

And, in fact, right after the presentation to the AMARG group, the commander signed the letter that was transferring land from one to the other with a map that kind of represented the routing.

Q. BY MR. DERSTINE: Thank you.

Mr. Raatz, let's turn to you for a minute in terms of still covering the design and considerations for the project.

Certainly, one of the design considerations was this bridge crossing allowing AMARG to continue to transport its planes and aircraft over to be dismantled. Mr. Beck covered some of that, but I think you have -- well, you want to start with a number of -- the Raptor Ridge, and then you're going to talk a little more about the bridge and then some of the other -- the Pima Air & Space Museum and additional design considerations that

went into the project. So why don't you walk us through that.

A. (BY MR. RAATZ) Sure. Some of the design considerations that were unique to this project, the first was -- that we encountered was the planned Raptor Ridge solar facility. This kind of came after the thought process -- later on in the thought process of the project.

It's a planned 10-megawatt solar facility when fully built out. It will be supported on our 46kV system.

And so when we were first looking at Alternative 1, as seen along here, the common corridor, this wasn't considered. So we found out about this later on in the project. And so in order to minimize the amount of structures that would be required, we took advantage of collocating the 46 on the same structures with the 138.

So another one of the design considerations that Mr. Beck just spoke to was the Davis-Monthan Air Force Base bridge crossing. This connects the east side and west side of Davis-Monthan Air Force Base.

And we had to consider the largest plane on Davis-Monthan Air Force Base, and some of the design criteria were provided to our engineers. The plane

itself was a C-5. And so the height of the tail -- the highest point of the plane is 65 feet. And the wingspan is 228 feet -- or, excuse me, 222.8 feet. And the span of the crossing -- this is a little different than what Mr. Beck had just presented, is 518 feet, 250 feet either side of the centerline of the bridge crossing. And the height of the structures spanning the crossing are 142 feet, allowing for a 90-foot clearance above the tail at the crossing.

And another design consideration is the Pima Air & Space Museum. One of the original segments brought forth one along Valencia Road. And in discussions with Pima Air & Space Museum, they requested that we remove this segment from consideration. One of the design constraints in this area is the connection from Davis-Monthan Air Force Base to the Pima Air & Space Museum. This is a pathway that they transport planes from Davis-Monthan Air Force Base to the Pima Air & Space Museum. And we had a circuit -- segment went right through here.

We had a height restriction which limited the height of the poles that could be placed in here. So if this segment were brought forward, we would have to -- and approved, an outage would have to be taken out on this segment for Alternative 1 to allow for crossing of

the planes from Davis-Monthan Air Force Base to the Pima Air & Space Museum.

Q. So to make sure I understand and the Committee understands, what you're describing, there was a variation of Alternative 1 that was considered and made it fairly far through the process. But when you were meeting with Pima Air & Space Museum and other stakeholders -- and I think Ms. Darling will get into this a bit later -- there was enough issues with that variation of Alternative 1 such that that variation was dropped; is that right?

A. (BY MR. RAATZ) Yes, that's correct.

Q. Okay.

A. (BY MR. RAATZ) So, lastly, the other design considerations was our existing system.

We've got areas along this, as I testified to yesterday, where we will be collocating existing 46 if Alternative A and Alternative C1 is approved. And there's also areas where we would be collocating an existing 138 transmission line with the proposed line segments, Alternative A and Alternative B2.

Q. Does that cover the various design and development considerations that we thought was important for the Committee to understand?

A. (BY MR. RAATZ) Yes, it does.

MR. DERSTINE: I think at this stage, I'm going to turn it over to -- is there a question?

CHMN. CHENAL: Just to make sure I am understanding correctly.

So Alternative A and C1, north of Patriot, there's existing 48, or at least part of that segment?

MR. RAATZ: That's correct.

CHMN. CHENAL: And then on Pantano north of Escalante, that has existing 138; is that correct?

MR. RAATZ: That is correct.

CHMN. CHENAL: Thank you.

MR. DERSTINE: Next section will be -- I'll turn over to Ms. DeCorse on alternative route analysis.

MS. DECORSE: All right.

EDMOND BECK, ERIC RAATZ, and RENEE DARLING, called as witnesses on behalf of Applicant, having been previously duly sworn, en masse, by the Chairman, were examined and testified as follows:

DIRECT EXAMINATION

BY MS. DECORSE:

Q. So, Ms. Darling, that brings us to the alternative route analysis conducted.

Can you explain that analysis and the

methodology TEP used to develop the three alternative routes?

A. (BY MS. DARLING) Yes. I'm doing my own slides. Sorry.

So TEP's methodology in its alternative route development is to use the design philosophy that I discussed earlier in my testimony and mesh that with the criteria that the Line Siting Committee is required to consider in the deliberation of the project in determination of which alternative you're going to allow us to carry forward. And we support that with data collection and analysis of that data in relationship to those criteria and our philosophy.

So we initially -- is there a study area? The study area map with the -- okay. Sorry. We've got too many slides.

So we initially developed a preliminary study area, which is the more open hatching that you see on the left side of the study area going from Irvington to Port to Patriot to East Loop, which was a very direct route. And within that, we had these preliminary link segments that you see on the right screen.

So that's what we started with. We developed it internally. We took that out to the public and to the stakeholders, and we also did a preliminary engineering

and constructability assessment of all those links that are shown in the table on the right.

And this analysis, the report itself is Exhibit B-1 in the application. So the full report with all the details, should you want to fall asleep quickly tonight, is available to you.

After that, the first round of outreach and the initial EC assessment based on both the outreach, the comments from the public, and the study itself, the constructability assessment, we expanded the study area to capture the existing 138kV along Pantano Road, which we had not initially done. And so that it pushed out -- we also expanded the potential --

Could you advance the right slide. Sorry.

So we also examined the potential use of the Pantano Wash down to Golf Links. So right now, you know, we get into the C1 corridor at 22nd. There was a C2 that went down to Golf Links.

So you can see going -- can you go back to the first -- yes. All of the yellow-shaded links in the table are links that were removed following the preliminary link segment. And then these are all links highlighted that were added following the first round of outreach.

Again, this is based on public comment, based

on stakeholder coordination, and based on our own internal engineering and constructability assessment. And it's all detailed in the report.

Q. So, Ms. Darling, before you continue --

A. (BY MS. DARLING) Yes.

Q. -- can you use your laser pointer, or maybe it's -- I'll just do it if it works -- where you add -- if you could just show on the map --

A. (BY MS. DARLING) Sure.

Q. -- which ones were added and removed.

A. (BY MS. DARLING) Can you go back to the -- So the majority of the links that were removed were down here south of what is now the common route. It was where we had the option to get further away from the DM runway and down along I-10. And the reason was at the time we initially went out, we had not done a lot of coordination with DM yet. We didn't know what our restrictions were that close to the airfield. And so we wanted to have as many options as possible.

Q. Thank you.

A. (BY MS. DARLING) And then if we go back to the final revised.

So here, we added -- as I said, we'd added this option to get into Pantano Wash earlier. And then we added the whole Pantano alignment where the existing

138kV line is. That was formerly just -- not very good at this advancing stuff -- that was originally the study area boundary in the preliminary -- right here. This one is Pantano Road.

So we took the revised link segments that you see on the right screen, and we went out again in outreach -- I'm sorry. I'm mistaken.

We did -- on the revised link segment, we did a revised engineering constructability assessment and internally put these links into multiple routes that we then presented in Outreach 2.

So we had two alternatives from Irvington Substation to Patriot Substation, which is the -- Alternative 1 was the common route now that we have. And we had an Alternative 2, which was the one that went along Valencia Road north of Pima Air & Space Museum, which is the one that was just explained why it was removed.

So because those were the only two alternatives that we ended up with after we formed our internal preliminary alternatives, that's why we now only have one common route. So it's kind of the process of we had all these links that you see on the left. Most of them got removed based on public comment because of them being nearer to residential areas and because, in the EC

assessment, we determined we could get closer to the airfield than we initially thought.

So we were able -- so that's why we only formed the two alternatives, the Alternative 1 and Alternative 2. But then, through additional coordination in the second round of outreach, we determined that that one needed to be removed.

So that's how we came to only have a common route from Irvington to Patriot.

And then --

Q. So then are -- if you could walk us through how you narrowed it down from seven alternatives. You just mentioned three?

A. (BY MS. DARLING) So we just went to five because we had the common route. And then north of Patriot, we had A, we had B1, B2, C1, and C2. So those were narrowed down in the second round of outreach. So the public was presented with Alternative 1, Alternative 2, Alternative A, B1, B2, C1, and C2, both the public and the stakeholders.

And the additional -- another round of engineering and constructability assessment was looked at at all those combined routes. And when we came out the other side of that outreach is when we narrowed it down to the three you see in the application and that are

presented now.

So the whole process of why we did that is in the report. I'd be happy to go into more detail or not. It's up to you.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Member Noland.

MEMBER NOLAND: Mr. Chairman, Ms. Darling, so then there really was a route along the Pantano Wash that was considered that transected 22nd? Was that 22nd?

MS. DARLING: Well, it didn't. It actually -- let me get my pointer here.

It came across -- where's Golf Links? It was basically -- there was a segment on Escalante, and then there was the segment on Pantano. But here at Golf Links, we did have a link that brought us over to the Pantano Wash at Golf Links and brought us up through the Pantano Wash all the way. It didn't actually -- because the wash doesn't quite touch 22nd Street, but it goes by it.

MEMBER NOLAND: Well, I'm just saying -- my question earlier was: Did you look at or why didn't you look at doing that crossover into the Pantano Wash?

MS. DARLING: We did, but further south at Golf Links instead of that 22nd. So we did look at it, but it ended up being -- well, if we look at the -- can you go

to the preliminary routes where it shows C2?

MEMBER NOLAND: Hold on just a second. I want to be sure I understand that we're talking the same thing.

Can you take it back to the previous -- there.

Here's where you came across and straight up through the Pantano Wash --

MS. DARLING: Right.

MEMBER NOLAND: -- it looks like.

MS. DARLING: Right.

MEMBER NOLAND: So I guess I'm confused now. I'm sorry. I thought that Mr. Beck said that you didn't look at that, but it looks like you did. And why was that taken out of the whole scheme of things? Was it cost?

MS. DARLING: We looked at them as -- we looked at them as individual segments. I guess what probably Mr. Beck meant is we never combined that into an alternative, maybe. I don't want to speak for him, but I think that's maybe what -- but we did look at individual segments that, had we ended up combining them, may have formed -- I think what you're saying -- is which stayed in the wash all the way through.

MEMBER NOLAND: But you did individual segments all the way up through the Pantano Wash --

MS. DARLING: Yes.

MEMBER NOLAND: -- from this area all the way up through to the East Loop area?

MS. DARLING: That is correct.

Can you go to the actual alternatives, the five. There.

So you can see -- I can't see, but --

MEMBER NOLAND: This is what I'm talking about right here.

MS. DARLING: That's C2, which was removed and wasn't included in the application.

MEMBER NOLAND: And can you specifically tell us why that was excluded and not included in the application?

MS. DARLING: Yes. So when we did the scoring of all of the alternatives, A, B1, and B2 all scored a 25 out of 33 under the 11 criteria that we look at. We're kind of jumping a little bit ahead because I haven't gone through what the criteria were or how we scored, but -- and C2 scored the lowest of all of the six. So it was A, B -- five. Sorry. Scored the lowest of the five alternatives that we looked at. So that's why it didn't make it into the final application.

MEMBER NOLAND: Can you get into that when you do get down to the criteria --

MS. DARLING: Yeah. I'm almost there.

MEMBER NOLAND: Okay. Thank you.

MS. DARLING: Okay. I've got numbers to my notes here.

All right. So the criteria that we look at are the presence/absence of an existing corridor; existing and planned land use; residential development; sensitive receptors; room for separation from existing utilities, such as gas, water, ourselves; the viewshed analysis; eligible cultural resources; special status species; 100-year floodplain; the ability to construct and maintain the line; and cost.

So each of those 11 criteria are looked at and each of the five alternatives. And they're scored a 1 for a major effect, a 2 for a moderate effect, and a 3 for no effect in each of those 11 criteria. And they're compared against each other, so A compared against B1 and compared against B2 or A against C1 or C2. And they get assigned a score, which is in the report.

Do you want me to give you the page number?

MEMBER NOLAND: No.

MS. DARLING: Okay.

MEMBER NOLAND: What I'd like you to tell me is why it scored poorly compared to the rest. Was it because it's in a floodplain? Was -- because I would

score it higher because it wasn't impacting current neighborhoods and current houses.

MS. DARLING: Right.

MEMBER NOLAND: So it depends on your criteria as compared to maybe the public's criteria or whatever.

MS. DARLING: Well, residential use is a criteria. So, obviously, in that -- under that criteria, it would score better than A or B1 or B2.

But it did score -- and I'm trying to get to the actual table so that I can give you real numbers.

So I'm looking at Exhibit Page 37 if anybody wants to know where I'm at.

CHMN. CHENAL: Which exhibit?

MS. DARLING: I'm sorry, the application, exhibit page 37 of the application.

CHMN. CHENAL: Give us all a moment to get there.

MEMBER NOLAND: Could you put it up on the board?

MS. DARLING: Can we?

P-Dub can do anything. We just have to give him a minute.

Maybe -- before we get into the scores, I'll just make one more point because I'm sure it will be asked is: A, B1, and B2 all scored -- they tied with a

score of 25 out of 33.

The reason those three weren't the -- put into the application and no Cs were put in the application is that B1 and B2 are basically identical except for that small segment of the line that goes through the Tucson Meadows neighborhood that we wanted to reroute outside of the neighborhood. So we chose to leave B1 out of the application, which is the one that went straight through the Tucson Meadows neighborhood.

Oh, wow. I have a correction.

CHMN. CHENAL: Can I ask a question here, Ms. Darling, before we go further?

MS. DARLING: Yes.

CHMN. CHENAL: I'm looking at what I believe to be is exhibit page 37 of the application, and I see a Table 6 with criteria and alternatives. And alternatives refer to Alternatives A, B1, B2, C1, and C1. Should one of those C1s be C2?

MS. DARLING: Mr. Raatz just pointed out the error. And so the last column is C2, yes. So, apparently, we do have a correction to the application.

CHMN. CHENAL: No problem. It's easily understood.

MS. DARLING: So I was saying that -- yes, so B1 was not included in the application, and we included

the next highest scoring alternative, which was C1, which would allow us to look at an alternative that was more impactful maybe on the natural environment than the built environment.

CHMN. CHENAL: So the one that was -- you've narrowed it down. You left off C2 --

MS. DARLING: Right.

CHMN. CHENAL: -- correct? And that's the one that Member Noland was pointing to which kind of goes southeast-northwest through --

MS. DARLING: Through the entire wash.

CHMN. CHENAL: -- the entire wash.

MS. DARLING: Yeah.

CHMN. CHENAL: So maybe you could discuss this now.

MS. DARLING: One factor is we put three alternatives in instead of four alternatives. It's also further from our design philosophy than A and B2 are, which is use existing right-of-way, use existing corridors, use existing infrastructure, but we did include 1. We wanted to have 1 in there even though, in this analysis, it might be a little lower scoring, so it's still there. We just didn't put both of the Cs in, just like we didn't put both of the Bs in. It was a decision that was made for those reasons.

CHMN. CHENAL: So I'm struggling here a little bit. I'm looking at the Table 6 that's on page 37.

MS. DARLING: Yes.

CHMN. CHENAL: And I'm looking at the alternatives, A, B1, B2, C1, and I know that the last column to the far right should be C2.

MS. DARLING: Yes.

CHMN. CHENAL: I look down at the category for criteria No. 3: Residential development adjacent to the corridor.

And I look over at the far right, it's the column that should be C2, and it has a 3 there. I kind of thought when you were giving your scoring that the ones that were the least impactful had the lowest number?

MS. DARLING: No, the highest. Sorry. The least impact, as in no effect, no impact, is a 3, and the worst impact is a 1.

CHMN. CHENAL: Okay.

MS. DARLING: So this means that in relation to how the criteria -- the percentage is used -- so, again, residential use on this whole transmission line, because it's so long and goes through so much industrial and commercial use, are very close together. We have, I think, 7 percent residential use adjacent to C1 and only like 10 percent along B2 and about 11 percent along A out

of the whole 100 percent length of the project. Even though we saw all those residences, it's because the common route is through so much nonresidential use that those percentages end up being so low.

So they're very comparable to each other. But in order to distinguish between the Cs and the Bs and the As, there was that cutoff there at the 10 percent. So the Cs got a 3 because they were less than 10 percent, and the Bs and As got the 2s because they were greater than 10 percent under that one number, residential development.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: It seems to me that these are pretty subjective numbers. And I'm just wondering, who and how did they put a 3 in one column and a 2 in another?

MS. DARLING: It is subjective, and it involves comparing and contrasting one alternative against another. And it's done as a team. And any other team might look at it differently and score it differently. We do our best. We get the actual factual numbers, this percent, that percent, you know. It has this much percent on residential use; this one has this much percent. But then you have to decide as a team, where do you draw that line between the 3 and the 2 and the 1.

It's not a science where it's out there in the textbooks and they tell you, well, when it's 50 percent, make it a 1; and when it's 20 percent, make it a 2. You have to decide. And that's why it's all documented so that you can agree with our subjective decisions or not. But the information is there, and it's how we compared them.

MEMBER HAENICHEN: To come up with all of this matrix here is the thing that's very subjective. But then at the end of the day, you make it unsubjective when you say, The highest number wins.

MS. DARLING: Well, it didn't win. It's all three are there. And the reason we selected the preferred over the other -- or B2 over the other two goes back to our design philosophy and our ability to have room from separation, to have room to construct the project, to use our existing 138kV line for a long period of the project and rebuild it as a double-circuit for the reasons we talked about with the proximity of homes along Kolb Road.

Any of the three can be -- we wouldn't put them in the application if we couldn't build then. But those are the reasons why we selected -- made the decision that we made. And we never based it solely on -- I'm sorry. We never based it solely on the scores. But we have to,

again, draw lines somewhere.

MEMBER HAENICHEN: Let me just ask you, then, from the company's standpoint, is it true that you could do any of these?

MS. DARLING: It's true. We wouldn't have put them in the application if we couldn't build them.

CHMN. CHENAL: Member Riggins.

MEMBER RIGGINS: I just wanted to mention, too, in regards to C2, even though a good portion of it does go into Pantano Wash, that portion along Golf Links, in between Golf Links and 22nd Street, that was an area last night that we received kind of a lot of -- a significant amount of the public comment was from residents in that neighborhood. Am I correct?

MS. DARLING: They were at Pantano and 22nd; right? Yes. So that's along the C1 corridor. I mean, C2 as well, but -- I mean, well, it's on the B2 corridor -- I'm sorry, it's along the B2 corridor, which is our preferred.

MEMBER RIGGINS: Yeah, I was just -- because it does seem like there would be some residential impact.

MS. DARLING: On Golf Links, yes.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: Of these 11 items on the left-hand side of this sheet, which one or more than one

of them would you say would be most impacted by information you got from the public in your outreach efforts? Where did they chime in?

MS. DARLING: No. 3. 2 and 3. I mean, it's basically -- the majority of the comments were about location and specific to the proximity of the line to their homes.

Health concerns are also brought up a lot in public meetings, but those are not one of the criteria specifically looked at.

MEMBER HAENICHEN: And that's really subjective.

MS. DARLING: Exactly.

Q. BY MS. DECORSE: So, Ms. Darling, if I could jump in.

Maybe if you could go fast-forward to -- what are the key considerations the company considered when looking at the preferred? And then we can move backwards from that if we need to.

A. (BY MS. DARLING) So the justification for the preferred?

Q. And I know that the table and the ranking is one of those, but maybe to put it into context how you use that.

A. (BY MS. DARLING) So rank -- can you put the

presentation back up, P-Dub.

So rank is one of the considerations that we look at. And, as I said, you know, two of the alternatives that are in the application scored the same. And that was the Kolb Road and the Pantano Road alternatives.

So the reason that we selected B2 over Kolb Road, which is A, is the ability that we have there to relieve the encroachment upon the existing transmission line at the Tucson Meadows neighborhood.

This says wider right-of-way, but the right-of-way of Kolb and Pantano are both 150 feet. What I meant by "wider right-of-way" is, I guess, availability of the right-of-way that's not developed.

So, as I had mentioned previously, Kolb Road is six lanes. It has a center median, sidewalks, landscaping. And it's developed, basically, to the edges of the right-of-way. There's very little room for even our existing facilities that are there.

Whereas, Pantano Road is four lanes, it does have a center median, but there's more room, and we have an existing transmission line corridor established on that -- in that right-of-way. So it allows -- we're confident that we can build there. We did ask for the wider corridor for incidentals, things that might happen.

But as Eric described -- or Mr. Raatz described, the arms are actually going to be shorter than on the existing line right now.

There's also less conflicting utility uses on Pantano Road than there are on Kolb Road. There's a lot of existing -- there's existing water, sewer, gas, all of those on Kolb. They're also on Pantano. There's just fewer of them on Pantano.

And we felt, in some portions of the project, there was actually less visual impact from the Pantano Road option than the Kolb Road option, mainly, north of 22nd Street.

When we were taking the tour, if you recall, we will have the double 46kV line on the west side of Kolb Road north of 22nd. And then from there, we would be double-circuiting the existing 138kV line on the east side. That's basically putting a double-circuit subtransmission and transmission line from 22nd to Speedway all up Kolb Road, which is, you know, more cluttered, I guess you would say, and because it's also much closer to the road because the road is so built out.

And then the less construction impact again goes to the more built-out road because it's six lanes. We will -- in order to build so close to the pavement, we would be closing lanes down. It's just going to be a lot

tighter, so we're going to have a lot more traffic impacts during construction.

So those were the main reasons why we selected B2 over A.

Q. BY MS. DECORSE: Okay.

CHMN. CHENAL: Member Haenichen has a question.

MEMBER HAENICHEN: Yeah, I finally understood this. The bold numbers on the bottom, 25, 25, 25, 20, 19, are the sum of all the numbers 1 through 11.

MS. DARLING: Yes.

MEMBER HAENICHEN: Yeah. The problem I have with this kind of analysis is that, for example, on 7 -- well, let's take 8. You're considering a 3 there as just as valuable as a 3 in any of the other ones.

MS. DARLING: That is true.

MEMBER HAENICHEN: So how do you decide which of these 11 criteria are the most important?

MS. DARLING: They're not weighted, that's true. They're not weighted. They are equally important in this analysis.

MEMBER HAENICHEN: That's a real problem.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Yes, Member Noland.

MEMBER NOLAND: Could you explain No. 6 and how you can arrive at the viewshed of a 3 on a residential

area as compared to a 1 along the wash area.

MS. DARLING: Because everywhere along A, B1, and B2, it's developed. And there are existing distribution lines or subtransmission or transmission lines or commercial. There's built environment.

And on the wash ones, there aren't -- oh, I see what you're saying.

MEMBER NOLAND: I'm just having real problems with this. And I guess viewshed, I'm thinking viewshed of people looking at lines and new lines and bigger poles.

MS. DARLING: Well, right. But they're already -- the City's light poles. There's the City's traffic interchanges. There's the existing distribution and the transmission. Whereas, on the wash segments, it's a recreational river park trail along the entire alignment of the Pantano Wash that has no facilities on it right now. So that's a greater impact on the viewshed than on the major roads that the other lines would be proposed to be built on. That's the difference, and that's how we came to that conclusion.

MEMBER NOLAND: Well, I think people would agree to disagree on that particular thing.

But I know how TEP feels about building those lines in the wash even though there are many of them in

the Pantano Wash in other areas that have been there through floods and everything else. And we've had this discussion before. So I think this is one we'll agree to disagree on.

MS. DARLING: Okay. And you're right, we do have lines along the Rillito, along the Santa Cruz. And we can build the C1 alternative. We would need a use permit is all. And that's why there's a difference in the land use scoring as well, because it would need a special permit, but it is doable.

Q. BY MS. DECORSE: So, Mr. Beck or Mr. Raatz, if you want to maybe touch on or speak to the technical considerations.

MR. BECK: Yes.

Member Noland, we have had this discussion in the past.

MEMBER NOLAND: Many times.

MR. BECK: And, yes, we do have lots of lines in the washes. And for the most part, most of them stayed up through the floods, but we have lost individual poles in those floods. And the biggest one that comes to my mind was in 1983 where we lost several key poles, and we were on the brink of blacking out the city of Tucson. Our operations people were so afraid just one little glitch would have taken us black, and it was because we

had lost our major 138 lines down the washes.

But, yes, we do build them there. We have built them there. And for the most part, most of them have stayed up through the floods.

MEMBER NOLAND: That was our largest flood, if you remember. I remember it well. I lived on that same wash, and part of the development washed away.

But you have now, I think, more ability if something does happen in one segment to allow for a rerouting of electricity to handle those things until they're repaired; is that correct?

MR. BECK: That's correct. We're beefing up our reliability in our system so that we do have multiple paths. So it's less of an issue than it was in '83. But just for the record, we have lost some poles. But can they be built in the wash? Yes.

MEMBER NOLAND: 37 years ago. Yeah, that was a long time ago.

MR. BECK: Yes.

Q. BY MS. DECORSE: Mr. Beck, can you also speak to the technical considerations around Davis-Monthan Air Force Base. The pole -- I think we've touched on the pole height, but would there be any type of outages required in order to construct that portion of the line?

A. (BY MR. BECK) No. I don't see any special

issues with the wash relative to Davis-Monthan.

Q. Oh, I meant separate and apart, moving on to --

MEMBER NOLAND: Oh, we're off of that?

MS. DECORSE: Yes. Sorry to jump.

MR. BECK: Maybe restate the question.

MS. DARLING: Are you talking about at Pima Air & Space Museum?

Q. BY MS. DECORSE: Yes.

A. (BY MR. BECK) Yes. Relative to the Pima Air and Space Museum, we eliminated those alternatives in front of the air museum because of the issue of the height restrictions from both the FAA as well as DM. We know what the FAA restrictions would be. We had specific discussions with DM. We couldn't put the poles any higher. And at the heights that we would be limited to, it wouldn't allow them to carry planes underneath to get to the air museum without taking the outages on the line and actually somehow raising the line temporarily during that movement of a plane.

CHMN. CHENAL: Member Haenichen has a question.

MEMBER HAENICHEN: I'm still going back to this page, Exhibit Page 37 chart.

And back to the question about reliability and the judgments that it causes you to make.

For example, No. 6, the last two, C1 and C2,

scored much lower than the three previous ones.

It would seem to me, just subjectively, that it's more important that people who are living there all the time and looking at this, that their opinions should rank -- have more weight than this, which is a matter of people driving by and so on. Because it's just -- why should we cause angst to these residents. That's my concern. So I don't know what we can do about it, but it just bothers me.

MS. DARLING: Do you want me to speak to that?

So it's measured by change. That's how it comes to those numbers. So the biggest change is where there's nothing, and you're adding. That's why those got 1s. And then the others, you're -- as I had spoken to before, there's already existing distribution, existing subtransmission, existing transmission, existing light poles, businesses, traffics, interchanges, all of those things along the routes, and that's why they got a 3.

And, again, it's subjective, so it's not -- you know, you don't have to agree, but I'm trying to explain how we scored it and why.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Member Noland.

MEMBER NOLAND: I'm not going to beat this horse to death, but I will make one more comment.

If you took the residential area feelings into account with disruption, construction, so on and so forth, and their ideas of viewshed, the A, B1, B2 would all be at a 1, and C2 would probably be at a 3, and that would bring them all into line almost about the same total amount in making a decision.

And that's how I would look at it if I were a resident in the area as compared to having construction in the wash that is at a lower level, that the poles or whatever type of unit you have to use in the wash are at a lower level and less visible because of the businesses and so on that are along the wash area.

People just aren't going to see them the same. Yes, people will see them that use the wash for recreational purposes. But I use the wash for recreational purposes behind my house, and they never bothered me.

So I'm just saying, it is so subjective. And you're looking at it from one way, and somebody else would look at it from another way. And then you'd be almost even-steven all of the total amounts that you're looking at in making your decision.

That's just my opinion.

MS. DARLING: Okay.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: Just to add to this discussion, if we go down and look at cost of construction, that is where, for example, C2 bombed out. I don't think that's that important because it's going to eventually be paid for by the ratepayers, and the amount -- it would be nice if we knew what the difference numerically is over time. But I wouldn't -- I would give that less weight.

MR. BECK: Member Haenichen, while I understand your point and there's some merit to it, we also do try and keep our customer rates as a key component of our consideration. And the more we add to these projects, the more ultimately goes to customers.

I understand that it gets spread over a lot of customers, so, you know, incrementally, it's a small amount. But this isn't our only project, just as a point.

MEMBER HAENICHEN: I understand your reasoning here, and that's good reasoning.

But it would be nice if you could say to us, Well, if we take the one where C2 scored a 1, how much more is it going to cost the customer? It may only be a few bucks, and then I would say, So what?

MR. BECK: And I understand that position. But just to caution you on the issue that when we come to

these processes for a CEC, we don't have a final design.

And to really get a good handle on what those increments are, we would have to really look at the design on these different alternatives. And if that were the direction in the future that we were asked to go, we can do that, but it adds a lot more manpower on our side and time to develop the projects. But I understand your position relative to that understanding of the cost.

MEMBER HAENICHEN: Yeah, but you -- to get to arrive at these numbers on this chart, you must have selected some set of criteria to come up with a 1, a 2, or a 3 on a particular line.

MR. BECK: That is true. There's a general underlying cost indicator. But it would be hard for us to come forward and say, Here's the number to differentiate between these alternatives at the level of design we've got.

CHMN. CHENAL: I think it would be fun, just as a fun exercise, is to give the Committee the score sheets and let us come up with the numbers, and I think they'd be a little different.

MS. DARLING: We can do that. We'll give you some blanks.

CHMN. CHENAL: That's the nature of subjective, right, analysis; right? I mean, we could all come up

with different numbers.

So not picking on the team, but it -- you know, there were comments made by the public, and there is an alternative that actually was looked at that might have some merit. And so I think that prompts some of the questions.

Member Woodall and then Member Haenichen.

MEMBER WOODALL: So are there other environmental planning entities that follow a similar technique, or did you create this -- is this TEP's and TEP's alone?

MS. DARLING: No, it's not.

MEMBER WOODALL: So it's been used by other -- I think I remember another environmental planning firm using a similar technique. I believe some federal agencies might use a similar technique.

So this is not unique to Tucson Electric Power and how they rank it?

MS. DARLING: No. The process isn't unique, but you do come to a point where you have to use your own subjective opinion of the team.

MEMBER WOODALL: Of course.

MS. DARLING: But the process, the way the criteria are looked at, comes from another place.

MEMBER WOODALL: The other entities also use

"subjective"; is that correct?

MS. DARLING: That's correct.

MEMBER WOODALL: Okay. I just want to make sure this isn't like just TEP running wild.

All right. Thank you.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: One final comment on this, and then I'll be quiet.

You have to realize that some of these things where the numbers 1, 2, and 3 are, are one-off things. And cost is one of them. Other ones are not one-off. The guy is looking out his window every day for the rest of his life at it. So I don't see that embedded in this anywhere.

Q. BY MS. DECORSE: So, Ms. Darling, I have one question: When did you do this analysis in the process? Had we done Outreach 1 and 2?

A. (BY MS. DARLING) So we had done Outreach 1 and 2. This is when we came -- because we presented all of these alternatives, along with 1 and 2, to the public and to our stakeholders, and then we came back.

Q. Okay. So would the considerations with respect to maybe residential development and the public -- theories that the public was concerned about, did the company weigh that in their analysis of these?

A. (BY MS. DARLING) Yes. I mean, that helps inform which -- from the beginning, which links are removed and then which alternatives are more favored over other alternatives. That's all part of it as well.

Q. Okay. And we'll get into that later in the public concerns.

A. (BY MS. DARLING) Right.

CHMN. CHENAL: Just a note for the record that there's a direct relationship between the number of questions that Member Haenichen asks and the lack of cookies.

MS. DECORSE: Are there no cookies?

CHMN. CHENAL: There are no cookies. I'm stating the obvious.

MS. DARLING: I said to have cookies here all the time.

CHMN. CHENAL: Well, now you know what happens if you don't.

MEMBER HAENICHEN: Am I that obvious?

CHMN. CHENAL: On a serious note, are there members of the public who are here to speak for a call to the public?

(No response.)

CHMN. CHENAL: Okay. Because I would be remiss if I didn't ask, and I should have asked earlier, and I

apologize if you were intending to speak.

Okay. Please proceed.

Q. BY MS. DECORSE: So I wanted to follow up on two comments you had said earlier with respect to the ADA sidewalks and the letter -- I believe it -- was it from the City of Tucson?

A. (BY MS. DARLING) Uh-huh.

Q. And was the cost to include those sidewalks in -- is that part of the number that we see on our placemat?

A. (BY MS. DARLING) So for both Kolb Road and Pantano Road, an easement was assumed along the entire route. I think it was a ten-foot easement just for the cost estimate. So the purchase of a ten-foot easement along the -- north of Patriot.

Q. And I believe it was Member Noland that had mentioned also the aerial easement cost. Is that in --

A. (BY MS. DARLING) Right. So it was an easement, whether it be aerial or a sidewalk, was assumed along both just for the purposes of a just-in-case cost estimate.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Member Noland.

MEMBER NOLAND: Quick question. The easement that you're discussing for the sidewalk and so on, is

that with the City of Tucson?

MS. DARLING: Well, yes. So the City of Tucson had commented that anywhere that we placed our facilities in road right-of-way, we had to maintain the existing ADA 4-foot sidewalks or room for them to build them at a future date if they weren't already built because we have the 3-foot circumference on our base of our poles. And they had been having some concerns or issues with some of our installations.

On Kolb Road, certainly, I had spoken to this before, we would -- in order to keep our facilities in the road right-of-way and as far from homes as possible, we would have to purchase an easement from these homeowners for a sidewalk to either be moved or, in the future, built. We wouldn't pay for the sidewalk unless we had to destroy the sidewalk.

MEMBER NOLAND: I really wasn't talking about that.

MS. DARLING: Okay. I'm sorry.

MEMBER NOLAND: Well, you answered part of it.

You don't have to purchase easements from the City of Tucson?

MS. DARLING: We have some portion of our project that crosses City of Tucson-owned land. In those cases when it's outside of a road right-of-way, we would

be purchasing easements from the City of Tucson.

MEMBER NOLAND: Do you have to purchase easements in a wash from the County or City or whosever in control of it?

MS. DARLING: We do, yes.

MEMBER NOLAND: You pay for them?

MS. DARLING: Yes. And we have to also obtain the use permits. And those costs are in the cost of the project that you see.

MEMBER NOLAND: Okay. Thank you.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: Ms. Darling, this is just a technicality, but twice now, you have referred to a 3-foot circumference of the pole. Didn't you mean diameter?

MS. DARLING: Diameter. I'm sorry. Thank you very much.

MEMBER HAENICHEN: That's Pi times ...

MS. DARLING: Yes. Yes. Thank you.

Q. BY MS. DECORSE: And, Ms. Darling, do you know, the City of Tucson, do they have a preference on the alternative? I know we're jumping and you will get to that, but I'm just curious.

A. (BY MS. DARLING) No. If you refer to their letter, they basically said, Just please take these items

into consideration in your selection of the alternatives that you put in the application. And I get into that when we start talking about stakeholder involvement.

MS. DECORSE: Okay. So, timingwise, I think we're now onto a different section, the planning process, or chapters, as Mr. Derstine has referred to them. So we can keep going if you like. I just ...

CHMN. CHENAL: I wonder if we should take a short break.

MS. DECORSE: Whichever you prefer.

CHMN. CHENAL: We can go to 5, so let's take a ten-minute break, and we'll resume.

(A recess was taken from 4:06 p.m. to 4:34 p.m.)

CHMN. CHENAL: Let's go on the record.

And before we begin, I'm going to introduce as -- I'm going to say it's Chairman's Exhibit 1 right now, but I want to give it another number tomorrow. It's going to be a CEC that uses the applicant's CEC with just a few changes and additions for discussion that I have. And I want to pass a copy out to the members of the Committee and to the applicant and to the court reporter.

And as our usual course, when we get into the deliberations, we'll start with this or something close to this, and then we will work our way through the

process. And this will be the second to last exhibit.

And what we work with on the right-hand screen, if you will, will become -- will be the last exhibit. So this will be second to last, and that will be the last. And that last exhibit will become the CEC as soon as it gets voted on.

So I will pass that out now. I'll ask my assistant to get a Word version of it, too, to you. And we'll introduce this into the record.

I'll hand out what's Chairman's Exhibit 1. But I'm going to have my assistant provide the applicant with a Word version. And then tomorrow, that Word version will be -- when it's on the screen, will be -- let's do it a different way. What's the last exhibit that TEP has? Is it 16 or 17?

MS. DECORSE: Currently, it's 17, but we have -- TEP 20 is where we will end up.

CHMN. CHENAL: Okay. Well, then let's make this TEP-21 just for identification. It won't be introduced into evidence.

So what I've handed out is marked TEP-21 just for identification. And just for clarification, that's the CEC that was proposed by the applicant with just a few -- some additional materials for consideration when we start our deliberations.

Not recommending these. This is just for discussion. And then I will have my assistant provide you with a Word version of it.

MS. DECORSE: Excellent.

CHMN. CHENAL: Okay. So does the Committee have any questions before we get back on with the panel?

Member Riggins.

MEMBER RIGGINS: Mr. Chairman, this is more of just a procedural question to you. But with the C2 or any proposed route that's not a part of the notice or the final alternates featured in the application, would this body be able to consider those routes as part of this process, or is there some sort of -- I guess I just am curious as to how we could consider them if they're not one of the three featured routes.

CHMN. CHENAL: I think the answer to that is the following: I think the statutes require that for material changes -- that the Committee can pick routes that are not part of the application.

But I think to do so, the hearing would have to be renoticed because the application does not include, for example, the C2 route. The application proposed only three proposed route, not the C2 route that we have discussed.

So in fairness to the public and the parties of

interest who may have specific objections to that particular route, they would not be here today because that's not part of the application. If we were to vote on it, I think that would be a lack of due process to them. Because if it had been part of the application, they might be here. So we would have to renotice the hearing, I think, in order to consider that other route.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Yes, Member Noland.

MEMBER NOLAND: Well, we have done it differently in other cases. As long as it was in the study area, the original study area, which all of the routes were, we have made changes from a preferred route or any other alternative route to get around certain obstacles or because of certain testimony or whatever else.

So I don't know which is right, but I know we have done that in other cases.

CHMN. CHENAL: And I think, Member Noland, maybe I'm -- if it's a deviation of a route that is being offered that's not material -- and I guess "material" is really the issue here -- I would say that's correct. It's like a variance.

Where it's an entirely new route that's a material change, such as C2, which I know you said it's

in the study area, but it's not one of the three routes that is being proposed by the applicant, that, I think, makes it more problematic.

MEMBER WOODALL: I associate myself with the Chairman's remarks regarding material change. That's my understanding as well.

CHMN. CHENAL: But we haven't had a chance to study it. That's just my understanding, having looked at it previously.

But if we're really going to consider something like that, we're going to have to take a time out and give you an opportunity to change it.

But I think the material change would be the delineation between having to renotice it. And I think -- my belief would be that considering the C2 route would be a material change.

But I don't know if the applicant has views on it. No obligation to put it on the record. I know it's a legal issue.

MR. DERSTINE: I haven't gone back and studied the procedural rules, but my recollection is that if there is a change or an amendment to an application, in this case we're going to consider a new route variation that was not included in the application, I think that's probably a substantial deviation or if it is a

substantial deviation in the routes that were provided and the notice that was given, then I think that requires compliance with the rule. But I'd like an opportunity to go back and look at the rule and see exactly what notice requirements and what options the Committee might have available to it if it wants to consider that.

MEMBER WOODALL: I would recommend that you confer with the Legal Division of the Arizona Corporation Commission because the Line Siting Committee is established by the Commission, and I know that the attorneys over there have opined on similar matters.

MR. DERSTINE: I appreciate that.

CHMN. CHENAL: All right. So let's go back on the record. And I think, Ms. DeCorse, you were going to continue with the panel.

Q. BY MS. DECORSE: All right. So, Ms. Darling, we left off -- now we're onto the planning process.

So before the break, we spent a lot of time talking about the project siting matrix. And we understand the Committee's concerns, and we'll take them into consideration most definitely in the next case.

But for today, were there any other criteria that the company looked at when assessing what routes to bring forward.

A. (BY MS. DARLING) Yes. So we -- following all

the applicable statutory and regulatory criteria in the project area, we identified what studies and analyses we needed to do for the project. And we did so in conjunction with the stakeholder and public outreach in order to identify potential impacts or necessary mitigation measures related to those studies.

So these are the criteria that you guys are all familiar with under A.R.S. 40-360.6, which are the plans of the state, local government, and private entities; fish, wildlife, and plant life; recreation; scenic areas, historic sites and structures, or archeological sites; the total environmental; and any other additional factors, which, in this case, we did an EMS study, and we also did an FAA analysis, which is Federal Aviation Administration analysis.

Q. Before you get into the specific studies, can you give the Committee a general overview of the study area, the environment.

A. (BY MS. DARLING) So you drove -- you know, you did the tour today, and you saw that especially north of Patriot Substation, it's very urban, developed area. It's, for the most part, developed or previously disturbed area except along the Pantano Wash, where there are still pockets of native vegetation.

The topography slopes from the south to the

north, so we go up in elevation a couple hundred feet from one end of the project area to the other.

Q. Okay. so the different studies.

A. (BY MS. DARLING) Right. So the different studies that we conducted were a biological evaluation that looked at federally listed, proposed listed, threatened, and endangered species; as well as general wildlife and vegetation and migratory birds.

And then we also did a cultural resources Class I inventory, a land use analysis, a noise assessment, the EMF study I mentioned, recreation assessment.

We completed visual simulations of the project along different key observation points in the project area and the alternatives analysis that we've already discussed.

Q. So starting with the biological studies, can you walk us through the findings in the biological evaluation, which is Exhibit C-2 of the application.

A. (BY MS. DARLING) Yes. The biological evaluation looked at special status species, which are those threatened endangered that I mentioned.

There were 18 special status species potentially occurring in the project area, 14 of which were removed from consideration based on field visits as well as additional research. And I'll discuss those in a

minute.

We also looked at impacts or potential impacts to general wildlife and vegetation.

As I stated, much of the study area has been previously disturbed and/or is landscaped with native and non-native vegetation.

There are still some patches of native vegetation, mainly along the Pantano Wash, where there are areas of xeroriparian habitat. There's also wildlife, general wildlife, in the study area, such as native birds, sparrows, cottontails, coyotes, and javelinas.

TEP has standard practices for the protection of general wildlife and vegetation. Prior to construction, we do species-specific surveys, including migratory bird surveys, nest surveys. We identify cactus that are native. And if they're in an area where they're native, we would transplant them.

We complete these maps that you see on the right screen, which we call construction period maps. So, basically, they'll identify any sensitive areas, cultural sites, or cactus that need to be avoided or a nest that needs to be avoided, how they're going to access the project area, where they're allowed to go and not go.

So those are provided to all of the construction crews prior to construction. And they also get this card that I laid out at each of your seats, which gives them their restrictions and rules that they need to follow. And these are project-specific. This is just an example. Not all of them may be applicable to every project. But they'll get one of these.

And then they'll also get environmental training. So we have where we go into more detail about all of the different considerations they need to take when they're doing the construction of the project, and completing that training gives them a hard hat sticker. It's a project-specific sticker that they put on their hard hats. And they're kind of proud when they get them. And it basically shows that if you don't have that sticker, you better not be working on this project. So you better go get that training.

And we have environmental monitors, if they're necessary, and the environmental monitor is always looking for the stickers. Like, where's your sticker? You don't have your sticker. I've got to give you the training.

And we try to practice, to the extent practical, minimal disturbance, minimal clearing, using existing access to the extent possible; and, where we do

have to create new access, keeping that as narrow as possible.

And then, of course, we always have a stormwater pollution prevention plan in place to prevent erosion along the right-of-way.

Q. And are there any potential impacts to general wildlife and vegetation in the area? That's what I just -- you just covered that. Okay. That's right. Just wanted to double-check.

So moving on to the four special status species that you mentioned were determined to potentially occur in the area. Can you discuss those in more detail.

A. (BY MS. DARLING) Yes.

So all four of the special status species are listed by the Arizona Game & Fish Department as species of greatest conservation need. None of them are federally listed by Fish & Wildlife Services as endangered, threatened, or proposed for listing. So they're strictly listed by the local state Game & Fish Department.

The first three I talk about are -- can occur on any of the alternatives, and the last only occurs on the C1 alternative.

So the first is the western burrowing owl shown here on the left. The field surveys did not identify any

actual owls, burrows, or sign of owls, which would be like scat or tracks. But the habitat is there. There is the potential for them to, you know, occur in our project area. So we would resurvey the approved route prior to construction. And if we could not avoid a burrow, we would have to relocate the owl. And there are many places in Tucson where, for construction projects, we can relocate them.

Second is the rufous-winged sparrow, which some of you might remember from our last case, which is interesting because it occurred near the Sonoran Substation. And in this case, it occurs -- its habitat is present near our existing East Loop Substation. So the area on our first stop this morning, if you saw kind of all the trees that were between us and the East Loop Substation, that area provides habitat for the rufous-winged sparrow. Again, none were detected during the initial field surveys, but we would resurvey prior to construction. And we were recommended by the biologist who worked on the project to not -- to have as little impact on that vegetation as possible, which, as Mr. Raatz spoke to, we're using those existing lattice towers, so we're not going to create a lot of new disturbance in that area. So we are able to minimize any habitat disturbance there.

The next one is the western yellow bat. This is a year-round resident in Tucson, and they roost inside of these Washington fan palms. And there are Washington fan palms along Kolb and Pantano and all of the major roads north of the Patriot Substation. But all of the palms are actually outside of the road right-of-way, so we wouldn't be removing any of them. So we don't anticipate any impact to the western yellow bat.

And then the last species is the Brazilian free-tailed bat, also known as the Mexican free-tailed bat. And this is the only one that occurs only on C1 alternative, and that's because there is a roost colony underneath the Broadway Bridge at Pantano Wash.

The project, if we were to go with C1, is unlikely to have any impact. There's no direct impacts to the bridge there. And given all of the traffic noise already there along the bridge, these bats are very resilient. So our construction noise, were we to build C1 50 or 100 feet away from that bridge, are not going to have any impact on it.

And that concludes the biological study.

Q. All right.

That leads us to the non-biological study. Can you please describe the components of TEP's land use analysis.

A. Yes. So we looked at existing and planned land use, including zoning, generalized land use, residential land use, surface management, and land ownership, and planned and proposed land uses.

Q. So the Committee is understandably sensitive to the impact on residential use. Can you compare the amount of residential use within each alternative corridor and give us maybe the percentage of residential land use within each corridor?

A. (BY MS. DARLING) Yes.

Real quick, I'll just show these two slides which are -- on the left is the actual zoning of Pima County and the City of Tucson. The Pima County zoning is outlined in the black. And on the right is the actual land use in the project area versus the zoning. And they're very similar.

From Irvington to Patriot, we have a lot of commercial and industrial use. And then on the right side, you'll see the base itself in gray. And then north of Patriot, it's mainly residential use and commercial use. And so zoning and land use in this project are very much the same.

And then if you can advance the next slide, P-Dub.

So this is the residential land use actually

called out. So you can see from Irvington to Patriot, there's very little residential land use adjacent to the corridor except just south of the Patriot Substation, and that's where we actually cross over in the Google Flythrough. You might have seen when we cross over before we get to that neighborhood, and we're on the west side of Kolb Road entering Patriot.

When you leave Patriot, Kolb -- going up Kolb or going on C1 or going on B2, they're all adjacent to residential land use. So what we looked at was to compare the three and the percent that they have adjacent residential land use.

And I think I mentioned earlier, but A is exactly -- give you the more definite numbers -- 11.8 percent of the project link. B2 is 10.32 percent. and C1 is 7.48 percent.

CHMN. CHENAL: And, I'm sorry, Ms. Darling, what are those percentages again?

MS. DARLING: That's the percent of actual residential use, not zoning use, adjacent to the alternative of the total length of the project.

CHMN. CHENAL: And as opposed to private on the right side of the screen?

MS. DARLING: Yeah, that slide shouldn't be up yet. I'm sorry.

CHMN. CHENAL: Thank you. So can you give the percentages again? I was looking at the private, and I was thinking residential.

MS. DARLING: A is 11.8, B2 is 10.32, and C is 7.48.

CHMN. CHENAL: C1; right?

MS. DARLING: Well, the common route is included in all three of those percentages equally. But it's basically the percent of the total length of the entire alternative, not just from Patriot forward. That's why the numbers are low.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: Just to clarify, when you say these percentages of residential land use, what do you mean by "land use"? Ownership?

MS. DARLING: No. I mean, the land has -- actually has residential use. So it's either a single-family home, a duplex, an apartment complex, residence. People are living there. As opposed to sometimes the zoning doesn't match up so -- or it's not developed yet. But this is actual residential use where the red polygons are.

MEMBER HAENICHEN: So it has nothing to do with ownership of the land?

MS. DARLING: No, not yet. It doesn't mean --

because there's apartment complexes, so that doesn't mean that the people living there own the apartment complex. There's people living there, though.

Now you can proceed.

So this just shows the difference in surface management, which is who's managing the land versus who actually owns the land.

And the point of this one is just to show that -- on the left, you'll see all this pink in our study area where the base is. So that's DOD-managed land, but it's actually -- when you look at the table and this color green, it's actually land owned by the City of Tucson.

So Mr. Beck had talked about this yesterday, that all along Kolb Road and where AMARG is, that's actually owned by the City of Tucson and DM leases the land. So everywhere else, the surface management and land ownership pretty much match up.

And then this table will show you the percentages of City of Tucson, Pima County -- and these are owned land. This is not road right-of-way. So this is City of Tucson-owned parcels, Pima County-owned parcels, state land, Department of Defense, and private for each of the three alternatives.

Q. BY MS. DECORSE: And, Ms. Darling, to clarify,

that table on the right screen, land ownership at No. 30 is the updated table TEP Exhibit 17 that was mentioned yesterday as well?

A. (BY MS. DARLING) That's correct.

Q. And so that replaces the table in your direct testimony as well as in the actual application?

A. (BY MS. DARLING) That is correct. The percentages had been calculated incorrectly.

Q. MS. DECORSE: And, for the record, that's page 11 of the application, Table 1, and page 13 in your direct testimony, TEP-4?

A. (BY MS. DARLING) Right.

The slide on the left shows the planned and proposed land uses in the project area. The gray shaded areas are planned area developments, so they've been approved by the City.

The one where the Irvington Substation is here, that's our Irvington Campus. We actually obtained a planned area development a couple years ago for the whole campus.

And then these are kind of outside -- there's one that's a residential and then kind of a mixed use.

The yellow is the Port of Tucson.

And then the other applicable one is up here where our existing East Loop Substation is. That's the

Gateway Center.

This area south of the line is the landfill that Mr. Beck mentioned. It is part of the planned area development. Whether they're ever going to be able to develop it is questionable.

And then there's also some road improvement projects.

So ADOT intends to improve SR-210 or otherwise known as Aviation Parkway, which is rebuilding it along the 8/Alvernon Way alignment.

And then I-10, they're actually going to continue that all the way through to Wentworth.

And then this black here is that Valencia interchange that we saw today around the Amazon area.

And they also plan to improve Kolb Road all the way to Escalante as a six-lane road. So that road will be widened. And that was taken into account. In the Google Flythrough, I think you saw where we kind of jiggy-jogged when we came out of that scenic area back into -- in and out of the newly acquired road right-of-way there. And we're also up on the base's property or within the base itself in that section because of the future road widening. And because it's also a depressed, kind of a bowl, Kolb Road is there.

Q. So what analysis did TEP conduct to assess the

scenic areas and visual impacts of the project?

A. (BY MS. DARLING) So there was a desktop analysis where we used Google Earth to zoom in and look at different areas as well as field visits. And then we had a visual resource specialist who went out and took existing photographs of the project area and then overlaid the 3D design of the transmission line onto those photos at scale. And then the assessment of that, which we've already discussed, was folded into the alternatives analysis.

And our mitigation is pretty much using the self-weathering steel poles, as we've talked about before, and the nonreflective conductors to minimize the visual impact of the pole itself. We feel that the steel poles do blend in with the landscape and the environment better than the galvanized or painted poles.

And the -- I do have -- this is the KOP map that shows all the locations that we took the photographs at. There were 14 of them. 7, 13, and 14, were along alternatives that didn't come into the application, so they were either along C2 or B1.

And you've seen all of the KOPs when we did the Google Flythrough. Do you want me to go through them again or -- I mean, they're basically the same that we've already seen, so -- and they're in the application as G5.

CHMN. CHENAL: I don't think so, Ms. Darling.

MS. DARLING: Okay. Great.

Q. BY MS. DECORSE: Moving along, then, were there any historic or archeological sites identified as being affected by this project?

A. (BY MS. DARLING) Yes. There were two known cultural sites in the study area.

Can you put that map up on the right. Oh, you're looking for it. Okay. Sorry.

I'm just going to hang on for one second so we get the map up on the right.

There we go.

So there were two known cultural sites identified. The one on the left is an existing in-use gas line, which was determined eligible a long time ago. However, since then, the State of Arizona has actually determined that any in-use historic site would no longer be considered an archeological site. Regardless, it's narrow enough that we can span it, obviously, so it's not like we're going to impact it. But it's interesting that it was initially a site, but it's no longer considered a site.

CHMN. CHENAL: So it's a gas line that's so old that it's considered historic?

MS. DARLING: Yes. But it's in use and active.

And because of its age, it was made an eligible site because it was historic. But then they were like, This is silly.

And the other site is a prehistoric artifacts scatter that has -- its eligibility has not been determined. It was where we do the jiggy-jog around the Tucson Meadows neighborhood and on Research Loop where we turn back to the existing alignment.

Here's the jiggy-jog coming around. That's our existing alignment. And then this is Research Loop, and then this is the neighborhood. This is where we come straight through right now. So this has not been determined eligible. It's a developed parcel. As you can see, it's got asphalt and buildings.

So our intent is to span it, so essentially to put this turning structure here and another turning structure here and then another turning structure -- or another tangent structure there and avoid it altogether.

If, for some reason, we can't do that when we get to the final design, we'd have to go to SHPO, the State Historical Preservation Office, and ask them if the site is eligible. And if it is eligible, then we'd have to do whatever mitigation they tell us to, which could include testing or data recovery. It's unlikely that it's eligible given that it's paved over and built over.

But I can't speculate, so I don't know for sure.

CHMN. CHENAL: And what, again, Ms. Darling is the cultural significance of that parcel?

MS. DARLING: It was recorded very early on after the law came into effect. It's got a very early number as a prehistoric archeological site. And I would have to do more research to understand how it is that they developed the site and built over it without determining its eligibility. But as far as I know and we were able to determine, it's not been determined whether it's eligible or not yet.

So TEP's standard practice is once we do have an approved route and we get into the design and we know exactly where our poles are going to be, we do a Class III survey for cultural resources of any areas that haven't been surveyed in the last ten years. And then based on that Class III survey and the determinations made and the recommendations made by the archaeologists, we proceed from there, which would be -- our first course, if we find anything, is to avoid it. If we can't avoid it, then we coordinate with the SHPO's office and basically follow whatever mitigation we're required to follow.

Right. You'll note that this cultural map on the right has been redacted from our PowerPoint

presentation, TEP-5, and that's because we're not allowed to publish the locations of archeological sites, but I can show it to you shortly on the screen.

Q. BY MS. DECORSE: And, Ms. Darling, in addition to cultural sites, does the company look at recreational sites or -- I don't know how you technically referred to it -- facilities?

A. (BY MS. DARLING) We looked at all the locations of parks and trails within the study area. And we are adjacent -- running adjacent to a park here along common area 1. This is the Julian Wash, which sort of runs south of -- it's the Julian Wash Trail -- runs south of the common route. And this part here is just adjacent. It's actually on the opposite side of the railroad tracks, so we have no direct impacts there.

And then, you know, as we've discussed, the C1, the Pantano Wash does have -- the river park trail runs along it. So there's short-term impacts during construction. There would probably be some closures to the trail for safety and things like that, but they wouldn't be long term or permanent. Beyond that, it's a more indirect impact such as we had talked about, you know, the visual and things like that.

So that's the recreation section.

And then Eric is going to talk about noise.

Q. Okay. Are there any special permits that you need to get for -- was it C1 that you -- I think you mentioned earlier?

A. (BY MS. DARLING) Yes. It's managed by Pima County Flood Control District, and we do have to get a use permit from them. And they're fairly easy to follow the process of getting one.

I would mention that there is a letter -- and I get into it more in the stakeholder -- but Pima County Flood Control District did submit a letter. They support our preferred alternative. And they would prefer we not build this one, but they do understand that they can't really say no, because we can get a permit.

Q. Okay.

A. (BY MS. DARLING) Yeah.

MS. DECORSE: I'm going to hand it over to Mr. Derstine now.

MR. DERSTINE: Timingwise, Mr. Chairman, we're at 5:10. We're going to switch witnesses and move topics into noise but more deeply into EMF/FAA issues. Do you want us to finish up, or you want us to move till tomorrow morning?

CHMN. CHENAL: Well, I think we go till tomorrow.

How much time do you think you'll need to

finish tomorrow? Well, you'll finish the panel, and there may be some follow-up questions. You might want to get into a couple more matters that came up today.

MR. DERSTINE: I think we'd be in a position to finish all our evidentiary presentation in the morning and be in a position to close maybe after the lunch break and then move to conditions and consideration of whether the Committee wants to grant a CEC.

CHMN. CHENAL: Let me look at the Committee and see if that schedule does sound reasonable.

MEMBER HAMWAY: Are you comfortable doing the CEC in the afternoon?

CHMN. CHENAL: Yeah. I normally don't like to start too late in the afternoon, but I think if we start right after lunch, we'll -- with a short closing statement as we get into it, I don't think this is going to be particularly complicated once we get into deliberations. So, yes, I am, and I don't know that it's going to take the entire morning.

MR. DERSTINE: No. And I'm probably adding additional time for the morning. I think the slides that we have and how much we have left in terms of our direct presentation I don't think is more than two hours.

And so we may be in a position to close even before the lunch break. It's just a function of how many

additional questions we have and if there's any redirect and things that we need to clean up and make sure you have all the information you need to make an informed decision.

CHMN. CHENAL: Is everyone comfortable on the Committee with breaking now and then resuming at 9, and we'll -- I know sometimes we're kind of lax with time, but how about tomorrow we keep a little more strictly to the times, and we can make sure we have plenty of time to do the deliberations.

So if the Committee is good with that and the applicant is good with that, I think we can break for the evening.

Is there anything we should discuss before we break? Procedural matters?

MR. DERSTINE: Ms. DeCorse does not sleep well when I fail to move the admission of the exhibits, so maybe I can move the exhibits that we've marked and that we've discussed. And then we'll just have what's remaining tomorrow to move into evidence.

So I've got TEP Exhibit 1 is the application.

TEP-2 is Mr. Beck's prefiled direct testimony.

TEP-3 is Mr. Raatz's prefiled direct testimony.

TEP-4 is Ms. Darling's prefiled direct testimony.

TEP-5 is our hearing presentation that we've been following using on the left screen.

In addition, Mr. Raatz spoke to TEP-12, TEP-13, and TEP-14, which were changes, corrections to the application.

TEP-15 was the letter that Mr. Beck referred to in his discussion of the switchyards versus substation issue.

And TEP-16 was the PowerPoint presentation that Mr. Beck showed on the right screen relating to the discussions and the negotiations with AMARG to get them on board and support the project.

So I would move the admission of those exhibits, TEP Exhibits 1, 2, 3, 4, 5, 6, 12, 13, 14, 15, and 16.

CHMN. CHENAL: And what was 6 again, Mr. Derstine?

MR. DERSTINE: Oh, and I need to include 6. That's the route tour schedule and map. Thank you.

CHMN. CHENAL: All right. So TEP Exhibits 1, 2, 3, 4, 5, 6, 12, 13, 14, 15, 16 have been moved into evidence.

Any objection?

(No response.)

CHMN. CHENAL: Hearing none, those exhibits are

admitted into evidence and into the record.

So --

MR. DERSTINE: Thank you.

CHMN. CHENAL: All right. So we'll start at 9 a.m. tomorrow. There are cookies, yes.

MS. DARLING: Please take the cookies with you.

CHMN. CHENAL: And just a reminder, when we begin the deliberations -- and my assistant has already emailed the Word version -- we'll have TEP for identification 21 on the left side, and then 22 will be the working document that we will work through and make additions, changes, what have you. And at the end of which, we'll vote and, if it's adopted, that will become the CEC.

So if there's nothing else, let's adjourn for the evening, and we'll see everyone tomorrow at 9 a.m.

Thank you.

(The hearing recessed at 5:17 p.m.)

STATE OF ARIZONA)
COUNTY OF MARICOPA)

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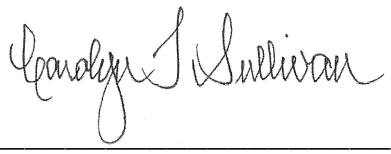

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