BEFORE THE ARIZONA POWER PLANT
AND TRANSMISSION LINE SITING COMMITTEE

In the matter of the Joint Application of Nogales Transmission, L.L.C. and UNS Electric, Inc. ("UNSE"), in conformance with the requirements of Arizona Revised Statutes §40.360, et seq., for Certificates of Environmental Compatibility authorizing construction of the Nogales Interconnection Project and the UNSE Nogales Tap to Kantor Upgrade Project, including an approximately 27.5-mile upgrade of UNSE's existing 138-kV transmission line from a point near the existing Western Area Power Administration ("WAPA") Nogales Tap in Pima County and the existing UNSE Kantor Substation in Santa Cruz County, a new approximately three-mile 138-kV double circuit transmission line in Santa Cruz County from a point near the existing UNSE Valencia Substation to the proposed Gateway Substation and associated facilities, and a new approximately two-mile 230-kV transmission line and associated facilities in Santa Cruz County to interconnect the proposed Gateway Substation to the Mexican National Electric System.	DOCKET NO. L-00000F-17-0246-00176 L-00000CCC-17-0246-00176 Case No. 176 VOLUME III PAGES 397 - 567

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

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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 Desert Diamond Casino, 7350 South Nogales Highway, Tucson, Arizona, commencing at 9:11 a.m. on the 7th of September, 2017.

BEFORE: THOMAS K. CHENAL, Chairman
LAURIE WOODALL, Arizona Corporation Commission
LEONARD DRAGO, Department of Environmental Quality
JOHN RIGGINS, Arizona Department of Water Resources
JIM PALMER, Agriculture, Appointed Member
MARY HAMWAY, Cities/Towns, Appointed Member
JACK HAENICHEN, Public Member
PATRICIA NOLAND, Public Member
RUSSELL JONES, Public Member

APPEARANCES:

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For the Arizona Corporation Commission Staff:

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(Present for the tour: Applicants, Chairman Chenal, Members Haenichen, Drago, Riggins, Hamway, and Palmer)

CHMN. CHENAL: All right. Good morning, everyone. Now is the time set for the start of the tour, Thursday morning. So we will proceed on the bus and take the tour as outlined in the materials that have been filed in the Docket Control as exhibit -- I forget the number.

MR. BECK: 2.

CHMN. CHENAL: 2. And so we will proceed.

(TIME NOTED: 9:11 a.m.)

(The tour proceeded to Stop 1.)

STOP 1

(TIME NOTED: 9:41 a.m.)

CHMN. CHENAL: Let's go on the record, Mr. Beck, and you can tell us where we are and what we are looking at.

MR. BECK: All right. Just to the north of us here, this substation is what is called the Nogales Tap. It is on a Western Area Power line, which is the wooden line crossing this way. Originally that was a starting point for the circuit that fed Nogales. The previous

project we disconnected from there and ran it over to Vail, which there has been some testimony about.

One of the things you probably, you may have noticed, the alignment originally was all on the east side of Wilmot and we dropped right into Nogales Tap. If you look here, we have got, I think it is, three structures on the other side of Wilmot, because this is BLM land and, when we were doing the project, it would have been a five-year process for us to get a permit. It was easier for us to go across and put the poles on the other side. So that's what we did.

So from this point going south is the project, the Nogales Tap to Kantor upgrade project. We don't do anything with that turning pole. That is good from there to the north. But from there to the south is what needs to be rebuilt.

And so the one option is to go on the west side of Wilmot, which was our Alternative 1. The existing alignment is as it is, you can see. And then on this portion of the project we would be with Alternative 2 on the east side of these structures. It would be 25 feet over.

MS. ALSTER: So the question is you would be adding another set of poles if --

MR. BECK: We would build a new circuit and

these would come down. They get taken away.

So we will go to -- the next stop I believe is Andrada Road where we cross over. That's where we would cross from the east side of this line over to the west side to fit along the right-of-way. This is the portion of Wilmot that was rebuilt and it has got new pavement, so...

MEMBER HAMWAY: I have a question.

MS. DARLING: And they extend the right-of-way to 150 feet wide in this area, which brings it up closer to our existing line.

MR. BECK: Wilmot Road right-of-way.

MEMBER HAENICHEN: Ed, are the new poles, too, taller ones?

MR. BECK: Yes, sir, just like these.

MEMBER HAENICHEN: Can you use the same underground structure to hold them or do you have to strengthen it?

MR. BECK: We will put new ones in because, to take this one out and rebuild it, we would have to take the circuit out of service.

MEMBER HAENICHEN: Okay. I got you.

MR. BECK: Yeah.

MEMBER HAMWAY: I guess my question was earlier, I asked if you were going to decommission any

structures. So are you planning on decommissioning these? Right? Or you are just -- is that the wrong term?

MR. BECK: Yeah, that's a correct term. And if I wasn't clear, yes, we would be removing these once the new line gets built.

MEMBER HAMWAY: I didn't get that yesterday.

MS. ALSTER: So the new poles would look like that?

MR. BECK: Look like the poles going to the north.

MS. ALSTER: Okay.

MR. BECK: They are not all going to look exactly like this. It is a turning structure because --

MS. ALSTER: Right, right, right.

MR. BECK: This is a heavier structure. The tangent structures are what they will look like.

I think that's it.

CHMN. CHENAL: Thank you very much.

(TIME NOTED: 9:45 a.m.)

(The tour proceeded to the Stop 2.)

STOP 2

(TIME NOTED: 9:52 a.m.)

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

the second stop.

MR. BECK: This is our Stop 2, Andrada Road right here. This is the point where we would cross over from the east side of our existing alignment to the west side if we use Alternative 2. And then we would continue down to the south, utilizing the west side of our existing just to the west of our existing circuit.

CHMN. CHENAL: But Mr. Beck, it is still east of the road.

MR. BECK: Correct, yes. For Alternative 2, assuming going with Alternative 2, we would be east of the road. But we would jump from the east side of our existing circuit to the west side to stay away from the houses that will be coming up on our left.

CHMN. CHENAL: Oh.

MR. BECK: And then, again, the west, the alignment to the west of Wilmot, we would have to be on the other side of this circuit here. So this is the area that State Land expects to make a lot of money on. So...

CHMN. CHENAL: Is this -- help me understand. The alternative that you wanted, that is not going to be an option apparently, is this where the option you wanted, where the line would transverse from the east side of Wilmot to the west side of Wilmot at this point?

MR. BECK: No.

CHMN. CHENAL: Okay. Would you explain that.

MR. BECK: Yes. If we had gone with Alternative 1 and continued with that as our preferred, from the point where we stopped previously and we were going to cross over Wilmot, there would be no crossing. We would continue in a straight line to the south. That's one of the benefits of that alignment, there is no turning structures. And we would continue straight down, continue down the west side of Wilmot all the way to where we join up with the existing line on the diagonal. Because, if you recall from our diagrams, the line heads south, existing line, and then it turns to almost at a 45 degree angle going across the Santa Rita Experimental Range.

CHMN. CHENAL: How far approximately from here is that point, approximately?

MR. BECK: Is it four miles?

MS. DARLING: Nine and a half -- from here or the beginning?

MR. BECK: From here.

CHMN. CHENAL: From here.

MS. DARLING: From here, five miles.

CHMN. CHENAL: Roughly five miles.

MR. BECK: Because there is nine and a half

miles.

CHMN. CHENAL: Your alternative you had hoped for would have gone from your first substation.

MR. BECK: Right.

CHMN. CHENAL: You would have continued on the west side of Wilmot all the way down, down to where the diagonal is.

MR. BECK: Right. It would have just intersected the diagonal and then stayed on the west side of the existing alignment.

MS. ALTSER: Again, why couldn't you do that? I -- was that because of the --

MR. BECK: Because State Land will not sell us the right-of-way.

MS. ALTSER: Okay, got you.

MEMBER HAMWAY: So would these lines have still been decommissioned had you been on this side?

MR. BECK: Absolutely. We would have totally removed the alignment.

MEMBER HAMWAY: And who owns this structure?

MR. BECK: I believe this is TRICO, one of their distribution lines. They have the service territory down in this area.

MEMBER HAMWAY: Now, the planned community of Verano, was that our first stop?

MS. DARLING: It was parallel and all the way up to the prisons on the west side of Wilmot.

MEMBER HAMWAY: Okay.

MS. DARLING: And then Wilmot Park neighborhood, the planned development is down here on the east side before you get to all the houses that are already developed.

CHMN. CHENAL: All right. Any more questions?

(No response.)

CHMN. CHENAL: All right. Thanks.

MR. BECK: Okay.

(TIME NOTED: 9:56 a.m.)

(The tour proceeded to Stop 3.)

STOP 3.

(TIME NOTED: 10:01 a.m.)

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

MR. BECK: So we are at Stop 3, which is just south of Sahuarita Road. This is Sahuarita Road right here. From this point south, the dirt road gets a lot rougher so we didn't intend to go any further on this particular piece.

But, again, we have got Alternative 1 would have been on that side of Wilmot. Alternative 2 here would be on the west side of our existing line.

CHMN. CHENAL: But still east of Wilmot.

MR. BECK: But east of Wilmot. And then the existing right-of-way is option 3, so...

CHMN. CHENAL: Then how far down before that diagonal you were talking about? Just a few miles?

MR. BECK: Yes, approximately a couple miles.

Yeah, so we get to a point we diagonal across what is called the Santa Rita Experiment Range, a lot of historical picture -- for 100 years they have taken pictures of the same position, and they have got photographs over that 100 years. So they can see any changes in the flora, fauna, and all that kind of stuff. So as long as we stay along our existing line, they are okay with that line being rebuilt there, as long as we don't go somewhere else and disturb a new picture.

MEMBER HAENICHEN: Who controls that range?

MR. BECK: University of Arizona. It is State Land but University has control over it.

MEMBER HAENICHEN: Is the public allowed to meander around through it?

MR. BECK: I believe so.

MS. DARLING: Most of the gates are locked, so no.

MR. BECK: I guess not. Gates are all locked, so... Used to be you could get on there and wander

around. But they are pretty protective of it.

So any questions at this point?

(No response.)

MR. BECK: We have got one more stop, which will be down near the Kantor sub, so... And then if there is anything else you want to see, we can certainly do it.

CHMN. CHENAL: Okay. Thank you.

(TIME NOTED: 10:03 a.m.)

(The tour proceeded to Stop 4.)

STOP 4.

(TIME NOTED: 10:39 a.m.)

MR. BECK: So what we are looking at here is Kantor substation to the south. We are standing, at least the bus is, more or less under the 46kV line. Our 138 is next to that. And in this stretch we would be on the east side of the existing line coming into Kantor.

So a little bit north of here is Mt. Hopkins Road. And that's where we cross from west over to the east because of the 46 joining in. The 46 comes down along from the west along Mt. Hopkins Road and then turns down to Kantor.

And this is the emergency tie to TEP. I mentioned in testimony that that's the 14 megawatts of capabilities we have on that 46 line to help supplement

what we send over to the 138. So that 46 ties into Kantor and can feed some of the distribution load that's at Kantor substation.

CHMN. CHENAL: That's Nogales? The distribution load for Kantor is predominantly Nogales?

MR. BECK: It is UNS Electric's within Santa Cruz County.

CHMN. CHENAL: Santa Cruz County.

MEMBER HAENICHEN: You might point out these are the Corten, right? These towers, they rust to a certain point and stop.

MR. BECK: Correct, these are the Corten, or weathering steel. They rust to a point where they get a patina on them and then basically seal themselves and don't rust anymore.

MEMBER HAENICHEN: Right.

CHMN. CHENAL: So again, Mr. Beck, the 138 line, when the new line is built, these will be decommissioned, correct?

MR. BECK: Correct. These will be taken out, yes.

MS. ALSTER: Which ones will they be replaced with? What will they look like? Similar to those?

MR. BECK: Somewhat similar, but they will be exactly like the ones we saw at the first stop.

MS. ALSTER: Got it. The Wilmot.

MR. BECK: These are the older, they are a little bit lighter structure. Just looking at them you probably don't realize that's what they are. They won't support the load of the new conductor. And you will see, these were put in originally by Citizens Utilities, they put the ladder rungs on. You will see as you get part way up the pole there are rungs on there. We don't put those on. That was relative to the Border Control issue. We don't put ladder rungs on, so...

MEMBER HAENICHEN: How do they climb them then?

MR. BECK: We use bucket trucks.

MEMBER HAENICHEN: Use just trucks, big boom.

MEMBER HAMWAY: Cherry pickers.

MR. BECK: Cranes, yes. Anyone is welcome to go climbing up these to see if they can start up of pole. But I think your first touch you would let go pretty quickly. Pretty warm right now.

Any questions?

As you can see, this road is an example of some of the maintenance we will have to do. The road is washed out halfway. We had a pretty heavy early monsoon storm season, or heavy rains during our early monsoons. So we did have a lot of washouts on our roads. Typically we won't go into a lot of maintenance until we

actually need to access structures.

CHMN. CHENAL: How far is Valencia substation from Kantor?

MR. BECK: Approximately 30 miles. So this is roughly the halfway point between our Vail substation and the Valencia substation.

CHMN. CHENAL: So your system goes directly from Vail to Valencia?

MR. BECK: Well, it goes from Vail to three intermediate substations and then Valencia. So it ties in at Kantor, ties in at Cañez, ties in at Sonoita, and then hits Valencia.

CHMN. CHENAL: Got it.

MR. BECK: We didn't really talk much in the case about it. If you look at the system impact, there is a diagram that shows those intermediate subs. They serve a little bit of distribution load at each one of those subs for just the areas right around the substation basically.

MEMBER HAENICHEN: Thank you for a very informative tour.

MEMBER HAMWAY: Yeah. It has been very helpful.

MR. BECK: If there is anything you wanted to see on the way back, I mean we have got a little bit of time, but...

MEMBER HAENICHEN: I know one of our Committee members would like to see a restroom.

MR. BECK: We thought we would stop at the rest area on the way back. That's a good point.

CHMN. CHENAL: Okay.

MS. DARLING: Are we going to go back out around or back on this road?

MR. BECK: Let's make sure we hit the rest areas.

CHMN. CHENAL: We are off. Thanks.

(TIME NOTED: 10:44 a.m.)

(The tour proceeded to the hearing room.)

(A recess ensued at 11:30 a.m. to 1:11 p.m.)

CHMN. CHENAL: All right. Good afternoon, everybody. This is the time set for a continuation of the hearing.

For the record, we had a very, I thought, informative tour this morning. I thought it was very well done. And Mr. Beck was very succinct in explaining the stops and what we are looking at and kind of tying it together. I think it was very well done. I heard a number of positive comments from the members that attended.

Just another point, before the hearing started, a question was asked about how the Committee likes the

iPads, having the documents, you know, the exhibits loaded on it. And I think, I think universally the members think that's a great idea, and it is a huge success. So I just wanted to thank you for that and note it for the record. So these iPads were lent to us and the documents were loaded, at least the documents, the exhibits, very user friendly and very helpful. It is much easier than lugging around the massive exhibit books in this case and the application.

So are there any housekeeping items we should address? I should ask members if they have any housekeeping items they would like to address.

Mr. Drago.

MEMBER DRAGO: I have a question. I brought my materials with me, but I notice we have another manual on the table. Does this manual that was provided when I got here have corrections in it? Which one should I refer to?

MR. GUY: No. We did not keep track of which Committee member took their notebook or left their notebook, so we packed up from the other facility and just distributed notebooks.

MEMBER DRAGO: Thank you.

CHMN. CHENAL: So we have an iPad full of the exhibits and we have two full binders, each of us, so we

have got plenty of exhibits.

Any other housekeeping items from any of the members?

Yes, Member Haenichen.

MEMBER HAENICHEN: A special meeting tonight is in this room?

MR. GUY: It is.

MEMBER HAENICHEN: Thank you.

CHMN. CHENAL: Mr. Guy, any housekeeping items, or Mr. Jacobs or Mr. Hains?

MR. GUY: None other than perhaps clarify which may be obvious. We have talked to Staff, and although we tentatively talked about having to take Staff out of order, since we are just down to one witness, we will go ahead and present Michelle Bissonnette; after she finishes her testimony, go to cross-examination, have that be completed, and then Staff will present their witnesses.

CHMN. CHENAL: Okay, that's fine. And if for any reason it takes longer than we anticipate and we need to take the Staff's witness out of order, we will be happy to do that, but looks like we don't have to, so...

All right. Mr. Jacobs, anything from you in terms of housekeeping items before we begin?

MR. JACOBS: No, not right now, Mr. Chair.

CHMN. CHENAL: All right. So Mr. Guy, I guess Madame Bissonnette is the next witness. Oh, excuse me.

Do we have anyone who wants to give public comment before we begin the hearing?

Yes. Would you please come address -- to the microphone, and give us your name.

MS. ALSTER: Hi. My name is Ellen Alster. And I'm a local landscape architect. And I wanted to thank you all for letting me address you.

I went on the tour this morning. It was very informative. The bus was even comfortable. And I want to say that I am very supportive of the project, of the whole. And I thought the siting, there was a lot of thought in it. So I am very supportive of the project.

I do want to make one suggestion, however. As a landscape architect and someone very concerned with visual quality in the state, I don't think I read the reports that the self-weathering Corten steel is environmentally compatible in the environment of southern Arizona. It is a very nice material. I like Corten steel. But it is kind of contact sensitive. So if it was sunny against red rocks or if it was in a forest, it would be very appropriate. But in the context of southern Arizona, it is usually silhouetted

against our bright blue skies. Like along Wilmot Road it is very contrasty with the environment. It doesn't blend in. It stands out and it becomes our biggest landscape element.

And the -- as we went through the site this morning, I was more convinced of that, that although Corten steel is a great element, it is very bold and it doesn't, it doesn't match anything in the landscape. We don't have anything dark reddish brown that matches it. And then when we put up light poles and other features, which are galvanized, it is also very much in contrast with that.

So I would recommend, especially since this is near Coronado National Forest, near recreation areas, it is views, unlike -- like a gray finish, which has less contrast with the sky and other elements in the sky, I would recommend a material that has less contrast with adjacent landscape. And if you had done like a visual simulation of any kind and did comparisons of the self-weathering steel up against the bright blue sky, and next to it like a galvanized finish, I think you would all see the tremendous contrast with the self-weathering steel.

But other than that, I am very supportive of the project. I think it is a great project and the site

design is very well done.

Thank you.

CHMN. CHENAL: Thank you, ma'am. May I ask a question of you. When you said less contrasting material, what material would you propose? I am just -- so I can have a discussion.

MS. ALSTER: Something in the gray ranges like APS or SRP uses, like galvanized, like a nonreflective. You don't want it real shiny. You want it to be something like a dull gray finish that would have less contrast with the background landscape. Because if you drive up I-19, you can see the Corten steel poles and the great contrast they have. If you drive down Wilmot, you can see the very large poles. I have got pictures I have taken for my own use. And they are very bold and they stand out. And we have 27 miles of these to look at for the next 30 years, however long, you know. I understand that these poles last 30, 40 years. It is a great material, but I think it is a big payoff in terms of the effect to the landscape.

CHMN. CHENAL: All right. Thank you.

Member Woodall.

MEMBER WOODALL: I note that the application has --

MEMBER HAMWAY: We can't hear.

MEMBER WOODALL: Can you hear me now?

There is an Exhibit E to the application in this case that has Exhibit E-1A that has a reference to scenic areas. And I am wondering if someone during the course of their testimony could discuss the scenic evaluation that was done in view of the comments that we have had from the landscape architect.

I am sorry. I forgot your name.

Thank you.

CHMN. CHENAL: Thank you for your comments.

Mr. Guy.

MR. GUY: Yes, Ms. Morrissey will present Ms. Bissonnette.

CHMN. CHENAL: Okay. Ms. Morrissey.

MS. MORRISSEY: Thank you, Mr. Chairman.

DAVID CERASALE, MICHELLE BISSONNETTE, and RENEE DARLING, called as witnesses on behalf of the Applicants, having been previously duly sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION CONTINUED

BY MS. MORRISSEY:

Q. Ms. Bissonnette, please state your name for the

record.

A. (BY MS. BISSONNETTE) My name -- is this on?

My name is Michelle Bissonnette.

Q. Could you pull the microphone just a little bit closer.

A. (BY MS. BISSONNETTE) How is that? My name is Michelle Bissonnette.

Q. And Ms. Bissonnette, could you please locate the documents labeled Exhibit UNS-13, UNS-14, and UNS-14.1 in front of you.

A. (BY MS. BISSONNETTE) Yes.

Q. Can you confirm Exhibit UNS-13 is your written direct testimony that was prefiled in this proceeding?

A. (BY MS. BISSONNETTE) Yes, it is.

Q. And is UNS-14 a copy of your hearing presentation?

A. (BY MS. BISSONNETTE) Yes, it is.

Q. Were both these documents either prepared by you or under your supervision?

A. (BY MS. BISSONNETTE) Yes, they were.

Q. Have you reviewed these two documents since they were filed?

A. (BY MS. BISSONNETTE) Yes, I have.

Q. Have you identified any changes or corrections you would like to make to those documents?

A. (BY MS. BISSONNETTE) The marked Exhibit 14.1 was prepared and changes were made to it. And the only change I have is that in the slides, Slide 14, the first bullet, the third sub bullet should be added impacted to the end of that line.

Q. Thank you.

And are the changes that are in Exhibit UNS-14.1 already reflected in UNS-13 and UNS-14?

A. (BY MS. BISSONNETTE) Yes, they are.

Q. So do you have any other changes besides the one that you just noted this morning?

A. (BY MS. BISSONNETTE) No other changes. Thank you.

Q. And if I were to ask you those same questions again, would your answers be the same?

A. (BY MS. BISSONNETTE) Yes, they would.

MS. MORRISSEY: Mr. Chairman, we would offer UNS-13, UNS-14, and UNS-14.1.

CHMN. CHENAL: All right. Thank you.

Any objections?

(No response.)

CHMN. CHENAL: Hearing none, UNS-13, UNS-14, and UNS-14.1 are admitted.

(Exhibits UNS-13, UNS-14, and UNS-14.1 were admitted into evidence.)

MS. MORRISSEY: Thank you, Mr. Chairman.

BY MS. MORRISSEY:

Q. Ms. Bissonnette, we have loaded Exhibit 13 onto the projector for our use. Please tell the Committee about your educational background.

A. (BY MS. BISSONNETTE) Yes. My educational background is I have a landscape architecture degree and a foreign studies minor.

Q. And could you please describe your professional background for the Committee.

A. (BY MS. BISSONNETTE) My professional background, I have consulted in the power and energy field such as environmental impact statements, environmental assessments --

(Brief pause.)

A. (BY MS. BISSONNETTE) Okay, let's try this again. Sorry.

I consult on power and energy, or in the power and energy field.

Let me know if this works, and if it doesn't, then I will go to the handheld.

I coordinate with our national power team with the environmental staff and work with folks on environmental projects in the power and renewable field, and I manage the preparation of the environmental -- it

is hard to read that screen from here.

CHMN. CHENAL: Ms. Bissonnette, I think, if you make sure your mouth is a little closer to the microphone. It almost has to be right, you know, just right up close to it.

MS. BISSONNETTE: Is this one on? How is that? Okay.

And I managed the preparation of environmental studies for the Nogales interconnection project in support of the Presidential Permit. I have 27 years of experience in environmental consulting, and 22 of those years is with renewable and electric utility industry projects.

I am previously, prior to my role now, senior project manager and a section manager, and then prior to that I worked for an engineering and environmental consulting company for ten years prior to that.

BY MS. MORRISSEY:

Q. And Ms. Bissonnette, who are you testifying on behalf of today?

A. (BY MS. BISSONNETTE) I am testifying on behalf of the Nogales Transmission, LLC and UNS Electric, Inc.

Q. Ms. Bissonnette, could you please give us an outline of the topics your testimony will cover today?

A. (BY MS. BISSONNETTE) Yes. The role of the

project -- on the role of the project, I was project manager for the environmental assessment, and that was submitted in support of the Presidential Permit application. And I will be talking, giving an overview of the environmental study conducted for the Nogales interconnection project, the Presidential Permit application, the environmental assessment that was prepared for the application by HDR. And HDR also prepared the biological field report and the Class III cultural resource report. I will be also talking about the environmental assessment that was published by DOE.

Q. And the environmental assessments that you just referenced, the Presidential Permit application and the DOE, could you explain for the Committee how they relate to the analysis today?

A. (BY MS. BISSONNETTE) Yes. These studies were performed to comply with the Presidential Permit application process. And the environmental components of which we will talk about, or I will talk about, the existing environmental conditions, identifying the potential environmental impacts, and then I will discuss the mitigation measures to address these potential impacts, therefore, the studies relevant to the Committee's consideration, the factors regarding the project's environmental compatibility.

Q. Ms. Bissonnette, could you please describe what Slide 3 shows the Committee?

A. (BY MS. BISSONNETTE) Yes. The slide outlines the impact of the Nogales interconnection project on environmental CEC factors. First of all, I will be going over the biological factors, such as fish, wildlife, plant life; existing environmental conditions; and special status species. And then we will move into the nonbiological factors, land ownership and use, scenic areas, recreation, historic sites and structures, and archeological sites, and noise emissions.

Q. Ms. Bissonnette, in your expert opinion, are the alternative routes of the Nogales interconnection project compatible with the environment and ecology of the State of Arizona?

A. (BY MS. BISSONNETTE) Yes, based on the factors I just described, each of the routes are environmentally compatible.

Q. And what is the basis for your conclusions?

A. (BY MS. BISSONNETTE) The review of the routes, the DOE draft EA, the associated draft Class III cultural resource surveys, the Presidential Permit EA and associated biological field report, and the Class III cultural resource survey, and factors considered by the Committee in order to determine

whether a CEC should be granted.

Q. Now, Ms. Bissonnette, you have outlined some of the environmental analyses. Just to briefly go through the purpose of those for the Committee members, so we can understand the specific topics they outline, could you please describe the purpose of the DOE draft EA?

A. (BY MS. BISSONNETTE) Yes. The purpose of the DOE draft was prepared by HDR as Nogales Transmission's environmental consultant. Again, I supervised this study. And the factors that were included in the Presidential Permit EA are included in the Committee's CEC analysis. And those are land use, geology and soils, vegetation, wildlife, water resources, cultural resources, visual quality, noise, radio, television, and cellular telephone communications. And studies are centered on an approximately 250 foot wide area on the route segment variations and the Gateway substation area as well.

Q. And moving on to the DOE draft EA, can you please elaborate on the purpose of that environmental assessment?

A. (BY MS. BISSONNETTE) Yes. The purpose of the DOE draft EA was to assist the Office of Electricity Delivery and Energy Reliability, Transmission Permitting and Technical Assistance Division in its review of the

Presidential Permit application. Now, long name for the office there, but...

Q. Is DOE the only federal or state agency that was involved in that process?

A. (BY MS. BISSONNETTE) No. There are cooperating agencies. There are three cooperating agencies, and that includes U.S. Forest Service, U.S. Section of the International Boundary and Water Commission, and the ACC Staff.

Q. And has the DOE consulted other agencies or Tribes during this process that would adopt the committee analysis?

A. (BY MS. BISSONNETTE) Yes, Section 106 of the Historic Preservation Act consultation requested with SHPO and 22 federally recognized Tribes in Arizona and the advisory council -- the Tohono O'odham Nation and SHPO accepted -- and also Section 7, ESA, or Endangered Species Act, working with the U.S. Fish and Wildlife Service, and government-to-government consultation with Tribes. The Tohono O'odham Nation accepted.

And it should be noted that there are no Tribal lands that are crossed by the project.

Q. Ms. Bissonnette, let's move on to the biological environmental analysis on the next slide. Could you please describe the existing environment in the vicinity

of the Nogales interconnection project?

A. (BY MS. BISSONNETTE) Yes. The existing conditions fall within the Mexican Highland section of the Basin and Range physiographic province of the Intermontane Plateaus. And the elevation ranges, elevation, okay, the elevation ranges from 3,765 feet near the Valencia substation to 4,239 feet near the U.S. and Mexican border.

And the terrain is characterized by extensive patterns of short, dissected ridges and draws formed along longer ridges descending from the nearby mountains. There is approximately 56 percent of the area that consists of developed land, with the remaining 44 percent consisting mostly of natural habitat, with some evidence of grazing and development. And as we saw on the tour yesterday, the eastern portion of the project is much more developed than the western portion of the project that is close to the CNF.

Q. Ms. Bissonnette, could you please elaborate on the existing conditions as they relate to water resources and aquatic habitat?

A. (BY MS. BISSONNETTE) Yes. The existing fish life and aquatic habitat, the project is within the Santa Cruz watershed and Santa Cruz active water management area. And the perennial bodies of water

within one mile of the routes include:

The Nogales watershed, or the Nogales Wash. And the north-south reaches of the Nogales Wash is classified as intermittent in this area. The Mariposa Wash is dry during much of the year. And again, we did see the Nogales Wash or the Mariposa Wash yesterday on our field trip. And then the Potrero Creek.

And also -- go ahead.

Q. Please elaborate.

A. (BY MS. BISSONNETTE) Okay. And the DOE draft EA indicates that the water used during construction will likely be an approved city source. And if groundwater from the wells -- if groundwater from wells were to be used, the impacts to groundwater quality would be considered minimal. And there are no impacts to aquifers from operations and maintenance of the project, and it will not impair aquifer recharge.

Q. So one of the factors you mentioned was impact on fish life in the project area. Could you please describe for the Committee any impacts on fish?

A. (BY MS. BISSONNETTE) The DOE draft EA indicates that there is one -- that there are historical or current records of one federally endangered fish species and two state fish species of concern within three miles of the analysis area. However, these species are

unlikely to occur because there is no suitable habitat located in the analysis area.

Q. Ms. Bissonnette, could you please describe plant life -- oh, I am sorry, wildlife in the vicinity of the project?

A. (BY MS. BISSONNETTE) Yes. The existing conditions, there are a variety of mammals, birds, reptiles, and amphibians in the analysis area. Some specific common mammals that are likely to occur would include the white-tailed deer, black-tailed jackrabbit, coyote, big brown bat. And some of the common reptiles would include ornate tree lizard, gopher snake or common kingsnake; and amphibians, Couch's spadefoot.

Also in the analysis area, it includes habitats that are used both seasonally and year round for both breeding and migration for a variety of migratory birds, and again, greater abundance of wildlife in the western portion of the project area.

Q. Ms. Bissonnette, could you elaborate on plant life in the vicinity of Nogales interconnection project?

A. (BY MS. BISSONNETTE) Yes. Approximately 56 percent of the land within one mile of the project area or one mile of the project is developed, and 44 percent of the land consists of natural vegetative communities. Examples of vegetation may include

one-seed juniper or prickly pear. DOE has in their draft EA a list of these species in detail.

There is also a diverse community of trees, shrubs, succulents, forbs, and grasses, and a diversity of plant species that are found along the natural washes, and, again, more diversity in the west than in the east. And mostly in the east in the developed area are weeds.

Q. So given these existing environmental conditions for plant and wildlife, could you please describe for the Committee the impacts of the Nogales interconnection project on these resources?

A. (BY MS. BISSONNETTE) Yes. The impacts would be about 35 to 59 acres of suitable wildlife habitat is expected to be disturbed. And this does not include the already disturbed Gateway substation or the access roads. If you take into consideration the substation, the substation and access roads, they will be approximately 98 to 122 acres of vegetation disturbance.

Construction activities will temporarily disturb wildlife and vegetation, and operational activities will also temporarily impact these resources. And the operational impacts are anticipated to be low and short term. And just an example of some of the operational activities may include inspection, repairs, maintenance

of roads and right-of-way, vegetation and management activities.

Q. So given these impacts, could you please discuss for the Committee members the mitigation measures that the applicants intend to apply?

A. (BY MS. BISSONNETTE) Yes. The mitigation measures, this was discussed with the Arizona Game & Fish Department and summarized in Exhibit UNS-11A, sponsored by Renee Darling and also discussed yesterday, and measures in Exhibit UNS-13B, DOE draft EA applicant proposed measures, and includes selective vegetation removal and relocation, development and implementation of an avian protection plan, noxious and invasive species management and control plan, reclamation, revegetation, vegetation, and monitoring plan, access road plan, and additional mitigation measures for special status species.

Q. Ms. Bissonnette, you mentioned special status species. Could you please describe the analyses the applicants conducted in order to determine whether those are present?

A. (BY MS. BISSONNETTE) Yes. HDR prepared a biological field report for the Presidential Permit application EA. And DOE draft EA also did an analysis mainly focusing on segment 3 of the preferred route and

access roads. And both studies consulted with Arizona Game & Fish and the U.S. Fish and Wildlife Service's IPaC trust report and surveys for special status species.

And some of the special status species with potential for concern within the project area include the Pima pineapple cactus, the lesser long-nosed bat, the yellow-nosed cotton rat, the Santa Cruz beehive cactus, the supine bean, and the large flowered blue star.

Q. Ms. Bissonnette, we have on our second screen a copy of what appears to be a map. Could you please describe that for the Committee members?

A. (BY MS. BISSONNETTE) Yes. This map shows the HDR biological survey. And starting in the east, most of this area was surveyed, basically the route segment 10 over in the western area. Some of this we had -- we didn't have right of entry for some of these access points. And no -- we surveyed for agave, Pima pineapple cactus, Santa Cruz beehive cactus and supine bean, and there was no Pima pineapple cacti documented.

And as part of the Section 7 consultation, the DOE draft EA did additional fieldwork, as I mentioned before, on Alternative Route 3. So approximately 70 percent of the 5.1 miles of transmission line

right-of-way have been surveyed. And 4.83 miles of the new upgraded access roads were surveyed. And again, no Pima pineapple cacti were documented.

Q. So Ms. Bissonnette, you discussed a little bit the results of this biological survey regarding Pima pineapple cacti and some of the other plants. Could you also summarize any additional conclusions and the result of those?

A. (BY MS. BISSONNETTE) 70 percent, as I mentioned, of the Alternative Route 3 was surveyed and there was no Pima pineapple in this area. As we get right of entry prior to construction, they will do a good faith effort to survey the remaining portions of this.

The initial survey documented 27 agave, and then 94 were documented in the DOE EA. Many of the Santa Cruz beehive cacti and one potential supine bean was documented. And there is habitat for yellow-nosed cotton rat and large flowered blue star, and there are numerous other species that were protected by the Arizona native plant law. And again, these will get into more detail in the biological assessment.

Q. So given the analyses that have been conducted for special status species, what impacts have the applicants identified and what mitigation measures do

they anticipate applying?

A. (BY MS. BISSONNETTE) Okay. The preference is to avoid impacting any special status species, but the impacts that may occur if avoidance isn't possible, it would be during clearing and ground disturbance, indirect impacts, increased potential for illegal collection, trampling, crushing from off-highway vehicle use.

And it is unlikely to adversely impact the lesser long-nosed bat due to the small number of agave impacted, and unlikely to cause significant habitat loss for the yellow-nosed cotton rat.

Q. So as far as the impacts are occurring, is there any route that is particularly preferable, based on these special species impact?

A. (BY MS. BISSONNETTE) Yes. The applicants' preferred route 3 has the lowest potential impact from ground disturbance, and it is easier access for construction than the other alternatives.

Q. Let's move on to some of the nonbiological factors. Could you please describe the existing land ownership and land use in the vicinity of the project?

A. (BY MS. BISSONNETTE) Yes. The land ownership is primarily on private land parcels, some on ADOT and the City of Nogales parcels. The land ownership ranges

from 8.6 percent to 12.8 percent for the City of Nogales land, 1.3 or 1.4 percent to 3.4 percent for ADOT, and approximately 84 and a half to 88 and a half for private owners.

The project will span SR-189 and I-19, as we looked at yesterday on the field trip. And there will be no poles placed in ADOT right-of-way, and, again, no poles sited in the Roosevelt Easement down by the border.

Q. Ms. Bissonnette, we have up on Slide 16 what has been labeled as a zoning map. Could you please describe the land uses in the vicinity of the project using that map?

A. (BY MS. BISSONNETTE) Yes. Again, I will start in the eastern area. East of Valencia sub there is multi-family residential, retail services and businesses zoned commercial around the Valencia sub and Grand Avenue area. Right here in the blue is the multi-family residential.

And then again, most of the other areas are zoned commercial along SR-189; as you get down more of the middle of the project area, zoned light industrial; and then up by the Gateway substation there is single-family zoning and multi-family residential; and then, as you move down on the CNF border, light

industrial.

Q. And you mentioned that several of these locations have been passed by on the tour yesterday. Could you describe any of those particular areas that the Committee saw?

A. (BY MS. BISSONNETTE) Yes. We looked at the Valencia sub. We looked at around the I-19 and SR-189 crossings. We went up to the Gateway substation area. And then we stopped down at the border area as well, and driving down SR-189.

Q. Near the border area were there any other additional uses that the Committee members saw?

A. (BY MS. BISSONNETTE) Mainly the light industrial area, and also the cattle crossing at the border area.

Q. Could you please describe any of the research the applicants conducted on the planned uses of land.

A. (BY MS. BISSONNETTE) Yes. The applicants contacted the City of Nogales and looked at the Nogales general plan. Under the City of Nogales zoning code, the utility structures and facilities related to the transmission of power or communications is considered permitted conditional uses, and must be approved by the planning and zoning commission. And the applicants will apply for a conditional use permit for the proposed

Gateway sub. And although the project is located within Santa Cruz, the City of Nogales is outside of the area of jurisdiction of the Santa Cruz comprehensive plan.

Q. And Ms. Bissonnette, you mentioned that ADOT owned some land in the area. Are the applicants aware of any land use plans by ADOT?

A. (BY MS. BISSONNETTE) Yes. ADOT has some plans near the project area, which include State Route 189, international border to Grand Avenue project, to address current and forecasted growth in traffic related to the recent expansion of the Mariposa port of entry and anticipated industrial development along the SR-189 corridor.

Q. Have the applicants identified if there are any private land use plans in the vicinity? And feel free to indicate on the map if you would like.

A. (BY MS. BISSONNETTE) Yes. Again, SR-189 and then private land use plans were identified. An industrial park is planned to occur on previously undeveloped land adjacent to the CNF, and other reasonably foreseeable plans include new industrial warehouses and commercial properties similar to what can currently be found in the area. So during some of the public open houses and meetings and talking with landowners, some of these areas were discussed.

Q. Ms. Bissonnette, just to summarize some of your discussion, I see that we have another map on Slide 17. Could you please describe that to the Committee?

A. (BY MS. BISSONNETTE) Yes. This is a land cover map. And the darker red areas are really showing the higher density, mainly commercial and industrial within the project area. And City of Nogales is down in here. So again, what we saw around the Valencia sub and as we made our way over to the Gateway sub along SR-189 and then up near the substation area, we saw a lot of industrial and some commercial.

Q. So given this analysis of current and future land use plans, what do you conclude regarding the Nogales interconnection project's impacts?

A. (BY MS. BISSONNETTE) The project is consistent with the city, county, state, and federal private land uses, land use plans. There is anticipated short-term nuisances, nuisance impacts from dust, noise, traffic congestion during construction. There will be minimal long-term direct and indirect impacts.

And the lines located within the existing utility corridors or in commercial areas will be compatible with the current land uses. The Gateway substation is already zoned light industrial, and we don't anticipate operation and maintenance of the

project to impact existing residences or businesses. And there will be no -- no structures will need to be demolished or relocated for the project.

Q. So given these impacts, could you please discuss briefly any mitigation measures the applicants will use to minimize impacts to this land use?

A. (BY MS. BISSONNETTE) Yes. The mitigation for transmission structures that are not -- again, not include ladders for climbing, as Mr. Beck discussed in his testimony yesterday. He also discussed that the transmission line structure from the border north would be approximately 300 feet north of the border.

During post-construction restoration, the applicants will remove and dispose of debris and comply with appropriate erosion control measures. And if determined that new or reconstruction activities should be implemented, the applicants will notify property owners and obtain permission and approvals. And when feasible and consistent with landowner preference, all gates to access roads will be locked and have signage indicating authorized uses.

Q. Let's move on to scenic areas, which we understand Member Woodall was particularly concerned about. Could you please describe the existing conditions regarding those scenic areas?

A. (BY MS. BISSONNETTE) Yes. As Renee Darling testified yesterday, desktop study, including a combination of Google Earth review, GIS data research, and windshield surveys were conducted. And the analysis incorporated the DOE draft EA's visual impact analysis of a five-mile buffer of the centerline of the alternative routes, including a one-mile foreground analysis and prior visual impact research that was done in the Presidential Permit EA.

And I would like to go over -- I think this might help to talk about the visuals that we have and the land uses in the project area. So this map shows three sort of main bubbles, again as I have been talking about, the east region or the central region of the project, and then the western portion of the project area.

CHMN. CHENAL: Yes, Member Noland.

MEMBER NOLAND: Just a quick question. This is the first time I have heard windshield analysis. Does that mean you are driving it, you are not walking it?

MS. BISSONNETTE: That's correct. So yeah, windshield analysis we usually use when we are driving by, because we don't have a lot of right of entry to properties. So we are on the road, we identify areas on the map we can get to publicly and can take a look at,

you know, get out of the car like we did yesterday at some of those locations and take photos and look at.

MEMBER NOLAND: One more thing. Can you slow down just a teeny bit?

MS. BISSONNETTE: Okay.

MEMBER NOLAND: I am having trouble keeping up with you, and I can only imagine what it is doing to Colette. Thank you.

CHMN. CHENAL: Thank you, Member Noland.

Member Woodall.

MEMBER WOODALL: I may have missed this, but in Exhibit E to the application, there is an analysis of scenic areas relating to the Kantor to Gateway -- excuse me -- upgrade. And the conclusion is expressed, it is on page E-14 of the application:

In conclusion, the visible change that would result from project implementation would be minor as the new poles would be similar in height and material to the existing transmission line. Scenic views of the area have already been affected, and no substantial disruption to major views would result from an upgrade of the transmission line within any of the proposed alignments.

And that is your conclusion?

MS. DARLING: Yes.

MEMBER WOODALL: Okay. What I wanted to ask was: Are there going to be -- how much taller than the existing poles will the new poles be? That's question one.

MS. DARLING: I am not positive of the height of the existing poles. Ed Beck may know.

MEMBER WOODALL: At some point. We don't need to disrupt.

And then the other question I would have is: Are they going, because of the spacing between the lines, are there going to be more or less structures in total than what is there now.

And Mr. Beck can address that at some point. It is not a burning issue for me. But since we did have public comment indicating that it would be helpful to have the galvanized, and we heard Mr. Beck say there is an expense there and a safety issue, I wanted to get a sense of what is the true before and after going to look like, so...

MS. DARLING: Right. I think I know, but I think it would be better if Mr. Beck said for sure.

MEMBER WOODALL: That would be great. I am sure there is going to be some cleanup at some point. So thank you very much, ma'am.

BY MS. MORRISSEY:

Q. So just to continue with your testimony, Ms. Bissonnette --

CHMN. CHENAL: Excuse me. Member Hamway has a question.

MS. MORRISSEY: I apologize.

MEMBER HAMWAY: Yes. Ms. Bissonnette, does HDR or you have an opinion about the color of the poles? Do you ever make recommendations about what is the least visual impact? I mean I know TEP has a standard, and that's Corten, but I am just wondering if you, if your company offers an opinion about that.

MS. BISSONNETTE: We have not offered opinions in the past. We have usually relied on what the utilities have suggested.

MEMBER HAMWAY: Okay. Thank you.

CHMN. CHENAL: Let me just ask a follow-up question, Ms. Bissonnette. Your testimony so far has dealt with the Nogales interconnection project --

MS. BISSONNETTE: Correct.

CHMN. CHENAL: -- as opposed to the upgrade portion that we toured today, correct?

MS. BISSONNETTE: Correct, yes.

CHMN. CHENAL: And I believe that the public -- the speaker who made the public comment was commenting on the upgrade portion, I don't want to put words in her

mouth, but the Wilmot portion, whereas your testimony thus far has been confined to the interconnection project in Nogales, correct?

MS. BISSONNETTE: Yes, that's correct.

CHMN. CHENAL: All right. Thank you.

MEMBER HAMWAY: Then let me ask my question to Ms. Darling. Does -- how does TEP or UNSE determine what type of pole color to use or material to use, galvanized versus Corten?

MS. DARLING: Again, I think I know the answer, but I think Ed Beck would be better able to answer that question.

CHMN. CHENAL: Please proceed.

MS. BISSONNETTE: Okay. Thank you.

I would like to keep up the map and then go to the slides that have the photos, because I think that best depicts the visual of the Nogales interconnect.

So starting with the first photo here on the left, that's looking northwest across I-19 from the project area. And on the map, it is somewhere right around here looking across I-19.

The second photo over here is the Valencia sub, which is the eastern portion of the project. And again, that was our first stop on yesterday's bus tour.

And the west, or the third photo here is west of

the Valencia sub. And this is probably just past the barricade that we couldn't go into yesterday where we turned around in the Home Depot parking lot. I think this was taken just west of there.

Now I will go over to the middle section of the project area. This is the Nogales Wash, which was the second stop. And this is around the segment 5 area. So just some different photos of the wash -- again, dry for most of the time -- and then some of the rolling hills around that area.

This set of slides is near the border along the CNF and, again, some of the natural rolling hills and vegetation. And this slide is looking west into the CNF along the western portion of the project.

The last couple of photos, again, this was our final stop yesterday morning. And this is at the border. This is the livestock crossing. And when I was out there prior, we were able to see the cattle coming through the door of the border crossing or border fence and down into the -- to the cattle area that we saw yesterday.

And then this photo is looking east towards Mariposa Road, again, near the border area, so looking towards Mariposa Road.

BY MS. MORRISSEY:

Q. So Ms. Bissonnette, given the existing views, what impacts to visual resources do the applicants expect?

A. (BY MS. BISSONNETTE) The impacts will vary depending on terrain, vegetative cover, distance the viewer is from the project, and then the viewer sensitivity. There is no officially designated scenic areas that will be affected by the project, and unlikely to affect the background views of the Patagonia and the Tumacacori Mountains.

And the people driving or walking into or out of the western border of the CNF would see the transmission line.

And again, the western portion of the project would be the most sensitive as far as visuals to the project, and unlikely effect for users of the Pajarita Wilderness area. This area is located ten miles from the alternative routes within the CNF.

Q. And it sounds like we covered a little bit of this earlier, but if you would just like to give a few examples of some of the mitigation measures the applicant is willing to apply to reduce impacts to visual resources and scenic areas.

A. (BY MS. BISSONNETTE) Yes. Temporary access roads and staging areas will be vegetated following

construction, and construction waste will be removed regularly to maintain short-term waste.

The transmission lines will parallel the existing right-of-ways to the extent practical. And I believe we discussed yesterday in Mr. Beck's testimony that the preferred route, route 3, has the most paralleling of existing either transmission or roadways of existing lines or roads.

And when the right-of-way is located adjacent to the CNF, we will work with the CNF to site the poles and the towers. And structures will have nonreflective finish and, per Mr. Beck's testimony yesterday, utilize self-weathering material to blend in with or complement the surrounding landscape. I think those poles around the border area and this project are a good choice.

A. (BY MS. DARLING) I just wanted to add that we met with CNF two times, once with HDR, but once when we were preparing the DOE EA, and their landscape architect was part of that meeting. The line is not on the forest, so they were happy that we were consulting with them at all. But they are aware that the poles are proposed to be self-weathering steel and they were okay with that. They were happy they weren't, you know, reflective and just asked that we work with them on the micro-siting once we get to the engineering stage of the

project. I just wanted to add that.

CHMN. CHENAL: Thank you.

Member Jones.

MEMBER JONES: Thank you, Mr. Chairman.

My question has to do with the self-weathering poles as presented, that the rust looking color would be the most appropriate to blend with the landscape.

My question is: Are there other colors of self-weathering poles that do not require a lot of maintenance; and, two, depending on which time of the year you are looking at the landscape, which one is the most appropriate for the landscape.

CHMN. CHENAL: Let me ask, Member Jones. Is your question with reference to the Nogales interconnection portion, which is more in the Nogales proper, or does it refer to the upgrade portion, or both?

MEMBER JONES: Mr. Chairman, both.

CHMN. CHENAL: Okay. Because there could be different answers, obviously.

MS. BISSONNETTE: We don't know. It is not our specialty.

MEMBER JONES: Mr. Chairman, do I get a prize for stumping the panel?

CHMN. CHENAL: You get a big prize. You get to

dance for us later up on the table.

MEMBER JONES: That's really not visual.

CHMN. CHENAL: Will there be some testimony from one of the applicants? We can get back to address this, the issue of the poles, the coloring and the locations.

MS. MORRISSEY: Yes. We will get back to you on that and follow up.

CHMN. CHENAL: Thanks very much. It is not often that the panel is stumped.

MS. MORRISSEY: We will make sure you get an answer to that question, Member Jones.

MS. BISSONNETTE: Yeah, I think with anything visual, it is really sort of in the eye of the beholder, but...

CHMN. CHENAL: It is visual, it is costs, it is a lot of different things. Maybe Mr. Beck, who is the more appropriate person to answer that.

BY MS. MORRISSEY:

Q. So Ms. Bissonnette, to continue with your testimony, you mentioned that recreation is another one of the factors that the Committee analyzes. Could you please describe the existing recreational opportunities near the Nogales interconnection project?

A. (BY MS. BISSONNETTE) Yes. There is no portion of the Nogales interconnection project that will be made

available to the public for recreational purposes. And the DOE draft EA indicated that the recreation in Santa Cruz County occurs primarily outside of the urbanized portions of the project area in two city parks, the CNF, and the Pajarita Wilderness.

Also, the project -- or the de Anza National Historic Trail runs close to the project just kind of north of the Gateway substation area. There are no preserves, designated trails, or other designated recreation sites in the vicinity of the project.

Q. And so will the project have any impact on the Coronado National Forest?

A. (BY MS. BISSONNETTE) No, other than the visuals for people that are along that western portion.

Q. Okay. And for the Pajarita Wilderness?

A. (BY MS. BISSONNETTE) No, because that is ten miles inside the CNF.

Q. Ms. Bissonnette, could you please describe the cultural resource analyses that were conducted for the project?

A. (BY MS. BISSONNETTE) Yes. Based on the available data, no known historic properties would be directly or indirectly affected by the project.

And there were desktop studies, records reviews for the Presidential Permit EA and the DOE draft EA,

along with the Class III Survey conducted for the project. Similar to the biological field surveys, we surveyed all areas within where we could get right of entry. There were 206 acres of the 276 total acres that were surveyed, which is about 75 percent.

Q. And did the applicants rely on any other external survey resources?

A. (BY MS. BISSONNETTE) Yes. We relied on ADOT survey information as well.

Q. What impacts did these cultural resource surveys identify?

A. (BY MS. BISSONNETTE) What we found are the findings from the studies were that there were six reported sites located within a quarter mile of either side of the right-of-way. And two sites are either determined or recommended eligible for the National Register of Historic Places, and those were the New Mexico and Arizona Railroad and the Tucson Nogales Highway. And those are located just to the east of the Valencia substation. And because of the Valencia substation and everything in that area, it was noted that these -- that the project would not alter the setting associated with the railroad or with the highway.

Three sites are recommended not eligible for

NRHP, and one site is unevaluated. There are no resources known to be important to the American Indian Tribes in the project area. So it is recommended that no further surveys for the project occur.

Q. And could you just give a few examples of some of the mitigation measures that the applicants will apply if any of these cultural resources are discovered?

A. (BY MS. BISSONNETTE) Yes. The mitigation would be good faith effort to survey, once we get right of entry, prior to construction for the areas that have not been surveyed. And the applicants will site ground-disturbing activities and other proposed project components to avoid or minimize direct impacts on cultural resources.

Along with the applicants' construction contractor, the applicants will provide cultural resource sensitivity training to all construction personnel prior to construction. And the applicants have developed and will implement a construction monitoring and unanticipated cultural resource discovery plan if previously undocumented buried cultural resources are identified during ground-disturbing activities. And then, if that happens, all work in the immediate vicinity of the discovery will be stopped until further evaluation.

Q. And Ms. Bissonnette, we kind of skipped over this a little bit, but I see there is another slide up and it appears to show a map. If you could just briefly describe to the Committee members what that shows.

A. (BY MS. BISSONNETTE) Yes. Again, this map shows where HDR did their Class III Survey. And primarily I will go over areas that were not surveyed due to, again, right of entry access. And that is mostly on the western portion of segment 9, along 10, 10, 11, and 13. So it is a little hard to see on this slide, but the tones are a little bit browner tones.

CHMN. CHENAL: Member Hamway.

MEMBER HAMWAY: So you didn't survey because you couldn't get entry?

MS. BISSONNETTE: Correct.

MEMBER HAMWAY: Who is the landowner?

MS. BISSONNETTE: We didn't have right of entry from the landowners to survey at the time that we did the Class III Survey.

MEMBER HAMWAY: Okay. So is it private land?

MS. BISSONNETTE: Yes.

MEMBER HAMWAY: I can't remember.

MS. BISSONNETTE: Yes, on private land. And again, we would make a good faith effort to get back and survey the preferred route 3 areas that had not been

surveyed in the past.
BY MS. MORRISSEY:
Q. And to clarify, if another route were chosen, would the applicants also make that same good faith effort?
A. (BY MS. BISSONNETTE) Yes.
Q. And finally, Ms. Bissonnette, could you please discuss the noise factor that is also analyzed by this Committee.
A. (BY MS. BISSONNETTE) Yes. The impacts from noise would be during construction, the short-term noise, variable and intermittent. And it would be during daytime hours. The limited impacts to sensitive -- it would be limited impacts to sensitive receptors.

And during operation and maintenance activity, long-term noise may include corona and transformer noise while transformers are in use inside the Gateway substation, and minor impacts to ambient, to ambient soundscapes.

The mitigation that would be applied, the applicants would mitigate the substation noise by designing equipment to comply with the City of Nogales noise ordinance.
Q. So Ms. Bissonnette, given that you have just

discussed all those factor, could you please summarize your conclusions?

A. (BY MS. BISSONNETTE) Yes. The conclusions to my testimony are there are -- there is little to no adverse impacts on environmental factors to be considered by the Committee; anticipated to cause only minimal impacts to biological resources in the vicinity of the project due to implementation of mitigation measures; will not significantly impact groundwater, wetlands, streams, or floodplains; and the applicants have proposed mitigation measures that will reduce the impact of the project on special status species in its vicinity; and the project is not proposed to cross through designated or proposed critical wildlife habitat.

The project is consistent with applicable land use plans and policies and minimal long-term direct and indirect impacts on current or future land uses. And based on current survey data, the project will not directly or indirectly affect known historic properties. And the project is not anticipated to significantly impact use or enjoyment of recreational areas or scenic views, and will generate only minor long-term impact to ambient soundscapes.

MS. MORRISSEY: And with that, Mr. Chairman, we

offer Ms. Bissonnette to any additional questions from the Committee members.

CHMN. CHENAL: Member Riggins.

MEMBER RIGGINS: Thank you, Mr. Chairman.

I had a question regarding the portions of segments 4, 5, and I guess a little bit of 9, that run through the wash. I noticed you had noted that the wash, being ephemeral and intermittent, at times had the potential for runoff. I know on our field trip yesterday I noted the portion where we stopped -- and I don't know if that was Mariposa or Nogales Wash.

MS. BISSONNETTE: Mariposa Wash.

MEMBER RIGGINS: Okay. I noticed on the southern bank there was a portion that has, it looked like, some erosion control with rocks placed for erosion control. I know the pole locations are still conceptual.

I was just wondering, is there any special considerations as far as erosion control and runoff? Because this path follows, especially that segment, 4 and 5 and 9 for the Alternative 3 route, is there any special considerations as far as erosion and runoff for those washes?

MS. BISSONNETTE: The applicant will use best management practices for erosion control measures. I

don't know if there is anything else that you want me to add to that. Special engineering for the pole design as well.

MEMBER RIGGINS: Okay. Would there be an offset within that wash? I know they were talking about not putting poles, you know, halfway up on hills. But I was just wondering, the poles possibly wouldn't be located directly in the wash, or is there any offset at all?

MS. BISSONNETTE: There will be an offset, but --

MS. DARLING: The poles will be located outside of the ordinary high water mark, and also be on the north side of the wash, so closer to the industrial park, not up on the hills though. But they will be offset from and on the bank. Because, I know it was hard to see where we stopped, but it was the only place we could stop, there is quite a bit of flat area between the bank and the back side of the industrial park there.

MEMBER RIGGINS: Right. I noted that, too. And I assumed, but I just wanted to make sure.

And I also had a similar question. I think, Ms. Darling, you can answer it. This was on our field trip we had. We had noticed, I think it was when we stopped at your last portion and looking towards the Kantor substation, and you noted that, I think either

that or Mr. Beck noted, that the runoff -- that roads would be improved. Would similar consideration be taken into effect for the access roads that go towards the substation or to different routes for new access roads?

MS. DARLING: Correct. So we will use section nationwide permits, Section 404 nationwide permits for any improvements to the roads that cross the washes. So the banks may need to be pulled back temporarily and then the contours would be restored --

MR. RIGGINS: Okay.

MS. DARLING: -- per the conditions of the nationwide permit.

MEMBER RIGGINS: Okay. Yes. Thank you.

MS. DARLING: You are welcome.

CHMN. CHENAL: Member Jones.

MEMBER JONES: Thank you, Mr. Chairman.

During the tour of yesterday, at the stop you were referring to, Mr. Beck had indicated that the pole would be not on the flat place where we were with the bus, but on an incline to some degree but not in the wash. He also indicated at that time that they may elevate the foundation so as to mitigate erosion impacts on the pole.

The only remaining question I had: If that is the case, will that elevate the pole as well? Or is

it -- how is that taken care of? If you elevate one pole, then I guess you have to elevate several poles, or it is going to look like this.

MS. BISSONNETTE: That's a Mr. Beck question.

CHMN. CHENAL: I thought Member Riggins was making a valiant answer to stump the panel. But no match for Mr. Jones today.

MEMBER JONES: I am just aiding and abetting him.

CHMN. CHENAL: I had a couple questions. I may be asking the impossible, but forgive me for being a lawyer, but I have a couple questions on some of your mitigation factors, or your mitigation items that you are going to, that you are going to follow.

Not, I am not so much concerned about what they are, but is there some document or some, other than a condition that we impose -- for example, you are going to create a construction monitoring and unanticipated cultural resource discovery plan. You are going to provide sensitivity training for construction personnel prior to construction. There is a number of mitigation measures that you are proposing. But other than saying you are going to comply with them or do them, where is it written that you will obligate yourself or applicant will obligate itself to do so.

MS. BISSONNETTE: Those would be conditions in the permit, and --

CHMN. CHENAL: The permit being the CEC permit?

MS. BISSONNETTE: Presidential Permit.

CHMN. CHENAL: The Presidential Permit. Okay. I will ask some follow-up questions on that, but go ahead.

MS. BISSONNETTE: Okay. And we are preparing the cultural resources discovery plan; that's in a draft form right now. And I believe that's back -- we submitted that back to DOE to take a look at.

CHMN. CHENAL: And that particular plan is also required by the Presidential Permit?

MS. BISSONNETTE: Yes.

CHMN. CHENAL: Okay. Forgive me, but is the Presidential Permit, it has not been approved yet, has it?

MS. BISSONNETTE: It is in the draft EA stage right now.

CHMN. CHENAL: Okay. And do you recall the timetable when you anticipate, the applicant anticipates receiving the Presidential Permit, Mr. Guy?

MR. GUY: It should be relatively soon after, assuming we are granted a CEC in this proceeding, because they want to see which routes are selected.

CHMN. CHENAL: And is the draft Presidential Permit an exhibit? I just don't recall.

MR. GUY: There is not a draft Presidential Permit itself. There is a draft EA, which is an exhibit. That is one of the Exhibit Bs to the application.

CHMN. CHENAL: Maybe this is a question to the applicant, but will there be a condition that will obligate the applicant to perform these mitigation measures?

MR. GUY: I think our form of CEC now has a paragraph that requires the applicant to comply with all ordinances, regulations, plans, orders of agencies. So once the Presidential Permit is issued, there is a condition that requires the applicants to comply with that.

We are actually considering also proposing a condition that would commit the applicants to comply with the mitigation measures contained within the draft EA. We believe that would actually capture what you are asking about now. It would also capture all of the measures that are discussed in the Arizona Game & Fish Department letter that's attached to Ms. Darling's testimony.

CHMN. CHENAL: Very good, because that was going

to be my next question to Ms. Bissonnette.

Go ahead.

MS. BISSONNETTE: I just wanted to add to that. I was just confirming with Ms. Darling. But yesterday Ms. Darling discussed the environmental monitors. And part of their job, or a big part of their job is to have a list of all the conditions and all the compliance that we talk about in the environmental assessment to make sure that during construction that those conditions are being complied with as well.

CHMN. CHENAL: Okay. My last question is to Ms. Bissonnette. And that is: Have you had occasion, ma'am, to review the letter that was sent from Arizona Game & Fish to our Committee? It is Exhibit 1, I believe, to Ms. Darling's testimony. What I would like to do is to take -- to review it and see if you have any objection to any of the requests of the Arizona Fish & Game.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Yes, Member Noland.

MEMBER NOLAND: Mr. Chairman, on that letter, I guess I am a little confused, because the letter says during the course of our conversation, we agreed upon the following measures to avoid, minimize, and mitigate impacts from the project. And I don't know what you are

asking for there. I am confused. Because I wanted to really drill down on this with your concerns from yesterday.

So I am really having trouble understanding what you want from this that we haven't done in the past with the requirements of Fish & Game and the requirements under state law.

CHMN. CHENAL: Because it is a -- Fish & Game has specific concerns, I just, I think we should consider them. I know, I know we are. I just, before we impose these conditions, if that's the decision of the Committee, impose the requests and the mitigation measures that Fish & Game is requesting, I just wanted to ask, well, either Ms. Bissonnette or Ms. Darling, if they object to any of those items.

There is a laundry list of them. There is quite a few of them. And I just -- before we impose those on the applicant, I just would like to know if the applicant, if the expert on behalf of the applicant for the environmental mitigation measures has heartburn over any of them.

MS. DARLING: Well, as one of the applicants, Ed Beck and I are the ones that met with Arizona Game & Fish, and we developed these together. So we are for both projects and have looked at them as well. We are

good with all of the conditions.

CHMN. CHENAL: Okay.

That was my concern, Member Noland.

MEMBER NOLAND: Mr. Chairman, I know it is your concern, but I was just trying to understand. I thought the letter said agreed and -- met and agreed on those.

CHMN. CHENAL: Well, when we get to the point of making a condition out of it, I just -- I didn't want to have any discussion from the applicant that there is a problem with any of them. I just wanted to get that out of the way right now.

MEMBER NOLAND: Okay. Thank you.

MEMBER DRAGO: I do have --

CHMN. CHENAL: Member Drago.

MEMBER DRAGO: I think with regard to the letter, it might help if we get some perspective from the applicant the impetus to have the meeting with a state agency.

Because there are a lot of requirements that you all will have to comply with, and this just appears to be a one off. The letter came to the Committee. So if someone could just develop a framework on how the letter came about and why, because I think the Committee is trying to understand what do we do with this letter now. So thank you.

MS. DARLING: So Arizona Game & Fish Department initially sent a letter about three or four weeks previous to that in response to the draft environmental assessment for the Nogales interconnection project. Based on that letter, very similar to this letter, we requested to meet with them to better understand what their concerns were regarding both projects.

And they also asked us about how they could make sure that their concerns were addressed regarding the Nogales Tap to Kantor upgrade project, because there wasn't the same type of comment period to a hearing for this Line Siting Committee so they were unsure how to go about doing that.

So we met with them. We went through their previous letter and discussed their concerns, and came up with these measures, which many of them, most of them are things that we already do.

So that's -- does that answer your question about how it came about?

MEMBER DRAGO: Yes. But what made them come back to you? Were you all required to submit something to them for review and disposition?

MS. DARLING: So they were notified that the draft EA was out for public comment. And they sent a letter to DOE with the initial letter, not this one, the

initial letter with DOE, with their comments, which will be in the final EA, that letter. We contacted them after the letter was sent and asked to meet with them so that we could understand all of their concerns and develop a plan.

MEMBER DRAGO: Got you. Thank you.

CHMN. CHENAL: Sure. Good.

Okay. No further questions, I think, from the Committee.

MS. MORRISSEY: And we have no further questions as the applicant.

CHMN. CHENAL: Do any of the -- Mr. Jacobs, do you have any questions of the panel, sir?

MR. JACOBS: No, I don't, Mr. Chairman.

CHMN. CHENAL: Okay. Mr. Hains, Ms. Davis, any questions?

MR. HAINS: Staff has no questions for these witnesses.

CHMN. CHENAL: Okay.

MS. MORRISSEY: Mr. Chairman, we would ask to excuse the panel.

CHMN. CHENAL: They are excused.

It is 2:30. Who is the next -- let me ask who the next witnesses would be.

MR. GUY: So, Mr. Chairman, the applicants are

complete with the direct case. I know we have a number of follow-up items, four or five, half a dozen. We would probably, during a break, need to assemble that list and then bring up the appropriate witnesses. But at this time, I think we would be moving over to Staff.

CHMN. CHENAL: All right. Well, it has been an hour and a half. Maybe we should take a break, you know, 15-minute break, our afternoon break. That will allow, you know, the applicant to marshal their forces and Staff, get ready for their witnesses.

Will that give enough time, Mr. Hains, for your witnesses, to take them, you know, in 15 minutes, get them out of here? That's what they want to do, to get back?

MR. HAINS: I hope so. I hope so.

CHMN. CHENAL: Okay. All right. Let's take our break.

(A recess ensued from 2:27 p.m. to 2:59 p.m.)

CHMN. CHENAL: All right. This is the time to resume the afternoon hearing. Are there any housekeeping items we should address before we turn this over to Mr. Hains and Ms. Davis?

(No response.)

CHMN. CHENAL: Okay. I don't know if it is going to be you, Mr. Hains, or Ms. Davis.

MR. HAINS: Do you want to swear in the witnesses?

CHMN. CHENAL: Yes.

Does the panel, do you prefer on oath or affirmation? Or tell me what you prefer.

DR. C-EMORDI: Oath.

CHMN. CHENAL: Mr. Gray.

MR. GRAY: An oath.

CHMN. CHENAL: Would you please both raise your right hands.

(Nonso Chidebell-Emordi and Bob Gray were duly sworn.)

CHMN. CHENAL: Thank you very much.

Mr. Hains.

NONSO CHIDEBELL-EMORDI and BOB GRAY, called as witnesses on behalf of ACC Staff, having been previously duly sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

BY MR. HAINS:

Q. Could I have you please give your full name for the record.

A. (BY DR. C-EMORDI) My name is Nonso Chidebell-Emordi. Last name Chidebell, hyphen, Emordi, C-H-I-D as delta, E-B, as in bravo, E-L-L, hyphen E-M, as in Mike, O-R-D, as in delta, I.

Q. Thank you.

And by whom are you employed and in what capacity?

A. (BY DR. C-EMORDI) I am employed as an electric regulatory engineer by the Arizona Corporation Commission.

Q. And in your capacity as an electrical engineer, were you assigned to evaluate the current application?

A. (BY DR. C-EMORDI) Yes.

Q. Did you prepare a slide presentation to accompany your testimony here today?

A. (BY DR. C-EMORDI) Yes, I did.

Q. Briefly could you describe your duties as a Staff engineer.

A. (BY DR. C-EMORDI) Well, in addition to providing engineering support for rate cases, certificates of environmental compatibility, certificates of convenience and necessity and financing cases, I provide technical analysis for dockets before the Commission. And these include interconnection rulemaking, Biennial Transmission Assessment, integrated

resource planning, and various planning forums. And most importantly, I monitor the integrity of the transmission and distribution grid in Arizona.

Q. Thank you.

And I believe the next slide would speak to, if I could have you describe, your professional and education background.

A. (BY DR. C-EMORDI) Yes. I have a bachelor's degree in chemistry, as well as computer engineering science from the City University of New York. I also have a master's of science in engineering, in civil and environmental engineering, from the University of Michigan Ann Arbor. I have a doctorate in sustainable energy systems from Arizona State University. And since 2015 I have been employed at the ACC as an electrical engineer.

Q. And what is the purpose of your testimony here today?

A. (BY DR. C-EMORDI) The purpose of my testimony is twofold. The first is to establish a hearing record for the Commission's consideration of the balancing test. And second is to provide Staff's technical expertise on the CEC, the project identified in the CEC.

Q. And briefly could you describe what the balancing test is you are referring to?

A. (BY DR. C-EMORDI) The balancing test -- if you go two slides forward, I believe, yes. The balancing test requires the Commission to evaluate the public interest need for adequate, economic, and reliable electricity supply while minimizing impacts to Arizona's environment and ecology.

Q. And what are the components of the balancing test that you are evaluating as part of your testimony here today?

A. (BY DR. C-EMORDI) As an engineer I am evaluating the reliability portion, the adequacy, reliability portion of the balancing test.

Q. And with regard to the projects, what is your understanding of what the projects that we are evaluating here entail?

A. (BY DR. C-EMORDI) Well, based on the application filed by both applicants, my understanding of the project is that the CEC is for two projects. The first is an upgrade to the existing transmission line, and the second is an interconnection project that has three new builds.

So if I am to expound further, in the next slide, as described by the applicants, the upgrade of the existing transmission line is a 27 and a half mile 138kV transmission line. And the upgrades entail

conductor replacements, steel pole replacements. Staff's understanding of the project is that this particular project is constructed, owned, and operated by UNSE.

The second project, which is the interconnection project on the next slide, I believe, the Nogales interconnection project, has three new builds. One is Gateway substation, and the other, two new transmission lines. Staff's understanding of this project is that the Gateway substation would have two substations on it, one 138kV substation belonging to UNSE, and one 230kV substation belonging to Nogales Transmission. And in addition to the 230kV substation belonging to Nogales Transmission, there is going to be a 150 megawatt bidirectional high voltage direct current converter that would be owned by Nogales Transmission.

The other new builds are a three-mile, I believe, a three-mile 138 double-circuit transmission line that is owned by UNSE. And one circuit would connect to the Valencia transmission line at a point 1900 feet north of the Valencia substation, and the second circuit would connect to the Valencia substation. The other new build is the two miles of single circuit with double circuit capable kV line that connects to CFE, or CENACE, at the U.S.-Mexico border.

If you go back one slide.

So that's a schematic at the terminal node of the UNSE line, built Valencia line. This schematic line shows the Sonoita substation just north of the Valencia substation. And so the new build, the new transmission build would be connecting just north of Valencia substation, as Staff understands the project.

Q. Thank you.

And with that, what did you conclude or what did you find with regard to your evaluation of the reliability and adequacy components of the application?

A. (BY DR. C-EMORDI) Well, Staff looked at the needs and benefits of the project. And I believe that upgrades on the Nogales Tap to Kantor line will increase local and regional transmission system reliability. And, in view of the fact that the Vail to Valencia line is a radial line, the potential created by the Gateway substation provides for a new power source for the Nogales area. So Staff does believe that this project would increase UNS's system reliability in the Nogales area and Santa Cruz County as a whole.

The way Staff assessed the project is based on the system impact study that was provided by the applicants. Now, the system impact study looks at the impacts on the transmission grid of the project. And

based on Staff's evaluation, we don't choose high voltage converters that were studied in this particular impact study. And of the two, one is a line committed to a converter and the other is a voltage source converter. And Staff believes that the VSC would provide voltage stability and is an economical option for this project.

Secondly, the results of the system impact study identified both voltage and thermal upgrades that are required for the connection project to go. In the conversations with the applicants' representatives, they indicated that the time frame of these upgrades that are required will be moved up to support the interconnection project.

One of the things that was identified in the study was the potential issue of overload in one of contingency scenarios that are studied for areas. And this would be at the Saguaro Electric District 5 115 substation. There is an overload of 1 percent. And Staff believes this would not have an adverse impact on grid safety.

The buffer zone is typically plus or minus 5 percent for safe operation of the grid. So the applicants have indicated that the report showing that particular overload in that contingency scenario has

been provided to WAPA for review.

Q. And in the course of your evaluation, have you arrived at any conclusions with regard to the application?

A. (BY DR. C-EMORDI) Yes. I believe that the applicants have met the need justification burden, and that the upgrade on the Nogales Tap to Kantor line will improve system reliability in the UNSE service territory. I mean especially in view of the fact that the Vail to Valencia line is a radial line, the Gateway substation provides, like I said, a potential for an additional power source in the case of an outage. And so it is Staff's belief that this project is useful and would help grid reliability, like I said, in the UNSE service territory.

Now, it is also my conclusion that the project, as filed, does not have any negative impact on system reliability during normal N-1, that's a single outage of a system element, or multiple contingency scenarios.

Q. And is Staff also proposing a recommendation with regard to a condition to the CEC regarding reliability standards to be applied?

A. (BY DR. C-EMORDI) Yes. The standard conditions or similar language proposes that the applicants will follow WECC, NERC planning standards as approved by

FERC, and NESC construction standards should be included somewhere in the language of the CEC. I believe that, not to take the words out of your mouth, I do believe that the applicant has proposed similar language. I have reviewed it and am comfortable with their version of the language.

Q. Thank you. And you anticipated my one question.

There was one other question that was not addressed in the slides but was directed towards Staff, with regard to the various questions posed by Mr. Magruder in his intervention request. Were you present yesterday for the testimony of Mr. Ed Beck?

A. (BY DR. C-EMORDI) Yes, I was.

Q. Were you present for the portion of his testimony where he went through question by question in response to the questions of Mr. Magruder?

A. (BY DR. C-EMORDI) Yes, I was.

Q. Did you have anything you wanted to add, clarify, contradict, whatever the case may be, with regard to any of the responses provided by Mr. Beck?

A. (BY DR. C-EMORDI) While Mr. Beck went into extensive detail in answering the questions, one of the issues Mr. Magruder raised was the possibility of a cascading outage from Mexico affecting the U.S. grid or affecting UNSE's grid. And it is Staff's belief, based

on the assessment of the system impact study, that the high voltage direct current converter does act as a circuit breaker. So it would mitigate any such occurrence cascading from CFE, or CENACE, back into UNS's territory.

Q. And with that clarification, did you generally agree with the rest of the responses provided by Mr. Beck?

A. (BY DR. C-EMORDI) Yes, I did.

Q. Okay. Did you have anything else you wanted to add to your testimony at this time?

A. (BY DR. C-EMORDI) Not at this time, no.

MEMBER WOODALL: Thank you.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: Ms. Emordi, yesterday the applicant explained to the Committee that one of the purposes for this project was to allow bilateral exchange of energy between the two countries, but that the difficulty associated with that was some phase difference between the electricity generated in each country, and that this would be ameliorated by the high voltage DC converter, but we didn't get much detail on that.

I was wondering if you could explain, A, why there is that difference in the electricity generated

south of the border and our electricity, and B, how that is smoothed out by this converter. Thank you.

DR. C-EMORDI: Chairman, Member -- I can't see.

MEMBER HAENICHEN: Haenichen.

CHMN. CHENAL: Haenichen.

DR. C-EMORDI: I will do my best to answer your question.

So we use the same frequency both in the U.S. and Mexico. However, the cycling of the frequency is slightly off phase, so the phasing is just slightly off in Mexico. And so what happens is that when you convert from DC, AC to DC, DC has no phase. And so converting from the UNSE territory AC to DC and then converting back to AC, you can sync up the phase with what is going on the Mexican side of the transmission system. So the DC system, AC/DC, AC converter does get rid of that phase difference that occurs across different electrical systems.

MEMBER HAENICHEN: Okay. But I would like to know why that phase difference exists in the first place. And could that just be ameliorated by making some changes in the way either country generates their electricity?

DR. C-EMORDI: I am sorry. I cannot speak to how the Mexican transmission authority operates their

grid, but I am sure that if you ask the applicants, they could expound a bit more on that.

MEMBER HAENICHEN: Thank you.

DR. C-EMORDI: Thank you.

CHMN. CHENAL: Yes, Ms. Emordi, I have one question. With the reliability, your testimony is that this project, both portions will upgrade the reliability of the supply of electricity to, say, the Nogales area.

But I remember from the testimony of Mr. Beck that there is still -- the Valencia substation is still the common denominator to both of the lines that will now be serving Nogales, the Vail to Valencia and the Vail to Gateway and the Gateway to Valencia line.

So when there are outages that occur, can you give us a feel for the kind of outages or problems that develop on lines versus substations? It always seems that when I hear about an electrical storm or something that comes into the Phoenix area, there is lines going down, but then there is transformers that blow.

Can you give us a -- there still seems to be a reliability problem because there is only one substation, Valencia substation. So I guess what I am -- I am not asking this in a very articulate fashion. But it does improve reliability, but there is still a problem with there being one substation. So maybe you

could just agree.

DR. C-EMORDI: I am glad you asked that question because I had wanted to expound on that a little bit.

If you go back a couple slides, the one with the schematic with the substation. Yes, over here.

So right now the primary power source is a plant at the Valencia -- just close to the Valencia substation. So if there is an outage at the Valencia substation, the entire Vail to Valencia line experiences an outage. Now, with the new Gateway substation, UNSE Gateway substation, there is a potential that you can feed in power from Mexico. Now, that doesn't solve the problem of the outage in the Valencia area; however, all the UNSE ratepayers north of that substation won't have an outage. So you would have power there while they are resolving the issue at the Valencia substation.

Now, in my conversations with Ed Beck, he had indicated that they are working on increasing the distribution circuitry infrastructure indicated with Gateway substation so that an outage at Valencia does not equal an outage for the entire Nogales area.

So this new build would help in ameliorating the extent of the impact of an outage, because, as it is right now, if anything happens at Valencia, the entire radial line is affected. But this would just reduce the

impact to all the UNSE customer on the entire transmission line.

I hope that answers your question in some fashion.

CHMN. CHENAL: It does. It is helpful.

So if there is an outage at Valencia, with the Gateway substation there is a possibility to bring power up from Mexico to feed the UNSE customers north of Valencia?

DR. C-EMORDI: That's correct.

CHMN. CHENAL: The other comment you made was that with some additional improvements to the Gateway substation, there still -- even if there was an outage in Valencia, there is still a way to bring power through Gateway to serve the Nogales customers?

DR. C-EMORDI: If --

CHMN. CHENAL: I don't understand that, because I still see on the schematic that all power seems to go through Valencia. So how, from Gateway, to serve Nogales?

DR. C-EMORDI: So there is a 138. There is supposed to be -- there is a planned 138kV substation in Gateway. One circuit goes from that particular Gateway substation to a point north of the Valencia substation, and the second circuit goes from that Gateway substation

to Valencia.

Now, if there is an outage in Valencia, then the one, the 230kV substation that is owned by Nogales Transmission can feed power through the high voltage DC converter from Mexico to the other circuit that is connected north of the Valencia substation. So you still have an outage south, but the customers in the northern portion of that radial line would have power. That's my understanding of the project based on conversations with the applicant.

CHMN. CHENAL: Okay. Thank you. And I understand what you are saying, not nearly as well you do. But I -- I asked you to recommend what fish to get at the restaurant the other night. I guess I had no idea. It was a good --

Member Drago.

MEMBER DRAGO: Yeah. Hi. I got a question on the Slide 14, if you could go back. The last bullet. How concerned are you that you have a potential to overload by 1 percent? Last bullet.

DR. C-EMORDI: Member Drago. Is it Drago?

MEMBER DRAGO: Drago.

DR. C-EMORDI: So your question is how confident am I?

MEMBER DRAGO: How concerned are you that that

contingency -- yeah, those 1 percent.

DR. C-EMORDI: So when I looked at the system impact study, it studies, it models a whole bunch of possible scenarios of outage of various system elements, from substations to transformers to transmission lines being down. So this is just one of those scenarios.

Now, the assessment does indicate that it is a 1 percent overload. And this is not new. Based on my conversations with the applicant and data request responses, there are three owners of that particular substation, and they are aware that that is a possible scenario. But they do not seem concerned by that 1 percent because typically in engineering, a plus or minus 5 percent buffer is anticipated in transmission line design. And so I do feel comfortable that this would not affect grid safety operations.

However, if, you know, they go up to 300 megawatts in the future, or if the configuration changes, that would be a different system impact study, and then we would be looking at that substation to see if the overload is more than 1 percent or more than 5 percent. But typically plus or minus 5 percent is our comfort level.

Does that answer your question?

MEMBER DRAGO: Yes, very good. Thank you. I

want to follow up.

I would assume that the assumptions made in the model are very conservative. Would that be your assessment.

DR. C-EMORDI: That's my belief, yes.

MEMBER DRAGO: Okay. Thank you.

CHMN. CHENAL: Member Hamway.

MEMBER HAMWAY: Can you talk about the need justification burden? Is that like a document that sits somewhere that you just have a checklist and you look at the burden? I know you answered him, so there is probably some modeling that goes into that. But what are the -- what is the burden?

And then, also, you said it has no negative impact. Does it have a positive impact or is it a neutral impact.

DR. C-EMORDI: So I want to make sure --

MEMBER HAMWAY: Yeah, looking at Slide No. 15, Bullet No. 1 and Bullet No. 4.

DR. C-EMORDI: Okay. Let me do my best to address your question.

So the need justification burden is based on a couple factors. One is does it actually improve the transmission system where it is going in. And we do believe, we do believe that it does.

MEMBER HAMWAY: Okay.

DR. C-EMORDI: Is there a problem in that area that this helps? Yes, there is. Because it is, like I said, it is a radial line. It is just one line in. And so this would help alleviate the degree of outage, outages that are experienced in that area. That's one thing.

To your second question about --

MEMBER HAMWAY: So just are those questions that you just kind of ask against any kind of project that comes before you?

DR. C-EMORDI: Yes. In my data request I specifically ask, you know, how does this -- what is the need of this project, how does it help the ratepayers in that particular service area, what are the impacts to the grid, are there any negative impacts to the grid. And then I ask for various studies.

And so there is a lengthy back and forth to determine the impacts of that particular project, whether it be a transmission line or a new generation station, to figure out if that project is actually needed in that service area. If it is, you know, owned by, obviously by -- if it is not a merchant plant. So yeah, there are a whole bunch of questions that I do ask to ascertain if there is any.

MEMBER HAMWAY: Okay. And the other question, you said it doesn't have a negative impact. Does it have a positive impact or is it a neutral impact?

DR. C-EMORDI: So the contingency analysis asks if or tries to model what would happen if there is one system element that goes out of service, either due to extreme weather events, which we don't really have in Arizona, or some accident or animals running into the substation, for instance.

And what we look at is does this new transmission line or facility, does it make things worse if something happens, does it make it better if something happens; if there is an outage of one system element, does it have no impact, it doesn't change anything, the system would operate as it would have whether or not that new build was in place. And for this particular project, it doesn't have any adverse effects.

Now, there is a potential for, especially for the interconnection project, because that's a new build, there is a potential for positive impacts. But it doesn't have any negative impact if some combination of system elements, substation, feeder, transmission line goes out of service. So that's what I look at for the impact on the safe operation of the grid or the

combination of contingencies that can cause an outage.

Does that -- I hope that answers your question.

MEMBER HAMWAY: Thank you.

CHMN. CHENAL: It does not appear that the Committee has any further questions. Having said that, I just contradicted myself. One more.

The condition that you suggested regarding the FERC and NERC construction standards, you are satisfied that the condition that's in the draft CEC by the applicant satisfies the recommendation you are making?

DR. C-EMORDI: Yes, I am.

CHMN. CHENAL: All right. Thank you very much.

MR. HAINS: All right. Well, thank you.

Actually, before opening up Dr. Emordi for cross, I was actually thinking we would provide Dr. Emordi and Mr. Gray as a panel for cross-examination simultaneously. And right now we are going to transition into allowing Ms. Davis to offer Mr. Gray's direct testimony.

CHMN. CHENAL: And that's what I was going to suggest. So let's proceed with Ms. Davis with your witness.

MS. DAVIS: Thank you, Mr. Chairman, members of the Committee.

DIRECT EXAMINATION

BY MS. DAVIS:

Q. Hello, Mr. Gray.

A. (BY MR. GRAY) Hello.

Q. Would you please state and spell your full name for the record.

A. (BY MR. GRAY) Sure. My name is Robert Gray, R-O-B-E-R-T, G-R-A-Y.

Q. And who is your employer?

A. (BY MR. GRAY) My employer is the Arizona Corporation Commission.

Q. And in connection with your testimony here today, did you prepare a slide show to assist you in your testimony?

A. (BY MR. GRAY) Yes, I did.

Q. We can go to the next slide, please.

Mr. Gray, what is your job title?

A. (BY MR. GRAY) I am a public utility manager in the Utilities Division of the Corporation Commission.

Q. Could you describe your duties and responsibilities as a public utility manager for the Corporation Commission?

A. (BY MR. GRAY) Sure. I am in the policies and program section of the Commission, and I supervise a number of employees. I also do direct casework on a

variety of matters, water, wastewater, electricity, natural gas issues.

Q. How long have you held that position?

A. (BY MR. GRAY) I have been in that position -- I started that position almost two years ago.

Q. Prior to working as a public utility manager where were you employed?

A. (BY MR. GRAY) I was employed at the Arizona Corporation Commission. I have been with Staff since 1990.

Q. And what other positions have you held at the Commission since 1990?

A. (BY MR. GRAY) When I first came to the Commission I was, my job title, I was an economist. Then I moved to a public utility analyst, then an executive consultant prior to becoming a public utility manager.

Q. And what is your educational background?

A. (BY MR. GRAY) I have a bachelor's degree in geography from the University of Minnesota in Duluth, and a master's in geography from Arizona State University.

Q. Do you have any other relevant professional experience?

A. (BY MR. GRAY) Yes. In the past I have chaired

the NARUC Staff Subcommittee on Gas from 2005 to 2007. And currently I serve on the North American Energy Standards Board's Executive Committee and Board of Directors.

Q. Do you have any prior experience testifying in line siting cases?

A. (BY MR. GRAY) Yes, I do. I testified quite a few times over the years back in the period where there was a lot of gas generators being sited. Most recently I testified in the SunZia case.

Q. In your capacity as the public utilities manager, were you assigned to review and analyze the joint CEC application for the interconnection project and the Nogales Tap to Kantor project that was submitted by Nogales Transmission, LLC, and UNS Electric, Incorporated?

A. (BY MR. GRAY) Yes.

Q. And did you review and analyze the joint application?

A. (BY MR. GRAY) I did.

Q. In addition to the joint application, did you review and analyze anything else?

A. (BY MR. GRAY) Yes.

Q. Could you describe what you reviewed, please?

A. (BY MR. GRAY) I reviewed -- there were data

requests. I reviewed the documents that had been filed in Docket Control at the Commission. We also had discussions with the applicants, internal discussions amongst Staff.

Q. Did you review the prefiled testimony from Nogales Transmission and UNS?

A. (BY MR. GRAY) Yes, I did.

Q. And in light of your review and analysis of these materials, what is the purpose of your testimony here today?

A. (BY MR. GRAY) The purpose first is to provide ACC Staff's policy perspectives on the project, and, second, to provide Staff's overall recommendation regarding the project.

Q. And when you say the project, you are referring collectively to the interconnection project and the Nogales Tap to Kantor project, correct?

A. (BY MR. GRAY) That's correct.

Q. Based on your review of the materials we just discussed, what is your understanding of the purpose of the project?

A. (BY MR. GRAY) My understanding is there are a number of purposes. One is to provide a second source of power to the Nogales area, which is currently served by one transmission line. And I know, having been at

the Commission a long time, I know that has been an outstanding issue for quite awhile.

To create a power market, there has to be access to the Mexican market, which could provide economic benefits. There is -- I know the applicant also cited possible economic development. There is a more stable electric grid in the area. And then I know typically with these kind of projects there is additional tax revenue. That's property taxes on the facilities that are constructed.

Q. In the course of your analysis, did you happen to look at which entities would be responsible for the construction and financing of different components of the project?

A. (BY MR. GRAY) Yes. And the slide that's currently up on the screen, this is a table actually that was provided by the applicant that I thought would be helpful to kind of lay out the different pieces of the project and who constructs, owns, and will operate each of those pieces of the project.

Q. Going back to a higher level analysis, what did you consider with regard to the project cost?

A. (BY MR. GRAY) The applicant cited in their application the total cost of the projects; it varied a little bit depending which alternative was selected. In

looking at costs, UNS Electric ratepayers and Tucson Electric ratepayers would bear certain costs.

And I note that some of those costs will also be borne by customers who use these transmission lines, because the costs, the way the costs are treated for a project like this, they are run through the FERC regulated transmission rates in the OATT for each company. So if another entity is using these facilities, they would help pay those costs.

Q. And it is your testimony, just to recap, the construction costs, those would be borne by UNS Electric ratepayers, is that correct?

A. (BY MR. GRAY) And anybody else who uses those projects, yes.

Q. And the network upgrades would be borne by TEP customers?

A. (BY MR. GRAY) Yes. And again, if other folks use those projects, they would help in paying those costs.

Q. How would you describe the potential benefits that would be observed by these ratepayers?

A. (BY MR. GRAY) Again, the reliability side of things, there is some potential economic benefits. There is the potential for, because you are accessing a broader electric market, to possibly reduce your

purchased power costs if there are opportunities to buy cheaper power from Mexico.

There is also the opportunity going the other way, to make sales into Mexico, that the benefits of those could reflect to UNS and TEP ratepayers specifically through their purchased power and full adjustment clauses.

Q. Mr. Gray, in the course of your analysis, did you look at how certain assets or resources on the Mexican side the border would be used in connection with the project in Arizona?

A. (BY MR. GRAY) Yes, in a general sense. We asked a few questions of the applicant to try to understand what resources were on the other side of the border. And this slide, we indicate their existing resources include oil, natural gas, and hydroelectric resources in Mexico. And information provided by the applicant also indicated that there was anticipated significant development of new natural gas and photovoltaic generation resources in northwest Mexico.

And the map on the next page was provided by the applicant, and I just thought that would be useful to kind of show the system on the Mexican side, show generally what resources there are and where they are.

Q. Okay. You were present for Dr. Emordi's

testimony earlier with respect to the components of the balancing test associated with transmission projects, correct?

A. (BY MR. GRAY) That's correct.

Q. And do you agree with Dr. Emordi's testimony on the components of the balancing test?

A. (BY MR. GRAY) Yes, I do.

Q. What components of the balancing test did you look at?

A. (BY MR. GRAY) I looked at probably the most, I looked at the economics and, to some extent, the reliability.

Q. And what is your testimony with respect to the economics and reliability as it goes to the need component in this case?

A. (BY MR. GRAY) As far as the economics, there certainly is a cost to the project of constructing the pieces. There are potential economic benefits I touched on of power sales into Mexico, and also possibly purchasing lower cost power at times from Mexico. And then the reliability that I think Ms. Emordi touched on in significant detail is another aspect.

Q. How does the merchant aspect of the project tie into the need analysis in this case?

A. (BY MR. GRAY) Looking at the need regarding

merchant facilities, I think first, the first time this really came up was in the SunZia case that I was involved in, and, at the Staff level, tried, we tried to think through how to look at need. Because it is a little different looking at the need for a merchant plant project than if you are building a transmission line to, say, meet additional growth in, say, part of the Phoenix metro area or where there is a clear direct tie to the need.

So in looking at that, there are parts of this project that are specifically merchant, particularly the 230 transmission line and the Nogales Gateway substation. And my understanding is the other parts are being developed in support of the merchant aspect.

The applicants have indicated that the merchant project will require sufficient commitments to move forward. And in Staff's perspective, we think that the achievements of those sufficient commitments demonstrates that there is a need for the project or else it wouldn't move forward.

And my understanding -- I wasn't here, but my understanding discussing with my fellow Staff members was that at the open season that the company had they achieved significant commitment or interest to move forward. So I think if that understanding is correct,

then they would demonstrate the need that way.

Q. Are there any other relevant considerations as part of your testimony?

A. (BY MR. GRAY) Just briefly to touch on the next slide, the natural gas considerations, southern Arizona, the El Paso Natural Gas southern system is the sole source of natural gas for electric generation in southern Arizona, and also provides significant natural gas supplies for electric generation in northwest Mexico via multiple pipelines that cross the border.

And to the extent this project could lead to additional gas/electric generation in southern Arizona or northwest Mexico, it could place additional strain on the El Paso Natural Gas pipeline system, and specifically currently the El Paso southern system is fully committed as far as pipeline capacity. And it could also point to an increased need for development of natural gas storage in Arizona.

And then regarding the proposed projects, the applicant indicated that for three of the alternatives the lines would cross an El Paso pipeline. So we are proposing kind of the standard condition that relates to that situation.

Q. And that leads me into my next question, whether you have any proposed, as a member of Staff, have a

proposed condition for the project in addition to Dr. Emordi's proposed condition.

A. (BY MR. GRAY) Yes. On Slide 13 we have a proposed condition. My understanding is that the proposed CEC has some different wording. I have reviewed that wording, and Staff is okay with the proposed wording and the proposed CEC.

Q. Would you mind explaining a little bit about the condition for the record?

A. (BY MR. GRAY) Sure. It is basically in cases where the project facilities will be within 100 feet of an existing natural gas or other kind of hazardous liquid pipeline, that the applicants will be required to perform certain studies to ensure there aren't negative effects from that.

Q. And the applicant has proposed changes to that condition?

A. (BY MR. GRAY) Yes.

Q. Are you able to describe the proposed changes at this time?

A. (BY MR. GRAY) I don't have those in front of me. I think they are various wording changes. I don't think any of the changes materially change the condition. And I -- Staff does not have any issue with the changes the applicants are proposing.

Q. Thank you, Mr. Gray. Do you have anything else that you wanted to add to your testimony at this time?

A. (BY MR. GRAY) Just a summary. Staff's position is that Staff believes the second potential source of electricity for the Nogales area is a significant benefit, and Staff is in support of the projects.

Q. And do you adopt the slide show you prepared as your testimony here today?

A. (BY MR. GRAY) Yes, I do.

MS. DAVIS: Chairman, I would like to move -- I am sorry. I would like to move both Exhibits ACC-1, Dr. Emordi's testimony, into evidence, and Mr. Gray's testimony as ACC-2.

CHMN. CHENAL: Any objection to entering ACC-1 and ACC-2 as exhibits?

(No response.)

CHMN. CHENAL: Okay. No objection, ACC-1 and ACC-2 are admitted.

(Exhibits ACC-1 and ACC-2 were admitted into evidence.)

MS. DAVIS: Thank you.

And with that, Dr. Emordi and Mr. Gray are available for the panel's questions -- excuse me, the Committee's questions.

CHMN. CHENAL: Okay. Member Woodall.

MEMBER WOODALL: Mr. Gray, this question is for you. You indicated that you thought there was the possibility for economic benefits to selling power to Mexico. Were you considering that the sale of that energy would come from generators located in Arizona? Is that one of the possibilities?

MR. GRAY: That's certainly one of the possibilities, yes.

MEMBER WOODALL: And I don't know anything about taxes on sales of energy, but is there any state tax that would be applicable to such a sale?

MR. GRAY: I am not familiar with how taxes are applied to the sale of natural gas.

MEMBER WOODALL: I didn't know either. I was trying to figure out. But it is conceivable that sales of power to Mexico could come from Arizona generators, and they could also come from out-of-state generators, is that correct?

MR. GRAY: Certainly. You know, under FERC open access rules, everybody, you know, fundamentally has the same access for transmission.

MEMBER WOODALL: Thank you. Thank you, sir.

CHMN. CHENAL: Member Jones.

MEMBER JONES: I am aware of one other location where Arizona electricity is sold into Mexico, and

that's through San Luis. And Arizona Public Service has a line there that they sell into Mexico. And it is less expensive because of the lack of -- or the -- state taxes aren't applicable, nor any federal on that as an export. So there is no tax revenue off the sales other than the benefit to the utility that is making the sale. So it is an indirect benefit, I guess, to their ratepayers.

MEMBER WOODALL: Thank you.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: Just to carry on with the discussion just introduced by Member Jones of the San Luis transfer of energy from APS to Mexico, wouldn't that have the same problem of this phase problem as this proposed line?

MEMBER JONES: Mr. Chairman, if I could, it is not -- it doesn't flow both ways. It is a single line that goes only into Mexico. There is no reciprocity --

MEMBER HAENICHEN: I understand that, Mr. Jones.

MEMBER JONES: -- in the system.

MEMBER HAENICHEN: The point is they would still have that mismatch, would they not, just going one way?

DR. C-EMORDI: I will try and answer your question. I am not familiar with that particular project. I do know that not all regions of Mexico have

the same mismatch in phase shift. So I cannot speak to that particular project. I could look it up if you would like to have more information about it.

MEMBER JONES: Mr. Chairman, I might be able to answer that. San Luis is part of the Baja grid which comes through the U.S. And after that, further into Sonora, it is on a different grid.

MEMBER HAENICHEN: Okay. So then it would not have this problem.

MEMBER PALMER: That was my comment. That testimony was offered yesterday.

MEMBER JONES: Yeah.

CHMN. CHENAL: Any --

MEMBER HAMWAY: I have one.

CHMN. CHENAL: Okay, Member Hamway.

MEMBER HAMWAY: So this kind of goes back to my question yesterday about the rates. So Mr. Gray, did anything you say, does it contradict anything you heard Mr. Beck say yesterday about rates and who pays for what?

MR. GRAY: I wasn't here to hear what Mr. Beck said.

MEMBER HAMWAY: Okay. Well, so what is the likelihood that FERC transmission rates will go up due to this project?

MR. GRAY: I mean I think these are additional costs that would factor into the FERC rates. On the other hand, you will have some additional participants also using the line. So I think it is hard to know how that will balance out.

MEMBER HAMWAY: Okay. So the same thing is you say TEP ratepayers would bear the cost of certain network upgrades, but this could all be offset by -- so as a customer, would I ever know the answer to that?

MR. GRAY: I mean as a customer, you are -- I doubt you are going to -- you know, the effect of this would be big enough to notice. And I mean the applicant has indicated to Staff in discussions that they believe there is significant opportunities to offset some or all of these costs through sales and so on.

They have indicated that, at least initially, their expectation is the overflow of power would be from north to south. So that tells me that they are anticipating off-system sales that would then roll into the respective company's purchased power and fuel adjustment costs, and reduce the rate associated with that cost.

MEMBER HAMWAY: So does the Commission or Staff ever see the results of this?

MR. GRAY: I mean we certainly -- you know, the

process at FERC is open, and we can see what is filed at FERC. You know, for TEP and UNS we have the transmission adjuster that flows those costs through to ratepayers. So we certainly -- there is access to that information.

And, you know, it is hard at this point to know how much, you know, savings there will be from off-system sales and any possible purchases from Mexico. So it is hard to know how much the cost of the project will be offset by those.

MEMBER HAMWAY: But it is not anything that is looked at unless a rate case comes before the Commission, correct?

MR. GRAY: I mean the FERC, the FERC rates are set by a process at FERC. Certainly, you know, there is opportunity for people to see what is filed at FERC. And if there was a red flag that somebody saw, they could raise the issue with FERC in setting of rates.

MEMBER HAMWAY: Okay. Thank you.

CHMN. CHENAL: Member Haenichen.

MEMBER HAENICHEN: Mr. Gray, the job of this Committee is to evaluate proposals from the applicants and make a decision on whether they are environmental and they are a benefit. This is an unusual one in a couple of ways, but there are two proposed advantages to

this, as I understand it. One is increased capacity and reliability of the electric supply to the City of Nogales, Arizona, and, on the other hand, the opportunity for a profitable exchange of energy between two countries.

In your opinion -- this is just asking for your opinion, that's all I am asking -- which of those two attributes is the more important one in this project?

MR. GRAY: I think Staff, you know, Staff, we look at the reliability benefit, and that's a significant tangible known benefit.

The other benefit, I mean I think it is reasonable to assume there will be some amount of economic benefit from the sales, but it is more speculative and uncertain.

So I think fundamentally we are hanging our hat primarily on the reliable benefit, with the opportunity for off-system sales, and so on as kind of a secondary but possibly significant benefit.

MEMBER HAENICHEN: Good answer. Thank you.

CHMN. CHENAL: Member Jones.

MEMBER JONES: Mr. Chairman, thank you. My question relates to the -- in testimony yesterday it was alluded that the system that serves Nogales has a number of vulnerabilities that would still be there after these

improvements are made.

My question, though, is: Does what is proposed create, is it a prerequisite to some degree to addressing those other vulnerabilities that are not in this project that would be the subject of another CEC?

DR. C-EMORDI: So Member Jones, the vulnerabilities that I identified, the causing of the outages, to my understanding, are more at the distribution level than at the transmission level. So that would not typically entail a CEC.

Now, in conversations with the applicants, they have indicated that they are planning to do those upgrades of the facilities to ensure that those outages, especially at the Valencia, Sonoita substation area, would not continue in the future. So that's separate from what the CEC focuses on, because you focus on transmission level facilities. These are more, to my understanding, at the distribution level.

MEMBER JONES: But to further my question, once the proposed improvements or additions to the system are made, will that facilitate those other improvements for distribution, or does it have no bearing on it whatsoever?

DR. C-EMORDI: So I am sure Mr. Beck can answer it in way more detail, but my understanding, again, is

that the facilities like you described at Gateway station would facilitate the expansion of the distribution network in the Gateway substation area so that that would alleviate overloading at the terminal node of the Vail to Valencia line. So the answer is yes; short answer is yes.

MEMBER JONES: And that wasn't included in -- I don't think that benefit was included in the testimony otherwise, but it probably should be recognized.

DR. C-EMORDI: I am sure Mr. Beck can speak to that.

MEMBER JONES: Thank you.

CHMN. CHENAL: I have a couple questions, Dr. Emordi. The question was asked about the transfer of power from the U.S. to Mexico, specifically San Luis. And because San Luis is part of the Baja system, it is in the same synchronicity of the United States. But in this project it is anticipated power will flow into the United States, into Nogales, Mexico, which I assume is not within the same, you know, grid as the Baja.

So that question that Member Haenichen asked still exists. If power goes from the U.S. into the Mexican system here under this project, will there be any problems that would need to be addressed such as the DC, the way the DC converter synchronizes, alters the

different countries' different phasing?

DR. C-EMORDI: I want to make sure I understand your question, Chairman. Are you asking, considering the fact that the two systems are asynchronous, if there would be an issue if we are going south-north, power flows south-north?

CHMN. CHENAL: No. South-north, the DC converter as I understand, it will allow the system to synchronize the a -- I won't even try to say it -- asynchronicity. Colette will have that. It is the correct word, even though I am not pronouncing it right. But it is corrected going north because of the DC converter. Going south, though, there won't be a -- how does Mexico address that system -- that situation?

DR. C-EMORDI: So the DC converter is bidirectional. It converts in both directions. So where you are north-south, it is AC/DC/AC, but synchronizes with the Mexican phase. And when you are going south-north, it goes again AC/DC/AC, synchronizing with the U.S. phase.

CHMN. CHENAL: Well, I understand what you said, I hear what you have just said, Doctor; I am not sure I understand it, or that I ever will. But maybe I should have an off-line conversation with Member Haenichen, as we have had previously.

But the Mexican power coming across the border to the north, if it is not in the same synchronicity as the U.S. power, it needs to be -- go through a converter to be in synchronicity with U.S. power. Is that true, though, going south?

DR. C-EMORDI: Yes, it is.

CHMN. CHENAL: Okay. So there would have to be this DC conversion --

DR. C-EMORDI: Both ways.

CHMN. CHENAL: -- both ways.

DR. C-EMORDI: Yes.

CHMN. CHENAL: In all cases.

DR. C-EMORDI: In all cases. So the DC line has no phase.

CHMN. CHENAL: Okay. So it acts as a master translator and it works.

DR. C-EMORDI: Pretty much, that's concise.

CHMN. CHENAL: Mr. Gray, a couple questions. One, one of your slides refers to firm and nonfirm power. I would just like you to explain what the difference is between the two.

MR. GRAY: I say firm is a firm commitment for a certain amount. Nonfirm is more of a possibility daily, hourly, short-term kind of purchase. I guess nonfirm probably more, as I am thinking about it -- firm is a

firm commitment, where you have to deliver; nonfirm is possibly interruptible or less, lower priority.

CHMN. CHENAL: Okay. You talk about creation of a power market, increasing market liquidity, and providing the opportunity for UNS and TEP to engage in firm and nonfirm energy transactions. Was that the context?

MR. GRAY: Yes.

CHMN. CHENAL: Last question. You indicated with respect to the condition that you had proposed, or the Staff had proposed, and you compared it to the similar condition, gas condition -- I will refer to it, as that was in the draft CEC -- you, I think, indicated that you are comfortable with the language in the proposed CEC of the applicant, is that correct?

MR. GRAY: That's correct.

CHMN. CHENAL: But I also think I heard the tail end of your testimony was that you had proposed some changes to that language?

MR. GRAY: No, no.

CHMN. CHENAL: Okay.

MR. GRAY: I had my wording that was in my PowerPoint slide. Then, later, I saw the applicants' revised wording, I saw what words were changed. I was comfortable how they changed it, so I have no changes to

what they proposed.

CHMN. CHENAL: All right. Good.

Any further questions before we turn it over for any cross-examination? Mr. Jacobs?

Excuse me. Member Hamway.

MEMBER HAMWAY: So in Mr. Virant, Matt's testimony, he calls Nogales Transmission an indirect subsidiary and you call it an unregulated affiliate. Is there a difference?

MR. GRAY: I mean I think I was looking at it from the standpoint of how it relates to the regulated utilities that the Commission has authority over, UNS Electric and TEP. And specifically I was looking -- let me get to the slide, where it shows ownership.

MEMBER HAMWAY: It probably doesn't matter. I was just curious if there was a difference and what that really means.

MR. GRAY: Maybe the applicant could more fully explain that than I could. Our main focus was the MEH Equities Management Company, which is affiliated with TEP and UNSE, but it is unregulated. So it is under the overall UNS umbrella, but it is an unregulated subsidiary. So what it does doesn't impact TEP and UNS Electric.

MEMBER HAMWAY: Right, okay.

CHMN. CHENAL: All right. Mr. Jacobs, any questions?

MR. JACOBS: I don't have any questions, Mr. Chairman.

CHMN. CHENAL: Mr. Guy or Ms. Morrissey? I guess, Mr. Guy, do you have any questions?

MR. GUY: We have no questions.

CHMN. CHENAL: Okay. Anything further of the panel, Ms. Davis or Mr. Hains?

MR. HAINS: At the risk of, you know, possibly making more questions here, but I had some questions that I hoped might clarify or simplify some of the things that everybody was struggling with here.

FURTHER DIRECT EXAMINATION

BY MR. HAINS:

Q. One was, you know, I appreciated some of the inquiries with regard to the phase and synchronization going two ways, and I will run the risk here of possibly reasoning by analogy and having it blow up in my face with a poor analogy. But in my mind, it seems to me that one possible way of thinking is if you have locks in a canal and you have to bring them up to a certain level so that one is not at one level and the other is different, so they just don't flow one way, that the

DC -- the AC to DC to AC conversion normalizes them for whichever side it is going. It raises it to one level that has to be higher going one way and lowers it to the other level when it has to be lower going the opposite direction.

Would that be a fair analogy? And is that intelligible?

I realize those two might be mutually exclusive.

A. (BY DR. C-EMORDI) The engineer in me would have preferred a different analogy, but I think that's fair enough.

Q. And with regard to the nature of the Valencia and the explanation that, even with the upgrades that are being proposed as part of this application, that disruptions at Valencia, Valencia still represents something of a choke point for service into Nogales. Would you agree with that characterization?

A. (BY DR. C-EMORDI) Currently, yes.

Q. Would you agree with the proposition that none the less, this project does represent a major improvement to the reliability proposition for Nogales?

A. (BY DR. C-EMORDI) Yes, it does.

Q. And you would agree that there are some additional things that could further improve reliability to Nogales?

A. (BY DR. C-EMORDI) Absolutely, yes.
Q. And those are the distribution level improvements that you had indicated?
A. (BY DR. C-EMORDI) Yes.
Q. And because those would be at below 115kV level, those would not typically require a CEC in order to facilitate?
A. (BY DR. C-EMORDI) That is correct.
Q. With regard to -- there was a question about the need burden. And not wanting to belabor that point, but would you agree that ultimately what Staff's purpose is to do was to develop a record that is amenable to and consistent with how the Commission would evaluate the application for it once a CEC is approved by the Committee, and, to that extent, we are looking at, on the need side, the need for reliable, adequate, and economic, in this case, transmission?
A. (BY DR. C-EMORDI) That is correct, yes.
Q. And when you are referring to the need burden, that's a shorthand way of referring to those three aspects of the need evaluation?
A. (BY DR. C-EMORDI) Yes, especially with regard to reliability from a technical standpoint, yes.
Q. So to the extent that you had indicated to Member Hamway, I believe was the one that asked those

questions with regard to the need burden, those types of questions you posed to the company with regard to fleshing out those aspects, those were to flesh out your analysis of, for example, the reliability or the adequacy, as the case may be, is that --

A. (BY DR. C-EMORDI) That is correct.

Q. There was one question, and sometimes this was something I mentioned when talking with Mr. Beck yesterday about the OATT. And sometimes it is a little like inside baseball. We know what we mean when we are talking about the OATT but perhaps not everybody on the Committee knows about it.

But it was a question posed to Mr. Gray with regard to firm and nonfirm. And, you know, I just wanted to clarify. So to the extent that the opportunity for sales of firm power, and nonfirm power both of them could present benefits, economic benefits to TEP, UNS ratepayers through the respective adjuster mechanisms for fuel and purchased power, is that correct?

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

Q. And with regard to firm power, that would be, for instance, long-term contracting?

A. (BY MR. GRAY) Typically, yeah.

Q. And nonfirm would be things like spot purchases

and things like that?

A. (BY MR. GRAY) Generally, yeah.

CHMN. CHENAL: Member Jones.

MEMBER JONES: When you are talking about firm and nonfirm, doesn't it also refer to renewables such as photovoltaic, which is one of the sources that was mentioned, versus hydroelectric, which would be considered a firm?

MR. GRAY: Certainly, when utilities are contracting for power, they take into consideration time of generating resource. And if you are contracting for renewables, that will have a different set of characteristics than hydro or natural gas or something else, yes.

MEMBER JONES: Thank you.

BY MR. HAINS:

Q. But in any event --

No other question?

MEMBER JONES: Yes, that answered my question.

BY MR. HAINS:

Q. In any event, so when we were talking about the opportunity and benefits of being able to contract for those, and that is, you know, what the customer is looking for if they want firm power, to the extent that TEP, UNS, or some other entity that could make use of

these facilities could be in a position to offer power under a firm basis, could make a commitment to allocate a certain amount of generation for a certain period of time, that would be the firm types of contracts they could -- firm sales they could make?

A. (BY MR. GRAY) Yes.

Q. And a nonfirm would be just as needed; if they had some spare power, some generation that was available, and then perceive a peak need on one side of the border and one utility has spare power to sell and the economics favor a sale, would that fall within the nonfirm type?

A. (BY MR. GRAY) Yes. And I mean it goes all back to the market liquidity, and that TEP and UNS will have access to a broader market to buy and sell in than they do now.

Q. And the only other one that I wanted to address was with regard to there was some questions with regard to when there is some scrutiny for investment that are made that are flowed through into the OATT, and Staff and Commission attention to those and Staff participation in those.

Are you aware or agree Staff can and has at times intervened in and participated in OATT proceedings for various electric utilities in Arizona?

A. (BY MR. GRAY) Yes. I am directly knowledgeable about that. We have been involved in APS filings, and I think we even currently are involved in their current filing at FERC.

Q. Okay. And certainly Staff can and could intervene, you know, under appropriate circumstances in TEP or UNS's OATT proceedings, if necessary?

A. (BY MR. GRAY) Certainly, yes.

Q. If something that appears untoward inside the rate recovery and various rate cases were becoming apparent, that certainly might be something that would indicate to Staff and the Commission that perhaps intervention may be necessary?

A. (BY MR. GRAY) Correct.

MR. HAINS: Thank you. That's all the questions I had.

CHMN. CHENAL: All right. I want to thank Dr. Emordi and Mr. Gray and Ms. Davis and Mr. Hains. I don't know if I -- I assume I speak for the Committee, but I certainly want to thank -- I think it is always helpful to have this perspective of Staff from the ACC in these cases. And it is very much appreciated.

Okay. I guess the panel is excused, unless there are any further questions from the panel or from any of the parties.

(No response.)

CHMN. CHENAL: Thank you very much.

The last aspect I guess, Mr. Guy, is some potential redirect. Would you like a 10-minute break here at this time to regroup before we begin the last phase of the hearing?

MR. GUY: That would be helpful. Thank you.

CHMN. CHENAL: Okay, good. Let's take a 10-minute break.

(A recess ensued from 4:06 p.m. to 4:21 p.m.)

CHMN. CHENAL: All right. We are ready to resume the afternoon session.

Mr. Guy.

MR. GUY: I am ready.

CHMN. CHENAL: Okay. Please proceed. And Ms. Morrissey.

EDMOND BECK and MATT VIRANT,

recalled as witnesses on behalf of the Applicants, having been previously duly sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

BY MR. GUY:

Q. Mr. Beck, were you in the room earlier when the

environmental panel was testifying?

A. (BY MR. BECK) Yes, I was.

Q. Members of the environmental panel were asked questions about UNSE's selection criteria for monopoles. Do you recall those questions?

A. (BY MR. BECK) Yes, I do.

Q. Could you describe how UNSE decides on what type of pole to use?

A. (BY MR. BECK) Well, as I testified on the record, our preferred and standard option is to use the weathering steel poles.

But very specifically associated with this case, in Case 144 -- just to clarify for the record, I think I inadvertently earlier in testimony mentioned Case 147. It should have been 144, which was the project from Kantor-South, as well as the short piece from the Nogales Tap up to the Vail substation.

During the CEC process for that line project, the Committee, and ultimately the Commission, ordered UniSource Energy to create a pole finish plan for that project because very specifically the color of poles was a big issue for the project.

And so we were ordered to, within 30 days of the final order for the CEC, submit a pole finish plan indicating where dull galvanized poles would be used

versus weathering steel. Part of the requirement was that the plan was to be provided to all landowners within 500 foot on either side of the centerline of the proposed line, and the public would have 30 days to raise any objections to the selection of the pole finish.

Through the process we also had a citizens advisory committee for the project comprised of citizens in the area. They had input to the pole finish plan. The plan that we filed with the Commission showed the use of the dull galvanized steel poles along the interstate, along Interstate 10, to better match up with all of the highway posts, signs, as well as existing lattice structures in that stretch.

Everything from the point of intersection with Wilmot Road to the south we identified as weathering steel. And that is what we built. It was shown on the -- you saw some of them today on the tour, those that were on the tour. And so the end result of our discussions and the filing of that plan were no objections to using weathering steel for the stretch of line going south all the way to Nogales.

I think Ms. Alster, who is with Pima County -- we have had ongoing discussions with her in the past about pole color. And we basically agree to disagree.

She likes a lighter colored pole for various reasons. And we like the weathering steel because of the maintenance issue.

But when we went through the process with Case 144 with the citizens advisory committee, what they recognized was, as you look at the mountains as a backdrop, the brown poles tend to fit in better than the lighter gray poles. And again, it all depends on the lighting, what type of day you are looking at it and weather conditions. And, of course, here is mostly sunny. We are looking at the mountains with a dark, typically a dark bluish-greenish background. And the weathering steel poles tend to blend in.

So that's how we ended up with Corten weathering steel on the existing line. And we feel that same decision should continue applying to the rest of the line.

MR. GUY: Thank you, Mr. Beck.

MEMBER HAMWAY: I have a question.

CHMN. CHENAL: Member Hamway.

MEMBER HAMWAY: Thank you, Mr. Chairman.

So I can see you can agree and disagree. I had a situation where I did lighting at a ball field, and we had the same kind of analysis where we put up the Corten and we put up galvanized, and they ended up on the

galvanized. And it was a tough decision. I mean there is contradictions.

So do you have any galvanized poles? Your company standard is the weathering steel pole.

MR. BECK: Our current standard is weathering steel to the extent for transmission that gets approved through the CEC process. If we are ordered to build something out, we will. So we do have galvanized. As I mentioned, we have galvanized on the Case 144 line along the interstate. They are dulled galvanized so they are not bright and shiny. They are kind of a more gray color.

We did put galvanized poles along Interstate 10 between Speedway and Grant with a project we did a couple of years ago. That was with strong input from the community, the neighborhood associations, that they wanted to match the lighting structures along the freeway. So it made sense there to do that, so we do have galvanized there.

And then in the past, and if we have to replace poles in a given area where we have painted poles, we do put painted poles in. Our problem with painted poles is that they don't last in the sun here.

MEMBER HAMWAY: Right.

MR. BECK: So five to ten years down the road

what started as a very -- our standard was a dark, called it Mohave Sage. It was a dark green color. Through a long extended process of analysis with input from public, that was the color selected back in the '80s. But we put those poles in on a lot of our system, and those poles today, where they haven't been repainted, are basically white. They chalk down to a white color and/or rusting.

The cost to go back and repaint those poles is very extensive. There are no environmental rules regarding the removal of paint, which adds a bunch of costs to that repainting process.

MEMBER HAMWAY: I would never suggest painting.

MR. BECK: Okay.

MEMBER HAMWAY: So one other quick question. So when was Case 144, how many years ago?

MR. BECK: 2008, 2009.

MEMBER HAMWAY: So ten years -- eight or nine years ago?

MR. BECK: We constructed the project; it was completed in 2014.

MEMBER HAMWAY: Okay. So is there a big cost differential between galvanized, the matte galvanized versus the weathering steel?

MR. BECK: I believe the last number I saw was

about a 20 percent increased cost due to the galvanizing and dulling process.

The other issue that we have with galvanized and/or painted poles is, if we do have to do any modifications of a pole, then you have to do special things to accommodate that, whereas with a weathering steel, you can cut a pole, weld pieces in. As long as you use weathering steel for the replacements, it will all match patina-wise after you are done.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Member Noland.

MEMBER HAMWAY: Thank you.

MEMBER NOLAND: I was on this Committee for that case. And it was really a very big point of contention with the neighbors. There were many more close neighbors on portions of that line than there are on this case. And so we did ask TEP to work with them and to allow their input. And I think the proof is in the pudding. They decided to do and wanted the Corten. So I would think that we would want to continue on with the same type of pole.

You know, we heard from one person. And this was many, many people that made that decision. So I think I would have to agree to disagree also and say that I think we ought to allow the best option, the most

affordable and sustaining option that TEP has the experience of using.

MEMBER WOODALL: And Mr. Chairman, I agree with the comments of Member Noland.

CHMN. CHENAL: Yeah, part of the exercise of making a record. But my sense is there is no one -- that we are in agreement with the sentiments expressed, but just to make the record, I think it is important we ask the questions and appreciate that we have done that.

So if there are any other further questions -- Member Haenichen.

MEMBER HAENICHEN: Not on this issue.

CHMN. CHENAL: Well, I know Member Haenichen has some. You still have some more questions of, Mr. Guy, of Mr. Beck?

MR. GUY: I do, in different topics. And we have another topic of structures.

CHMN. CHENAL: Okay. Member Haenichen.

MEMBER HAENICHEN: Mr. Beck, I am referring now to the panel just before you got into that table. And you will probably recall the question I asked Mr. Gray about, to give an opinion on what he thought was the more valuable feature of this project, was it either the enhanced reliability and capacity to the City of Nogales, or whether it was the opportunity to do deals

with Mexico and bilateral flow of electricity, which has the attendant problem of this phase mismatch which you propose to correct with the DC converter, and he referred to that as speculative.

Now, that's just his opinion. I understand that. But my question really revolves around you indicated in your testimony yesterday, I believe it was, that the bulk of the cost of the southern part of this project was the DC conversion system. And I thought that was the case and you confirmed it.

So if for the moment we say, well, this is speculative, who's going to pay for that portion of the cost? I mean, is Mexico going to get a big advantage potentially from this? And I guess I am concerned about whether or not that's a really important part of the project. So I want you to weigh in with your opinion on the importance of that portion of the use of this project.

MR. BECK: I think I will provide three answers to that.

MEMBER HAENICHEN: Okay.

MR. BECK: One is that I have been involved in trying to get a project to Mexico for 20 years. So I have a vested interest in seeing something get completed. So I think it has value.

But from a reliability perspective, it has a great value to, in particular, UNS Electric, but also to TEP ultimately. And the way that the project is structured, the cost to our ratepayers of putting this, the facilities, in to support the project should be ameliorated by the flow-through on the system. And so they will get the benefit of the reliability, but not really see a cost increase on their bills. That, for the majority of that cost, will be paid for by the flow-through users of the system, the DC tie.

MEMBER HAENICHEN: Okay. Well, so are you saying that the fact that we have the ability to exchange energy with Mexico because of this DC system that's in place enhances the reliability of the system in the United States? Would you explain how that happens?

MR. BECK: Well, there are two components to it. One is just the upgrade of the 27 and a half miles of line, as well as the reconfiguration and creating a Gateway 138kV substation will have benefits to UNS Electric absent the DC component, but we will not attempt to build those absent the DC component because of the cost. The cost is too great to put it on the existing users in Santa Cruz County. So by adding 150 megawatts of use, it takes care of the cost issue, so we

get that reliability benefit on the UNSE specific system.

Secondarily, having a tie to Mexico with the ability to do business with Mexico, especially in an emergency, brings a reliability benefit to the system to the north, both UNSE as well as potentially TEP. Should we have issues north of Tucson on the transmission system, we do have another potential small resource from Mexico.

MEMBER HAENICHEN: But didn't you testify yesterday that the cost of the upgrade portion compared to the DC was much, much smaller? So why would that be a tremendous burden on the ratepayers?

MR. BECK: Because the ratepayer -- the load pocket in Santa Cruz County is roughly 85 megawatts peak. And so whatever we spend on transmission assets gets spread over only 85 megawatts. And so if we put in the $40 million, approximately, of upgrades to 85 megawatts, that's a big hit to the customers. The DC tie, roughly $80 million, is over double that amount. So of the 80 million, the bulk of that was DC tie, but there is also the 30 million upgrade piece.

MEMBER HAENICHEN: I understand that.

MR. BECK: So the big benefit is that, by having the DC project providing a lot more use of our system,

it is diluting the cost that the current ratepayers would see on their bills.

And I said I would get three answers. The third answer is from a MEH standpoint, wearing that hat, we are looking at the DC project, the tie project, as providing benefits as an investment on the unregulated side.

So there is the reliability benefit to systems to the north. There is an investment benefit, hopefully, from the project. But none of the upgrades that we are proposing, we will not move forward with any of the upgrades that are being proposed unless there is commitment to that DC project. And to make the DC project go forward, there will need to be longer term commitments from users, whether they be from the U.S. side or from the Mexico side, to make it financable and doable.

So we have to meet of threshold which, as you heard from the solicitation process, sounds pretty promising that there is strong interest in the project. So if those people actually turn that interest into commitments, and we can get the bulk of that 150 committed for, you know, maybe 20 years or more, then we would move forward with the project. We would do the upgrades, and then the UNSE customers realize the

benefit of the reliability improvement but don't see the hit to costs because we have basically tripled the flow-through that's being used in the calculation of the rate.

MEMBER HAENICHEN: That's a very good explanation, and it helps me a lot to understand it. Thank you.

MR. GUY: Mr. --

MR. BECK: Maybe just to touch on one other point raised earlier is the question of why we need the DC tie for our project, yet in San Luis they don't. What you have to realize is those loads are isolated loads. They are not tied to the Mexico grid.

MEMBER HAENICHEN: I understood that explanation. But my question was really a technical one. I wanted a little bit more amplification how that works, and she kind of blew me off a little bit.

MR. BECK: Just similar to the San Luis, UNSE did have a load at Lochiel, a small town east of Nogales. And we served that load because CFE doesn't have the power to bring up to the little town. We served it for many years. They built a transmission line that brought power to Lochiel. We had to open up our connection to them. We left the line there.

We have a Presidential Permit, but it is

strictly for emergency purposes. So if the transmission on their side were lost, we could serve their load. If transmission on our side to some customers right at the end of that line near Lochiel, if that line goes down, we could provide -- close the switch and get some power from CFE, so...

MEMBER HAENICHEN: That is very nice of you.

BY MR. GUY:

Q. Mr. Beck, let me back up to right before you were talking about the San Luis load. And you were talking about the benefits to reliability of the DC tie and the upgrades where the ratepayers are having to bear the full cost of those upgrades. There were also questions of the panel related to that, perhaps from Member Jones.

But could you describe for us, separate from the DC tie, how the existence of the new Gateway 138 station would provide UNSE opportunities to improve reliability in the future?

A. (BY MR. BECK) Sure. I think to some degree that was addressed by the Staff witness that, to the extent the Gateway substation exists -- and again, if it is paid for kind of by other means so that the full cost doesn't go to the UNSE ratepayers, once it exists, adding distribution to that substation is relatively

easy and straightforward. There are some cost components to it, but it is basically putting a transformer in and extending some feeders out from that substation to pick up some of the load that today is served strictly in the Valencia substation.

So in the longer term there is that additional benefit, which isn't realized immediately with this project, but it is something that is on UNSE's radar to be looking at, when and how do we expand that substation to be a distribution-serving substation in addition to Valencia. And ultimately, if we could split half of the load between the two substations and have enough looped system there, it would greatly improve our reliability.

Q. Let me stay on sort of the detailed technical stuff. And this may not matter because I think it was actually addressed by Staff.

When you met with Dr. Emordi and sort of explained the technical study, the system impact study, did she accurately describe the study from your perspective, number one? And I guess number two, since we met with them, have you learned some differences about the study?

A. (BY MR. BECK) Yes, she accurately described the study that we provided to, well, in this case as well as to Staff. And that was our system impact study. And in

that system impact study we did identify a slight increase of 1 percent on an overload issue on the Western Area Power system.

Subsequent to filing the documents, we did provide the study to Western. And it kind of raised Western's eyebrows, why are you seeing an overload, we are not seeing it. So they worked with us, went through what we had in our base case, and identified that we had some generation at Saguaro that they felt should have been at a lower level, and showed the true operational numbers that are less than what was put into the base case.

It is a bit of a problem internally or in our region, which Staff will probably be interested in, in that the base case, when we develop these studies we use a base case that's developed throughout the industry. So all the entities basically in Arizona get together, take the WECC case, which is a case that covers all of the Western interconnection, and then they tweak their pieces of that case to identify any peculiarities in their system that they want to be used by all parties when we do studies. We were relying on the generation levels that APS had identified. And based on the Western input, those numbers probably were a little too high.

So we reran the study and we identified that, with that lower level of generation at Saguaro, in fact there is no overload showing up. And so we are finalizing a revised version of the study which we will be sharing with anybody who wants to see it, but specifically Staff as well as DOE, to show that the Western Area Power issue is a nonissue.

Q. So the bottom line in that is 1 percent is an acceptable overload from an engineering perspective, but what you have since learned, it is not even that high, it is even lower than 1 percent. Is that the final --

A. (BY MR. BECK) There is, effectively, there is no overload based on the revised generation.

And, you know, it is a matter of is 1 percent acceptable from a planning perspective, engineering perspective. Anything within a 5 percent range, that's probably the validity of your studies. But nobody likes to see something that's over 100 percent. And so that was, of course, Western's concern.

Q. The only other question, I think, or line of questions, unless you want to get into different phases, why Mexico may have a different phase -- I will let you volunteer if you want -- the only other question, I believe there were questions about structures near the washes and how the new structures may compare to --

height and spans may compare to existing structures from Member Riggins.

A. (BY MR. BECK) Yes, I remember that question. And to the extent we were to raise a pole out of the -- out of a wash area with a concrete foundation, that will be taken into account in the design of the pole height. So we will adjust the pole height accordingly.

And, you know, we look at the, I think to your point, the grading of the structures. So typically the grading structures is you want to have the top of the structures in a fairly straight line so you don't see this up and down meandering of pole heights. So that is part of our design criteria.

Q. Thank you.

A. (BY MR. BECK) There was one other question regarding pole heights. And I have been informed that the existing line ranges from 83 and a half feet to 95 foot tall structures on the upgrade portion. And in our application we are indicating 75 to 110 feet for the new structures.

So worst case, they could be 15 foot higher. The likelihood that we would be at that high end of the range is pretty small. I mean we wanted to be sure we were covered. So we are probably going to be very similar, if not even a little shorter than most of the

poles that are out there today.

MR. GUY: Thank you.

And yeah, those were all the questions I had for Mr. Beck, at least in my notes. So if any Committee member wanted to hear something else from him that I haven't asked, it was unintentional and my notes don't reflect it.

A couple questions for Mr. Virant.

BY MR. GUY:

Q. Mr. Virant, do you recall some questions when you provided testimony about whether there were any affiliates of Hunt Power that had ownership of generation? Do you recall those questions?

A. (BY MR. VIRANT) Yes.

Q. And were you able to look into that, and do you have additional information you can share?

A. (BY MR. VIRANT) Yes, we have. No changes to the answer, not aware of any generation or involvement with generation by Hunt entities in Arizona, as I responded to the question, probably incorrectly for the question that was asked, also true of the United States. And there is Hunt entities, or there is a Hunt entity that has interest in generation, but it is in South America.

Q. And --

CHMN. CHENAL: Member Hamway.

MEMBER HAMWAY: So when you have an open solicitation, is it international or just a U.S. solicitation?

MR. VIRANT: Well, it is a solicitation for the transmission capacity within the U.S.

MEMBER HAMWAY: Right.

MR. VIRANT: Or under FERC, Federal Energy Regulatory Commission's jurisdiction. The principles of that solicitation and the practices for these merchant projects would allow any entity to participate in that provided they meet the screening criteria of the solicitation.

I think if I were trying to tie this response back to my last question, the potential involvement of a wind farm in Costa Rica in this open solicitation, it isn't possible.

And further, in the petition for declaratory order and the filings with FERC, we have stated that no affiliate of Nogales operations would be participating in the open solicitation. So I know that wasn't your implication by your question, but if I were to try and tie those concepts together, just because they were near each other, that would be the full response.

MEMBER HAMWAY: Thank you. Actually, that was a

question in my head. I just didn't ask it.

MR. VIRANT: Very good.

CHMN. CHENAL: I want to ask a follow-up question here. Is the same true for UNSE, are they a possible part of this -- partner in the solicitation or make a bid in the solicitation?

MR. BECK: Because of the FERC rules and the firewalls that we have between the different parts of our organization, I am not privy to what our marketing, what we call our marketing side is doing. We do know they are aware of this open solicitation, and they had indicated that they would be looking at it. And our expectation is it would make sense for them to do it. But whether they have or submitted I do not know.

CHMN. CHENAL: Thank you.

Member Jones.

MEMBER JONES: I just wanted to be sure we were clear on this. Is it conceivable that a Mexican entity, having met all of the FERC requirements, could solicit and receive or participate?

MR. VIRANT: Yes. An entity based in Mexico, located in Mexico, a Mexican entity could acquire transmission capacity in an open solicitation. That would be very similar to their ability to acquire transmission capacity on any electric system in the U.S.

So yes, it is true, but it is not unique to this project.

MEMBER JONES: Okay. Thank you.

CHMN. CHENAL: Thank you.

BY MR. GUY:

Q. And Mr. Beck, Mr. Virant, just a follow-up on the Chairman's question. Mr. Beck, you mentioned you are not aware of whether, because of the firewalls, whether any affiliate of UNSE or TEP has participated in the open solicitation. But I just want to make sure to clarify there is nothing that would prohibit them doing so; in fact, they are the type of entity that could be interested in participating in the open solicitation?

A. (BY MR. BECK) Absolutely, nothing that would restrict them. And, in fact, if I were on the side, I would be very active in looking at the open solicitation, so...

Q. Mr. Virant, I had one more question. In your slides, one of the potential benefits you listed for the project was that it is an opportunity for increased economic development, I believe. And I think you may have had some questions regarding the basis of that potential benefit. Have you had a chance to sort of figure out where that came from?

A. (BY MR. VIRANT) I have consulted with others

and reviewed the DOE's environmental assessment. That information is provided in section 4.8 on socioeconomics. There are several socioeconomic factors that aren't affected. Those were found to be population, housing, and tourism. However, there were two factors that they listed as having positive impacts, employment and taxes and revenues.

There is plenty of detail in this section, but in general, section 4.8.2.2 is with regard to common impacts across all the alternatives. And it finds that in the employment and income category, there would likely be 30 to 50 construction jobs created as a result of the Nogales interconnection project, which would also have positive multiplier or spillover effects as they work down in the area. Similarly, in taxes and revenue, they found that there would be benefits to the study area as it relates to property taxes, sales taxes, and other income related to it.

And then just to close out, one thing I should have mentioned at the very beginning, the area studied was Santa Cruz County. So that was the area of analysis.

CHMN. CHENAL: Member Woodall.

MEMBER WOODALL: I have the section which you very kindly pointed out to it, and there was a reference

in there to taxes on the sale of electricity. And you will recall that I inquired of Mr. Gray whether or not he was aware if there were any sales taxes on sales of electricity. Do you know that?

MR. VIRANT: As a matter of fact, I do not.

MEMBER WOODALL: Okay, that's fine.

MR. VIRANT: I do have a CPA, but I have to admit I took the tax section more than once.

MEMBER WOODALL: I was just wondering if there would be an additional economic benefit, that there would be some sales taxes that would accrue to the State of Arizona. That's all I was getting at. I understand property taxes.

Mr. Beck.

MR. BECK: I don't know the specifics of the tax laws, but as we all know, everything gets taxed. And I suspect that whether or not the actual transaction is taxed directly, any income that is received by the entities will be taxed and it would show up there.

MEMBER WOODALL: Well, if it is an Arizona entity, that's a good thing. If it is a California entity, maybe that's not quite as good. So, okay, thank you.

MR. GUY: Mr. Chairman, I believe that's all the questions we have.

CHMN. CHENAL: Any follow-up questions by the Committee?

Any follow-up questions, Mr. Jacobs?

MR. JACOBS: No, I don't.

CHMN. CHENAL: Any follow-up questions, Ms. Davis or Mr. Hains?

MR. HAINS: No, not from Staff. Thank you.

CHMN. CHENAL: Okay. Very good. We made great progress. I think tomorrow it will make sense to start with the closing arguments. To the extent there will be, I don't think they will be that long. That is one thing that, you know, I think we can put off to tomorrow. I think it will give you an opportunity to prepare for it. And then we can move into the deliberations.

Two issues that I think we should talk about right now, at least that come to mind, and anything else anyone else wants to bring up.

Number one, we haven't had a formal stipulation on the record as far as the agreement that seems to have been reached between State Land Department and the applicant with regard to the Alternative 2, which was not the preferred route for the upgrade portion.

Has an agreement been reached? Is there any issue as far as that goes in connection with the CEC,

Mr. Jacobs?

MR. JACOBS: I can speak to that.

Yesterday you also spoke about getting the Land Department's exhibits in the record, so I have -- we can, I can get those in the record because I also have an additional exhibit, which both is the Land, the Deputy Land Commissioner's affirmation of the exhibits that were already filed, and his affirmation that the agreement as Mr. Beck stated yesterday is the Land Department's understanding of the agreement, and that, based on that agreement, the department will support the CEC application.

CHMN. CHENAL: And that would be Alternative 2 for the upgrade route, is that correct?

MR. JACOBS: Correct. It is two paragraphs. I can read that into the record as well, if you would like me to.

CHMN. CHENAL: Short paragraphs?

MR. JACOBS: It is about three-quarters of a page.

CHMN. CHENAL: Well, I tell you what. Why don't we make it an exhibit. How many exhibits will you have if we include that as an exhibit?

MR. JACOBS: There is 1, 1-A, 1-B, and 2. That would be 2.

CHMN. CHENAL: Okay. And you have summarized the substance of the agreement, correct?

MR. JACOBS: Correct.

CHMN. CHENAL: Okay. Let's introduce your exhibits and see if there is any objection. First of all, has anyone seen them? Has the applicant or the ACC Staff, have they seen these?

MR. JACOBS: I discussed with counsel for the applicant. ACC Staff has not seen them.

CHMN. CHENAL: And that's the last -- the affirmation you are talking about? Because you introduced --

MR. JACOBS: 1, 1-A, 1-B have been filed and served.

CHMN. CHENAL: Correct.

MR. JACOBS: So it is just Exhibit 2, which only counsel for the applicant has seen.

CHMN. CHENAL: All right. Let's do this. Let's see if we can get 1, 1-A, 1-B admitted, and just review that Exhibit 2 with both parties. And assuming there is no objection, we will get that admitted tomorrow. Okay? Is that fair? Because I want to make sure that Staff has no objection to it. I don't think they will if it is acceptable to the applicant, but...

MR. HAINS: Chairman, on behalf of Staff, since

this isn't our issue and so long as it is a happy agreement between the applicant and State Land, I don't think we actually have any objection to it. I would like to see a copy of it at some point, but I don't think we would have any objection to its admission.

CHMN. CHENAL: Okay. And does the applicant have any objection to any of the exhibits?

MR. GUY: No. I think we have seen an e-mail version, so assuming the paper version matches the e-mail version, we don't have any objection to it whatsoever.

CHMN. CHENAL: Do you have extra copies, Mr. Jacobs?

MR. JACOBS: I have got 15 copies here. I can run them around if you would like me to.

CHMN. CHENAL: I believe we have already -- why don't you do that, and then let's get them admitted.

MR. JACOBS: Okay.

CHMN. CHENAL: Yes, Member Woodall.

MEMBER WOODALL: Mr. Beck, have you made an application for right-of-way and the route that the Land Department prefers yet?

MR. BECK: We have not made that yet, but we will be working on that. And I believe that's mentioned in this document.

MEMBER WOODALL: Okay. So it would be pretty soon.

MR. BECK: It would be relatively soon. And there is an indication from State Land that they will work to process it expediently.

MEMBER WOODALL: Thank you.

MR. GUY: Sorry for the delay, Mr. Chairman. The applicant reviewed the three exhibits and we have no objections.

CHMN. CHENAL: Okay. So Mr. Jacobs, you are moving for admission of SLD-1, SLD-1-A, SLD-1-B, and SLD-2, is that correct?

MR. JACOBS: That's correct.

CHMN. CHENAL: And SLD-2, on pages -- the bottom of page 2 and top of page 3 of SLD-2 basically summarizes the agreement that has been reached between State Land and the applicant, is that correct?

MR. JACOBS: That's correct.

CHMN. CHENAL: Okay. And is the applicant in agreement with what is represented in SLD-2?

MR. GUY: We are.

CHMN. CHENAL: Okay. So any objection to admission of SLD-1, SLD-1-A, SLD-1-B, or SLD-2?

(No response.)

CHMN. CHENAL: Okay. Hearing no objection,

SLD-1, SLD-1-A, SLD-1-B, and SLD-2 are admitted.

(Exhibits SLD-1, SLD-1-A, SLD-1-B, and SLD-2 were admitted into evidence.)

MR. JACOBS: Thank you.

CHMN. CHENAL: I guess I will throw this out. I don't know that there is anything we need to include in the CEC specific as to the agreement, other than to note that we will talk about the route in a second and how we define it, but I am not thinking we have to somehow capture the stipulation or agreement inside the CEC. We will simply, you know, vote on the CEC with the routes set forth, and I am not sensing a need to treat, in the CEC, the agreement, unless anyone disagrees.

MR. JACOBS: No, I agree.

CHMN. CHENAL: Okay. So the next issue, the last issue I had was I think something that Mr. Guy and I just spoke briefly during the recess, is what is the preference of the Committee in terms of the description of the route. We had talked earlier whether it be legal description and/or GPS coordinates. There was a discussion about trying to come up with a legal description of the route.

And I guess I just open it up for discussion as to what progress has been made, whether there has been -- we have a legal description for the proposed

route and what the preference of the Committee might be.

Mr. Guy.

MR. GUY: We do --

MEMBER WOODALL: I just wanted to say it must be my five years of working with engineering firms, but I concur with Mr. Beck, that I would prefer a legal description. I think it would be easier for landowners as well. That's my personal preference.

MR. GUY: Well, and I will confirm that that is an option. We were able to, UNSE Staff was able to prepare a legal description. And the legal description is the centerline of a route, and then asking for a thousand-foot corridor.

So we have a legal description of a centerline for both the Nogales interconnection project and the Nogales Tap to Kantor project. Now, the Nogales Tap to Kantor is actually the current line, but then with the corridor, they would be allowed to construct anywhere within that corridor.

MR. JACOBS: May I inquire? Are you anticipating having a schematic depicting the route as an Exhibit A? Has that been contemplated, Mr. Beck?

MR. BECK: We do have both available. And to the extent the Committee would like to see the map version in there, it can be provided.

MEMBER WOODALL: I am just thinking that we have, in other CECs, we have provided legal. And then for the uninitiated into metes and bounds, we have had a diagram that was appended to the CEC. So, personally, I think that would be helpful. But I will defer to the wish of the majority.

MR. GUY: And if I may, just to be clear, the diagrams that we have, which I guess would be our preference, as opposed to creating a new diagram this evening, but we have the two exhibits -- and I don't recall the numbers -- that were circulated yesterday that have the GPS coordinates with the corridor. That's probably the most precise diagram and most descriptive diagram we have from a map perspective.

But then we also have the maps that we have been using during the hearing that are not nearly as detailed, don't have the GPS coordinates, but they would be akin to a schematic to show you geographically where the lines are. And so I think you have seen all the diagrams we have.

MEMBER WOODALL: I personally find the legal description to be more important, and the level of detail that is in the schematic is not a significant issue for me.

CHMN. CHENAL: I agree, although I don't see

that -- I mean I think to have both would be helpful. I mean put me in the class of the uninitiated. I can read a legal description until I am blue in the face. I get a lot more looking at a map, frankly. So if there is no objection --

Member Noland.

MEMBER NOLAND: Mr. Chairman, I would prefer that we have both the legal and then attach the corridor maps that you used with the GIS.

CHMN. CHENAL: Yeah, I would, too. I think that's what we would prefer. I think it is good to have both, frankly. So I applaud the applicant for pulling together a legal description in rather short order.

So we have a hearing, a public hearing at 6:00 here for public comment. I want to ask the Committee kind of a question for future cases. Would it be the preference of the Committee in the future if we set the public hearing at a time other than 6:00?

MEMBER NOLAND: Yes.

CHMN. CHENAL: I mean I have done it, frankly, because it has been done like that. But I mean I don't know how convenient it is. We want to allow the public to attend, and if they work until 5:00 -- but a 6:00, I mean if we wait for an hour and then one person shows up, if that, you know, I just wonder, maybe we should

move it up to 5:30. What would be the preference of the Committee?

MEMBER WOODALL: 5:00.

MEMBER HAENICHEN: 5:30.

CHMN. CHENAL: 5:00? Okay. Then, you know, in the future I will endeavor to make the public hearings at, you know, for the public comment at 5:00.

Is there anything further we need to discuss before we adjourn for the 6:00 public comment?

We will have the final arguments tomorrow. We will have the deliberations. We will work on the CEC.

Mr. Guy, is there a draft of what you will have that's available? Certainly it will be available tomorrow as per usual. We will kind of review it as we go, up on the screen as we go, as we go along. Did you have any thoughts on that.

MR. GUY: I don't think we have a draft right this minute. I can certainly, if it is helpful, you know, we can e-mail the draft later this evening to the extent people want to spend time on it this evening. But if we don't have that, we will have a copy first thing in the morning.

The one thing that would perhaps be helpful, Mr. Chair, if it is something you are amenable to doing, is the one condition that we are struggling with a

little bit that we could use guidance on, perhaps the Game & Fish letter. There has been some discussion about that. To the extent we could get a sense from the Committee if the Committee has a preference, then it would give us direction this evening as to how to incorporate any potential conditions associated with that letter. And we have got a couple options, but --

CHMN. CHENAL: Well, I think a couple ways to go. And I think frankly, I am not married to either one, I just think there ought to be some clarity in the four corners of the document.

One way is to create a condition, I guess, that lays out the items that are set forth in the Game -- the mitigation measures. The other, I guess, as Member Noland suggested yesterday, we have a condition that says something like the applicant will comply with all mitigation measures set forth in the letter from Game & Fish to the Chairman dated such and such a date, attached and incorporated as reference as Exhibit A or Exhibit C, whatever exhibit it would be. I guess either way would be acceptable. I have a preference of the two, but I could live with either. But let's hear what the Committee has to say.

Member Noland.

MEMBER NOLAND: Well, Mr. Chairman, you just

stated my preference.

CHMN. CHENAL: Okay.

MEMBER WOODALL: I'm in accord with Member Noland.

MEMBER HAMWAY: I am, too.

CHMN. CHENAL: Okay.

MEMBER HAENICHEN: Me, too.

CHMN. CHENAL: All right. Okay. That's fine. So I guess the direction is to have -- maybe we will make the letter an exhibit and have a very short succinct condition that, you know, says the applicant will comply with those mitigation measures.

MEMBER NOLAND: Mr. Chairman.

CHMN. CHENAL: Yes, Member Noland.

MEMBER NOLAND: I wanted to be sure that the Staff recommendations for conditions were the ones that were presented today. And you agreed that the applicant's wording on the gas line was okay with you, is that correct, Mr. Hains?

MR. HAINS: Chairman, Member Noland, yes. Staff has reviewed and had an opportunity to pore over and give a good think to the proposed revisions that the applicants are making. And Staff is comfortable with both of the two conditions, the gas one and for the participation and reliability requirements.

MEMBER NOLAND: Okay. And Mr. Chairman, Mr. Guy, or Mr. Beck, is the gas line condition along the same lines as we have seen in the past?

MR. GUY: Yes. The gas provision that we proposed in our draft CEC was the one approved in the Southline case.

MEMBER NOLAND: Okay.

MR. GUY: Just slightly different language than the precedent that Staff wrote from.

MEMBER WOODALL: I think that was an ancient condition as well.

MEMBER NOLAND: And Mr. Chairman, I would just like to note if there are any other conditions coming out of the woodwork that we haven't seen yet.

CHMN. CHENAL: I don't think so, Member Noland. I think -- I passed around ones that I had kind of noodled together, and I think you have seen the discussion on the ones that have been discussed by Staff. We talked about the Border Patrol matters that will be incorporated, probably have already been addressed in the draft that the applicant is working on. I am unfamiliar with any others.

MEMBER NOLAND: Okay.

CHMN. CHENAL: I mean if there are any others we should talk about, this would probably be a good time to

do it. But I am not thinking of any. And I appreciate the other ones, flesh this out now. I think it will save time tomorrow.

MR. GUY: It will.

MEMBER NOLAND: I think we should pretty much be able to go through them because we discussed most of them.

CHMN. CHENAL: Now, we will have two tomorrow, so, Mr. Guy, but the majority of the language will be the same for both. So there will be just slight differences. Maybe the one with the Nogales project, or the interconnection project, the Presidential Permit might have some additional language. Is that correct?

MR. GUY: That's right. As we looked at the evidence and listened to what was important to the Committee, largely the evidence is the same for both projects. And the way they can refer to the conditions is the same. Obviously one project has a Presidential Permit, so when we have Presidential Permit specific conditions, I believe they are just one or two, that hopefully will be the only difference.

MEMBER WOODALL: I am assuming the Border Patrol one is going to be in the interconnection, it is not going to be in the Kantor CEC, or is it?

MR. GUY: Well, the only change I have currently

made to address Border Patrol, at least my notes reflected, was to add that the applicants would comply with FAA regulations, and I thought that was sufficiently general we could include for both.

MEMBER WOODALL: Thank you. That helps.

CHMN. CHENAL: Okay. Anything further before we adjourn?

(No response.)

CHMN. CHENAL: Well then, good. Tomorrow we will have the final arguments and proceed to deliberations. So tonight at 6:00 we will have the hearing and tomorrow at 9:00 a.m. we will conclude -- we will start for the final day of hearing.

Okay. Thanks, everybody.

(A recess ensued from 5:17 p.m. to 6:05 p.m.)

(The evening public comment session commenced with Committee members present and the Applicants.)

(TIME NOTED: 6:05 p.m.)

CHMN. CHENAL: All right. Good evening, everybody. This is the time set for the public comment portion of the hearing that was noticed for 6:00 p.m. this evening.

Is there anyone in attendance who wishes to address the Committee on this project?

Ma'am, would you please step to the microphone and give us your name. And we are interested to hear what your comments are.

MS. FREEMAN: My name is Nancy Freeman. I live in Green Valley. I represent the Groundwater Awareness League, which was created to address the water issues with copper mining in southern Arizona.

So several people had called me with concerns because there is a proposed copper mine in the Patagonia area, the Harshaw old mining area. And since this will be a merchant line, they were concerned that the company might sell and enable that mine to have power.

Now, I attended the meeting on Tuesday to get the logistics, because it was a little confusing that Nogales Tap was in Tucson and Valencia was in Nogales.

I got that all figured out. And what I did was I went through the report to see where that -- those lines were going.

I will mention that there is another -- there was another concern, and that was that the power lines would go through the Santa Rita Experimental Range. But I did speak with the U of A manager, and he said those lines had been there forever and you were just upgrading, which is great. You know, I feel really good about the project making more reliable power. And also, you know, going through the Santa Rita Experimental Range with new power lines and everything, it is going to be safer.

So I printed out maps for you to peruse. So I got those out of the -- off the internet, off the application. And I noticed that one of them did, in fact, go right through Sonoita, which would mean that it would be -- would have to go by Patagonia. And the mining, the mining operations, it does pollute the water and the air. It depletes the water table, because it uses 50,000 gallons of water per day for their operations. And if you have ever been out there, there is some of the most beautiful Arizona sycamores, I am sure, in the whole state. I mean it is a beautiful area. And they have already created one forest fire

from welding.

So I don't know if there is any way that you can put an earmark on the project that specifies that the merchants will not degrade the environment, the water table, or the air pollution.

And I will mention that I did get the compliance of Phelps Dodge to clean the polluted water in our public water in Green Valley. And it had uranium coming in, which actually was alpha, gamma, and radon. And that would be the same in Harshaw. That area is -- has a lot of uranium in it as a waste product. So that waste product would go to the environment.

So I would suggest and hope that the Hunt company would avoid the route through Sonoita or any other to avoid the degradation of that area.

Thank you.

CHMN. CHENAL: Okay. Ms. Freeman, thank you very much for your comments, for coming down and providing us the maps. The nature of public comment is we can't really get into an exchange with you.

MS. FREEMAN: I understand that.

CHMN. CHENAL: But we very much appreciate the time you took to come and address us this evening. And it gives us things to think about, and then we can address that with the applicant when we resume our

hearing tomorrow. So I appreciate that.

Are there any other, any other people want to comment this evening?

I see some people in the audience, if anyone wants to address the Committee. Okay.

Sir, if you would, would you please come up to the microphone, give us your name, and we are interested in what you have to say.

MR. JUHLIN: Okay. My name is Ben Juhlin. I actually live on Elephant Head. I am one of the houses where the power lines exist right now. They run right over my house.

The concerns that I have are the voltages that's going on through these lines, the poles, they are going to change in size, things of that nature. I knew when I bought my land. I am not saying, hey, you know, this is wrong. The poles were there when I bought my land. I accepted them when I bought my land. I am not too keen on having poles or lines, which I understand are going to be three times as powerful as they are right now, 200 feet away from my house, doesn't exactly excite me.

I don't know what to say. You have to come across my land. They have an easement for it to maintain and whatnot. I am not exactly sure they have the easement to put new stuff up. But I am a little

sketchy having those size lines over my home. You don't hear how they snap, crackle, and pop.

Any taller poles, when we get struck by lightning four or five, six times a year out there on the poles, I don't know if I want a bigger pole out there attracting more lightning to my land, so to speak.

So I am just a little concerned what is going on out there. I haven't seen any pamphlets; although, I honestly haven't had time to do research as far as what is going on other than the little bit that I do know. But it just kind of sketches me out a little bit having those big lines out there. So I don't know who else -- what else I can do. I am one little guy. So I am not happy about it.

CHMN. CHENAL: What is your name again, sir?

MR. JUHLIN: Ben Juhlin, J-U-H-L-I-N.

CHMN. CHENAL: Ben Juhlin. I would suggest you speak with the gentleman at the far end, Mr. Beck --

MR. JUHLIN: All right.

CHMN. CHENAL: -- to ask him some questions about the concerns you have raised. He may be able to answer some of your questions. We can't really tonight in the context of public comment.

MR. JUHLIN: Sure.

CHMN. CHENAL: But I think he can help you with

some of the concerns you have raised.

MR. JUHLIN: Thank you.

CHMN. CHENAL: Would anyone else like to address the Committee this evening?

(No response.)

CHMN. CHENAL: All right. Looks like there is no further comments. So we will adjourn this evening and we will resume tomorrow morning at 9:00 a.m.

Thank you, everybody.

(The hearing recessed at 6:14 p.m.)

STATE OF ARIZONA)
COUNTY OF MARICOPA)

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I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206 (J)(1)(g)(1) and (2). Dated at Phoenix, Arizona, this 12th day of September, 2017.

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COLETTE E. ROSS
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