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BEFORE THE ARIZONA POWER PLANT  
AND TRANSMISSION LINE SITING COMMITTEE

In the matter of the Joint Application ) DOCKET NO.  
of Nogales Transmission, L.L.C. and ) L-00000F-17-  
UNS Electric, Inc. ("UNSE"), in ) 0246-00176  
conformance with the requirements of )  
Arizona Revised Statutes §40.360, et ) L-00000CCC-17-  
seq., for Certificates of Environmental ) 0246-00176  
Compatibility authorizing construction )  
of the Nogales Interconnection Project )  
and the UNSE Nogales Tap to Kantor ) Case No. 176  
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. ) VOLUME III  
) PAGES 397 - 567

At: Tucson, Arizona  
Date: September 7, 2017  
Filed: September 13, 2017

REPORTER'S TRANSCRIPT OF PROCEEDINGS

COASH & COASH, INC.  
Court Reporting, Video & Videoconferencing  
1802 N. 7th Street, Phoenix, AZ 85006  
602-258-1440 staff@coashandcoash.com

By: Colette E. Ross, CR  
Certified Reporter  
Certificate No. 50658

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1 BE IT REMEMBERED that the above-entitled and  
2 numbered matter came on regularly to be heard before the  
3 Arizona Power Plant and Transmission Line Siting  
4 Committee, at the Desert Diamond Casino, 7350 South  
5 Nogales Highway, Tucson, Arizona, commencing at 9:11  
6 a.m. on the 7th of September, 2017.

7

BEFORE: THOMAS K. CHENAL, Chairman

8

LAURIE WOODALL, Arizona Corporation Commission

9

LEONARD DRAGO, Department of Environmental  
Quality

10

JOHN RIGGINS, Arizona Department of Water  
Resources

11

JIM PALMER, Agriculture, Appointed Member

12

MARY HAMWAY, Cities/Towns, Appointed Member

13

JACK HAENICHEN, Public Member

14

PATRICIA NOLAND, Public Member

15

RUSSELL JONES, Public Member

16

APPEARANCES:

17

For the Applicant Nogales Transmission, L.L.C.:

18

EVERSHEDS SUTHERLAND (US) L.L.P.

19

By Mr. James E. Guy and Ms. Erin Elizabeth Morrissey

20

One American Center

21

600 Congress Avenue, Suite 2000

22

Austin, Texas 78701

23

24

25

1 APPEARANCES:

2 For the Applicant UNS Electric, Inc.:

3 UNS ENERGY CORP.  
4 Legal Department  
5 By Ms. Megan DeCorse  
6 88 East Broadway Boulevard  
7 Tucson, Arizona 85701

8 and

9 SNELL & WILMER, L.L.P.  
10 By Mr. J. Matthew Derstine  
11 One Arizona Center  
12 400 East Van Buren, Suite 1900  
13 Phoenix, Arizona 85004

14 For the Arizona State Land Department:

15 OFFICE OF THE ATTORNEY GENERAL  
16 By Mr. David F. Jacobs  
17 Assistant Attorney General  
18 416 West Congress Street, 2nd Floor  
19 Tucson, Arizona 85701

20 For the Arizona Corporation Commission Staff:

21 Mr. Charles H. Hains and Ms. Naomi Davis  
22 Staff Attorneys  
23 1200 West Washington Street  
24 Phoenix, Arizona 85007

25

1 (Present for the tour: Applicants, Chairman  
2 Chenal, Members Haenichen, Drago, Riggins, Hamway, and  
3 Palmer)  
4

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

11 MR. BECK: 2.

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

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

14 (The tour proceeded to Stop 1.)  
15

16 STOP 1

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

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

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

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

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

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

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

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

25 MR. BECK: We would build a new circuit and

1 these would come down. They get taken away.

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

8 MEMBER HAMWAY: I have a question.

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

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

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

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

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

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

22 MEMBER HAENICHEN: Okay. I got you.

23 MR. BECK: Yeah.

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

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

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

7 MEMBER HAMWAY: I didn't get that yesterday.

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

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

12 MS. ALSTER: Okay.

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

15 MS. ALSTER: Right, right, right.

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

18 I think that's it.

19 CHMN. CHENAL: Thank you very much.

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

21 (The tour proceeded to the Stop 2.)

22

23 STOP 2

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

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

1 the second stop.

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

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

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

15 CHMN. CHENAL: Oh.

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

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

1 MR. BECK: No.

2 CHMN. CHENAL: Okay. Would you explain that.

3 MR. BECK: Yes. If we had gone with

4 Alternative 1 and continued with that as our preferred,

5 from the point where we stopped previously and we were

6 going to cross over Wilmot, there would be no crossing.

7 We would continue in a straight line to the south.

8 That's one of the benefits of that alignment, there is

9 no turning structures. And we would continue straight

10 down, continue down the west side of Wilmot all the way

11 to where we join up with the existing line on the

12 diagonal. Because, if you recall from our diagrams, the

13 line heads south, existing line, and then it turns to

14 almost at a 45 degree angle going across the Santa Rita

15 Experimental Range.

16 CHMN. CHENAL: How far approximately from here

17 is that point, approximately?

18 MR. BECK: Is it four miles?

19 MS. DARLING: Nine and a half -- from here or

20 the beginning?

21 MR. BECK: From here.

22 CHMN. CHENAL: From here.

23 MS. DARLING: From here, five miles.

24 CHMN. CHENAL: Roughly five miles.

25 MR. BECK: Because there is nine and a half

1 miles.

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

4 MR. BECK: Right.

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

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

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

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

15 MS. ALTSER: Okay, got you.

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

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

20 MEMBER HAMWAY: And who owns this structure?

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

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

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

3 MEMBER HAMWAY: Okay.

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

8 CHMN. CHENAL: All right. Any more questions?

9 (No response.)

10 CHMN. CHENAL: All right. Thanks.

11 MR. BECK: Okay.

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

13 (The tour proceeded to Stop 3.)

14

15 STOP 3.

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

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

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

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

1 CHMN. CHENAL: But still east of Wilmot.

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

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

6 MR. BECK: Yes, approximately a couple miles.

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

16 MEMBER HAENICHEN: Who controls that range?

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

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

21 MR. BECK: I believe so.

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

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

1 around. But they are pretty protective of it.

2 So any questions at this point?

3 (No response.)

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

7 CHMN. CHENAL: Okay. Thank you.

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

9 (The tour proceeded to Stop 4.)

10

11 STOP 4.

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

13 MR. BECK: So what we are looking at here is  
14 Kantor substation to the south. We are standing, at  
15 least the bus is, more or less under the 46kV line. Our  
16 138 is next to that. And in this stretch we would be on  
17 the east side of the existing line coming into Kantor.

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

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

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

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

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

8 CHMN. CHENAL: Santa Cruz County.

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

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

16 MEMBER HAENICHEN: Right.

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

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

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

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

1 MS. ALSTER: Got it. The Wilmot.

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

11 MEMBER HAENICHEN: How do they climb them then?

12 MR. BECK: We use bucket trucks.

13 MEMBER HAENICHEN: Use just trucks, big boom.

14 MEMBER HAMWAY: Cherry pickers.

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

19 Any questions?

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

1 actually need to access structures.

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

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

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

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

13 CHMN. CHENAL: Got it.

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

20 MEMBER HAENICHEN: Thank you for a very  
21 informative tour.

22 MEMBER HAMWAY: Yeah. It has been very helpful.

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

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

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

5 CHMN. CHENAL: Okay.

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

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

10 CHMN. CHENAL: We are off. Thanks.

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

12 (The tour proceeded to the hearing room.)

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

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

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

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

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

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

13 Mr. Drago.

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

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

23 MEMBER DRAGO: Thank you.

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

1 have got plenty of exhibits.

2 Any other housekeeping items from any of the  
3 members?

4 Yes, Member Haenichen.

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

7 MR. GUY: It is.

8 MEMBER HAENICHEN: Thank you.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 design is very well done.

2 Thank you.

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

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

21 CHMN. CHENAL: All right. Thank you.

22 Member Woodall.

23 MEMBER WOODALL: I note that the application  
24 has --

25 MEMBER HAMWAY: We can't hear.

1 MEMBER WOODALL: Can you hear me now?

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

8 I am sorry. I forgot your name.

9 Thank you.

10 CHMN. CHENAL: Thank you for your comments.

11 Mr. Guy.

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

14 CHMN. CHENAL: Okay. Ms. Morrissey.

15 MS. MORRISSEY: Thank you, Mr. Chairman.

16

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

22

23 DIRECT EXAMINATION CONTINUED

24 BY MS. MORRISSEY:

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

COASH & COASH, INC.  
www.coashandcoash.com

602-258-1440  
Phoenix, AZ

1 record.

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

3 My name is Michelle Bissonnette.

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

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

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

11 A. (BY MS. BISSONNETTE) Yes.

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

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

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

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

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

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

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

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

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

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

6 Q. Thank you.

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

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

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

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

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

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

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

19 CHMN. CHENAL: All right. Thank you.

20 Any objections?

21 (No response.)

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

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

1 MS. MORRISSEY: Thank you, Mr. Chairman.

2 BY MS. MORRISSEY:

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

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

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

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

15 (Brief pause.)

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

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

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

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

1 is hard to read that screen from here.

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

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

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

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

18 BY MS. MORRISSEY:

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

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

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

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

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

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

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

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

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

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

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

19 Q. And what is the basis for your conclusions?

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

1 whether a CEC should be granted.

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

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

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

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

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

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

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

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

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

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

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

1 of the Nogales interconnection project?

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

9 And the terrain is characterized by extensive  
10 patterns of short, dissected ridges and draws formed  
11 along longer ridges descending from the nearby  
12 mountains. There is approximately 56 percent of the  
13 area that consists of developed land, with the remaining  
14 44 percent consisting mostly of natural habitat, with  
15 some evidence of grazing and development. And as we saw  
16 on the tour yesterday, the eastern portion of the  
17 project is much more developed than the western portion  
18 of the project that is close to the CNF.

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

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

1 within one mile of the routes include:

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

8 And also -- go ahead.

9 Q. Please elaborate.

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

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

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

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

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

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

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

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

21 A. (BY MS. BISSONNETTE) Yes. Approximately  
22 56 percent of the land within one mile of the project  
23 area or one mile of the project is developed, and  
24 44 percent of the land consists of natural vegetative  
25 communities. Examples of vegetation may include

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

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

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

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

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

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

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

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

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

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

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

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

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

14 A. (BY MS. BISSONNETTE) Yes. This map shows the  
15 HDR biological survey. And starting in the east, most  
16 of this area was surveyed, basically the route segment  
17 10 over in the western area. Some of this we had -- we  
18 didn't have right of entry for some of these access  
19 points. And no -- we surveyed for agave, Pima pineapple  
20 cactus, Santa Cruz beehive cactus and supine bean, and  
21 there was no Pima pineapple cacti documented.

22 And as part of the Section 7 consultation, the  
23 DOE draft EA did additional fieldwork, as I mentioned  
24 before, on Alternative Route 3. So approximately  
25 70 percent of the 5.1 miles of transmission line

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

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

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

15 The initial survey documented 27 agave, and then  
16 94 were documented in the DOE EA. Many of the Santa  
17 Cruz beehive cacti and one potential supine bean was  
18 documented. And there is habitat for yellow-nosed  
19 cotton rat and large flowered blue star, and there are  
20 numerous other species that were protected by the  
21 Arizona native plant law. And again, these will get  
22 into more detail in the biological assessment.

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

1 they anticipate applying?

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

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

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

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

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

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

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

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

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

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

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

1 industrial.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

17 CHMN. CHENAL: Yes, Member Noland.

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

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

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

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

5 MS. BISSONNETTE: Okay.

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

9 CHMN. CHENAL: Thank you, Member Noland.  
10 Member Woodall.

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

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

24 And that is your conclusion?

25 MS. DARLING: Yes.

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

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

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

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

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

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

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

25 BY MS. MORRISSEY:

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

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

5 MS. MORRISSEY: I apologize.

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

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

15 MEMBER HAMWAY: Okay. Thank you.

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

19 MS. BISSONNETTE: Correct.

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

22 MS. BISSONNETTE: Correct, yes.

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

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

4 MS. BISSONNETTE: Yes, that's correct.

5 CHMN. CHENAL: All right. Thank you.

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

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

13 CHMN. CHENAL: Please proceed.

14 MS. BISSONNETTE: Okay. Thank you.

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

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

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

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

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

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

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

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

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

25 BY MS. MORRISSEY:

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

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

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

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

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

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

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

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

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

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

1 project. I just wanted to add that.

2 CHMN. CHENAL: Thank you.

3 Member Jones.

4 MEMBER JONES: Thank you, Mr. Chairman.

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

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

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

18 MEMBER JONES: Mr. Chairman, both.

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

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

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

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

1 dance for us later up on the table.

2 MEMBER JONES: That's really not visual.

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

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

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

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

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

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

18 BY MS. MORRISSEY:

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

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

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

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

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

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

15 Q. Okay. And for the Pajarita Wilderness?

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

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

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

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

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

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

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

10 Q. What impacts did these cultural resource surveys  
11 identify?

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

25 Three sites are recommended not eligible for

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

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

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

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

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

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

12 CHMN. CHENAL: Member Hamway.

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

15 MS. BISSONNETTE: Correct.

16 MEMBER HAMWAY: Who is the landowner?

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

20 MEMBER HAMWAY: Okay. So is it private land?

21 MS. BISSONNETTE: Yes.

22 MEMBER HAMWAY: I can't remember.

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

1 surveyed in the past.

2 BY MS. MORRISSEY:

3 Q. And to clarify, if another route were chosen,  
4 would the applicants also make that same good faith  
5 effort?

6 A. (BY MS. BISSONNETTE) Yes.

7 Q. And finally, Ms. Bissonnette, could you please  
8 discuss the noise factor that is also analyzed by this  
9 Committee.

10 A. (BY MS. BISSONNETTE) Yes. The impacts from  
11 noise would be during construction, the short-term  
12 noise, variable and intermittent. And it would be  
13 during daytime hours. The limited impacts to  
14 sensitive -- it would be limited impacts to sensitive  
15 receptors.

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

21 The mitigation that would be applied, the  
22 applicants would mitigate the substation noise by  
23 designing equipment to comply with the City of Nogales  
24 noise ordinance.

25 Q. So Ms. Bissonnette, given that you have just

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

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

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

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

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

3 CHMN. CHENAL: Member Riggins.

4 MEMBER RIGGINS: Thank you, Mr. Chairman.

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

12 MS. BISSONNETTE: Mariposa Wash.

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

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

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

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

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

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

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

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

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

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

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

10 MR. RIGGINS: Okay.

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

13 MEMBER RIGGINS: Okay. Yes. Thank you.

14 MS. DARLING: You are welcome.

15 CHMN. CHENAL: Member Jones.

16 MEMBER JONES: Thank you, Mr. Chairman.

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

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

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

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

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

8 MEMBER JONES: I am just aiding and abetting  
9 him.

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

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

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

3 CHMN. CHENAL: The permit being the CEC permit?

4 MS. BISSONNETTE: Presidential Permit.

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

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

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

14 MS. BISSONNETTE: Yes.

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

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

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

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

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

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

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

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

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

25 CHMN. CHENAL: Very good, because that was going

1 to be my next question to Ms. Bissonnette.

2 Go ahead.

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

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

19 MEMBER NOLAND: Mr. Chairman.

20 CHMN. CHENAL: Yes, Member Noland.

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

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

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

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

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

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

1 good with all of the conditions.

2 CHMN. CHENAL: Okay.

3 That was my concern, Member Noland.

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

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

12 MEMBER NOLAND: Okay. Thank you.

13 MEMBER DRAGO: I do have --

14 CHMN. CHENAL: Member Drago.

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

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

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

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

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

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

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

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

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

6 MEMBER DRAGO: Got you. Thank you.

7 CHMN. CHENAL: Sure. Good.

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

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

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

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

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

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

19 CHMN. CHENAL: Okay.

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

22 CHMN. CHENAL: They are excused.

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

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

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

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

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

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

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

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

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

23 (No response.)

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

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

3 CHMN. CHENAL: Yes.

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

6 DR. C-EMORDI: Oath.

7 CHMN. CHENAL: Mr. Gray.

8 MR. GRAY: An oath.

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

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

13 CHMN. CHENAL: Thank you very much.

14 Mr. Hains.

15

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

21

22 DIRECT EXAMINATION

23 BY MR. HAINS:

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

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

5 Q. Thank you.

6 And by whom are you employed and in what  
7 capacity?

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

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

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

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

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

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

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

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

4 Q. Thank you.

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

8 A. (BY DR. C-EMORDI) Yes. I have a bachelor's  
9 degree in chemistry, as well as computer engineering  
10 science from the City University of New York. I also  
11 have a master's of science in engineering, in civil and  
12 environmental engineering, from the University of  
13 Michigan Ann Arbor. I have a doctorate in sustainable  
14 energy systems from Arizona State University. And since  
15 2015 I have been employed at the ACC as an electrical  
16 engineer.

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

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

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

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

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

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

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

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

22                   So if I am to expound further, in the next  
23 slide, as described by the applicants, the upgrade of  
24 the existing transmission line is a 27 and a half mile  
25 138kV transmission line. And the upgrades entail

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

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

17           The other new builds are a three-mile, I  
18 believe, a three-mile 138 double-circuit transmission  
19 line that is owned by UNSE. And one circuit would  
20 connect to the Valencia transmission line at a point  
21 1900 feet north of the Valencia substation, and the  
22 second circuit would connect to the Valencia substation.  
23 The other new build is the two miles of single circuit  
24 with double circuit capable kV line that connects to  
25 CFE, or CENACE, at the U.S.-Mexico border.

1           If you go back one slide.

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

8           Q.       Thank you.

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

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

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

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

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

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

22           The buffer zone is typically plus or minus  
23 5 percent for safe operation of the grid. So the  
24 applicants have indicated that the report showing that  
25 particular overload in that contingency scenario has

1 been provided to WAPA for review.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

13 MEMBER WOODALL: Thank you.

14 CHMN. CHENAL: Member Haenichen.

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

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

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

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

4 MEMBER HAENICHEN: Haenichen.

5 CHMN. CHENAL: Haenichen.

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

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

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

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

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

3 MEMBER HAENICHEN: Thank you.

4 DR. C-EMORDI: Thank you.

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

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

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

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

1 could just agree.

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

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

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

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

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

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

3 I hope that answers your question in some  
4 fashion.

5 CHMN. CHENAL: It does. It is helpful.

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

10 DR. C-EMORDI: That's correct.

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

16 DR. C-EMORDI: If --

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

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

1 to Valencia.

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

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

16 Member Drago.

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

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

22 MEMBER DRAGO: Drago.

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

25 MEMBER DRAGO: How concerned are you that that

1 contingency -- yeah, those 1 percent.

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

7 Now, the assessment does indicate that it is a  
8 1 percent overload. And this is not new. Based on my  
9 conversations with the applicant and data request  
10 responses, there are three owners of that particular  
11 substation, and they are aware that that is a possible  
12 scenario. But they do not seem concerned by that  
13 1 percent because typically in engineering, a plus or  
14 minus 5 percent buffer is anticipated in transmission  
15 line design. And so I do feel comfortable that this  
16 would not affect grid safety operations.

17 However, if, you know, they go up to 300  
18 megawatts in the future, or if the configuration  
19 changes, that would be a different system impact study,  
20 and then we would be looking at that substation to see  
21 if the overload is more than 1 percent or more than  
22 5 percent. But typically plus or minus 5 percent is our  
23 comfort level.

24 Does that answer your question?

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

1 want to follow up.

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

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

6 MEMBER DRAGO: Okay. Thank you.

7 CHMN. CHENAL: Member Hamway.

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

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

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

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

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

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

1 MEMBER HAMWAY: Okay.

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

8 To your second question about --

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

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

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

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

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

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

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

1 combination of contingencies that can cause an outage.

2 Does that -- I hope that answers your question.

3 MEMBER HAMWAY: Thank you.

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

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

11 DR. C-EMORDI: Yes, I am.

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

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

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

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

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

25

## 1 DIRECT EXAMINATION

2 BY MS. DAVIS:

3 Q. Hello, Mr. Gray.

4 A. (BY MR. GRAY) Hello.

5 Q. Would you please state and spell your full name  
6 for the record.7 A. (BY MR. GRAY) Sure. My name is Robert Gray,  
8 R-O-B-E-R-T, G-R-A-Y.

9 Q. And who is your employer?

10 A. (BY MR. GRAY) My employer is the Arizona  
11 Corporation Commission.12 Q. And in connection with your testimony here  
13 today, did you prepare a slide show to assist you in  
14 your testimony?

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

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

17 Mr. Gray, what is your job title?

18 A. (BY MR. GRAY) I am a public utility manager in  
19 the Utilities Division of the Corporation Commission.20 Q. Could you describe your duties and  
21 responsibilities as a public utility manager for the  
22 Corporation Commission?23 A. (BY MR. GRAY) Sure. I am in the policies and  
24 program section of the Commission, and I supervise a  
25 number of employees. I also do direct casework on a

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

3 Q. How long have you held that position?

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

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

8 A. (BY MR. GRAY) I was employed at the Arizona  
9 Corporation Commission. I have been with Staff since  
10 1990.

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

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

18 Q. And what is your educational background?

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

23 Q. Do you have any other relevant professional  
24 experience?

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

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

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

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

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

17 A. (BY MR. GRAY) Yes.

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

20 A. (BY MR. GRAY) I did.

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

23 A. (BY MR. GRAY) Yes.

24 Q. Could you describe what you reviewed, please?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10 So in looking at that, there are parts of this  
11 project that are specifically merchant, particularly the  
12 230 transmission line and the Nogales Gateway  
13 substation. And my understanding is the other parts are  
14 being developed in support of the merchant aspect.

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

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

1 then they would demonstrate the need that way.

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

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

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

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

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

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

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

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

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

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

18 A. (BY MR. GRAY) Yes.

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

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

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

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

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

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

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

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

16 (No response.)

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

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

21 MS. DAVIS: Thank you.

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

25 CHMN. CHENAL: Okay. Member Woodall.

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

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

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

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

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

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

22 MEMBER WOODALL: Thank you. Thank you, sir.

23 CHMN. CHENAL: Member Jones.

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

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

9 MEMBER WOODALL: Thank you.

10 CHMN. CHENAL: Member Haenichen.

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

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

19 MEMBER HAENICHEN: I understand that, Mr. Jones.

20 MEMBER JONES: -- in the system.

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

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

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

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

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

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

12 MEMBER JONES: Yeah.

13 CHMN. CHENAL: Any --

14 MEMBER HAMWAY: I have one.

15 CHMN. CHENAL: Okay, Member Hamway.

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

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

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

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

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

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

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

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

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

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

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

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

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

19 MEMBER HAMWAY: Okay. Thank you.

20 CHMN. CHENAL: Member Haenichen.

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

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

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

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

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

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

20 MEMBER HAENICHEN: Good answer. Thank you.

21 CHMN. CHENAL: Member Jones.

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

1 improvements are made.

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

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

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

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

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

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

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

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

12 MEMBER JONES: Thank you.

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

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

1 different countries' different phasing?

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

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

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

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

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

6 DR. C-EMORDI: Yes, it is.

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

9 DR. C-EMORDI: Both ways.

10 CHMN. CHENAL: -- both ways.

11 DR. C-EMORDI: Yes.

12 CHMN. CHENAL: In all cases.

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

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

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

18 CHMN. CHENAL: Mr. Gray, a couple questions.

19 One, one of your slides refers to firm and nonfirm  
20 power. I would just like you to explain what the  
21 difference is between the two.

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

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

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

8 MR. GRAY: Yes.

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

16 MR. GRAY: That's correct.

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

20 MR. GRAY: No, no.

21 CHMN. CHENAL: Okay.

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

1 what they proposed.

2 CHMN. CHENAL: All right. Good.

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

5 Excuse me. Member Hamway.

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

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

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

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

25 MEMBER HAMWAY: Right, okay.

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

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

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

7 MR. GUY: We have no questions.

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

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

14

15 FURTHER DIRECT EXAMINATION

16 BY MR. HAINS:

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

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

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

8 I realize those two might be mutually exclusive.

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

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

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

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

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

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

1 A. (BY DR. C-EMORDI) Absolutely, yes.

2 Q. And those are the distribution level  
3 improvements that you had indicated?

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

5 Q. And because those would be at below 115kV level,  
6 those would not typically require a CEC in order to  
7 facilitate?

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

9 Q. With regard to -- there was a question about the  
10 need burden. And not wanting to belabor that point, but  
11 would you agree that ultimately what Staff's purpose is  
12 to do was to develop a record that is amenable to and  
13 consistent with how the Commission would evaluate the  
14 application for it once a CEC is approved by the  
15 Committee, and, to that extent, we are looking at, on  
16 the need side, the need for reliable, adequate, and  
17 economic, in this case, transmission?

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

19 Q. And when you are referring to the need burden,  
20 that's a shorthand way of referring to those three  
21 aspects of the need evaluation?

22 A. (BY DR. C-EMORDI) Yes, especially with regard  
23 to reliability from a technical standpoint, yes.

24 Q. So to the extent that you had indicated  
25 to Member Hamway, I believe was the one that asked those

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

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

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

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

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

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

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

25 Q. And nonfirm would be things like spot purchases

1 and things like that?

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

3 CHMN. CHENAL: Member Jones.

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

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

15 MEMBER JONES: Thank you.

16 BY MR. HAINS:

17 Q. But in any event --

18 No other question?

19 MEMBER JONES: Yes, that answered my question.

20 BY MR. HAINS:

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

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

6 A. (BY MR. GRAY) Yes.

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

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

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

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

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

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

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

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

14 A. (BY MR. GRAY) Correct.

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

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

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

1 (No response.)

2 CHMN. CHENAL: Thank you very much.

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

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

8 CHMN. CHENAL: Okay, good. Let's take a  
9 10-minute break.

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

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

13 Mr. Guy.

14 MR. GUY: I am ready.

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

17 EDMOND BECK and MATT VIRANT,  
18 recalled as witnesses on behalf of the Applicants,  
19 having been previously duly sworn by the Chairman to  
20 speak the truth and nothing but the truth, were examined  
21 and testified as follows:

22

23 DIRECT EXAMINATION

24 BY MR. GUY:

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

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1 environmental panel was testifying?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

18 MR. GUY: Thank you, Mr. Beck.

19 MEMBER HAMWAY: I have a question.

20 CHMN. CHENAL: Member Hamway.

21 MEMBER HAMWAY: Thank you, Mr. Chairman.

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

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

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

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

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

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

24 MEMBER HAMWAY: Right.

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

1 what started as a very -- our standard was a dark,  
2 called it Mohave Sage. It was a dark green color.  
3 Through a long extended process of analysis with input  
4 from public, that was the color selected back in the  
5 '80s. But we put those poles in on a lot of our system,  
6 and those poles today, where they haven't been  
7 repainted, are basically white. They chalk down to a  
8 white color and/or rusting.

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

13 MEMBER HAMWAY: I would never suggest painting.

14 MR. BECK: Okay.

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

17 MR. BECK: 2008, 2009.

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

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

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

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

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

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

10 MEMBER NOLAND: Mr. Chairman.

11 CHMN. CHENAL: Member Noland.

12 MEMBER HAMWAY: Thank you.

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

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

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

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

5 CHMN. CHENAL: Yeah, part of the exercise of  
6 making a record. But my sense is there is no one --  
7 that we are in agreement with the sentiments expressed,  
8 but just to make the record, I think it is important we  
9 ask the questions and appreciate that we have done that.  
10 So if there are any other further questions --  
11 Member Haenichen.

12 MEMBER HAENICHEN: Not on this issue.

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

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

18 CHMN. CHENAL: Okay. Member Haenichen.

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

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

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

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

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

21 MEMBER HAENICHEN: Okay.

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

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

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

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

1 get that reliability benefit on the UNSE specific  
2 system.

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

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

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

23           MEMBER HAENICHEN: I understand that.

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

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

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

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

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

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

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

8 MR. GUY: Mr. --

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

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

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

25 We have a Presidential Permit, but it is

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

7 MEMBER HAENICHEN: That is very nice of you.

8 BY MR. GUY:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

14 Q. Thank you.

15 A. (BY MR. BECK) There was one other question  
16 regarding pole heights. And I have been informed that  
17 the existing line ranges from 83 and a half feet to  
18 95 foot tall structures on the upgrade portion. And in  
19 our application we are indicating 75 to 110 feet for the  
20 new structures.

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

1 poles that are out there today.

2 MR. GUY: Thank you.

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

8 A couple questions for Mr. Virant.

9 BY MR. GUY:

10 Q. Mr. Virant, do you recall some questions when  
11 you provided testimony about whether there were any  
12 affiliates of Hunt Power that had ownership of  
13 generation? Do you recall those questions?

14 A. (BY MR. VIRANT) Yes.

15 Q. And were you able to look into that, and do you  
16 have additional information you can share?

17 A. (BY MR. VIRANT) Yes, we have. No changes to  
18 the answer, not aware of any generation or involvement  
19 with generation by Hunt entities in Arizona, as I  
20 responded to the question, probably incorrectly for the  
21 question that was asked, also true of the United States.  
22 And there is Hunt entities, or there is a Hunt entity  
23 that has interest in generation, but it is in South  
24 America.

25 Q. And --

1 CHMN. CHENAL: Member Hamway.

2 MEMBER HAMWAY: So when you have an open  
3 solicitation, is it international or just a U.S.  
4 solicitation?

5 MR. VIRANT: Well, it is a solicitation for the  
6 transmission capacity within the U.S.

7 MEMBER HAMWAY: Right.

8 MR. VIRANT: Or under FERC, Federal Energy  
9 Regulatory Commission's jurisdiction. The principles of  
10 that solicitation and the practices for these merchant  
11 projects would allow any entity to participate in that  
12 provided they meet the screening criteria of the  
13 solicitation.

14 I think if I were trying to tie this response  
15 back to my last question, the potential involvement of a  
16 wind farm in Costa Rica in this open solicitation, it  
17 isn't possible.

18 And further, in the petition for declaratory  
19 order and the filings with FERC, we have stated that no  
20 affiliate of Nogales operations would be participating  
21 in the open solicitation. So I know that wasn't your  
22 implication by your question, but if I were to try and  
23 tie those concepts together, just because they were near  
24 each other, that would be the full response.

25 MEMBER HAMWAY: Thank you. Actually, that was a

1 question in my head. I just didn't ask it.

2 MR. VIRANT: Very good.

3 CHMN. CHENAL: I want to ask a follow-up  
4 question here. Is the same true for UNSE, are they a  
5 possible part of this -- partner in the solicitation or  
6 make a bid in the solicitation?

7 MR. BECK: Because of the FERC rules and the  
8 firewalls that we have between the different parts of  
9 our organization, I am not privy to what our marketing,  
10 what we call our marketing side is doing. We do know  
11 they are aware of this open solicitation, and they had  
12 indicated that they would be looking at it. And our  
13 expectation is it would make sense for them to do it.  
14 But whether they have or submitted I do not know.

15 CHMN. CHENAL: Thank you.

16 Member Jones.

17 MEMBER JONES: I just wanted to be sure we were  
18 clear on this. Is it conceivable that a Mexican entity,  
19 having met all of the FERC requirements, could solicit  
20 and receive or participate?

21 MR. VIRANT: Yes. An entity based in Mexico,  
22 located in Mexico, a Mexican entity could acquire  
23 transmission capacity in an open solicitation. That  
24 would be very similar to their ability to acquire  
25 transmission capacity on any electric system in the U.S.

1 So yes, it is true, but it is not unique to this  
2 project.

3 MEMBER JONES: Okay. Thank you.

4 CHMN. CHENAL: Thank you.

5 BY MR. GUY:

6 Q. And Mr. Beck, Mr. Virant, just a follow-up on  
7 the Chairman's question. Mr. Beck, you mentioned you  
8 are not aware of whether, because of the firewalls,  
9 whether any affiliate of UNSE or TEP has participated in  
10 the open solicitation. But I just want to make sure to  
11 clarify there is nothing that would prohibit them doing  
12 so; in fact, they are the type of entity that could be  
13 interested in participating in the open solicitation?

14 A. (BY MR. BECK) Absolutely, nothing that would  
15 restrict them. And, in fact, if I were on the side, I  
16 would be very active in looking at the open  
17 solicitation, so...

18 Q. Mr. Virant, I had one more question. In your  
19 slides, one of the potential benefits you listed for the  
20 project was that it is an opportunity for increased  
21 economic development, I believe. And I think you may  
22 have had some questions regarding the basis of that  
23 potential benefit. Have you had a chance to sort of  
24 figure out where that came from?

25 A. (BY MR. VIRANT) I have consulted with others

1 and reviewed the DOE's environmental assessment. That  
2 information is provided in section 4.8 on  
3 socioeconomics. There are several socioeconomic factors  
4 that aren't affected. Those were found to be  
5 population, housing, and tourism. However, there were  
6 two factors that they listed as having positive impacts,  
7 employment and taxes and revenues.

8           There is plenty of detail in this section, but  
9 in general, section 4.8.2.2 is with regard to common  
10 impacts across all the alternatives. And it finds that  
11 in the employment and income category, there would  
12 likely be 30 to 50 construction jobs created as a result  
13 of the Nogales interconnection project, which would also  
14 have positive multiplier or spillover effects as they  
15 work down in the area. Similarly, in taxes and revenue,  
16 they found that there would be benefits to the study  
17 area as it relates to property taxes, sales taxes, and  
18 other income related to it.

19           And then just to close out, one thing I should  
20 have mentioned at the very beginning, the area studied  
21 was Santa Cruz County. So that was the area of  
22 analysis.

23           CHMN. CHENAL: Member Woodall.

24           MEMBER WOODALL: I have the section which you  
25 very kindly pointed out to it, and there was a reference

1 in there to taxes on the sale of electricity. And you  
2 will recall that I inquired of Mr. Gray whether or not  
3 he was aware if there were any sales taxes on sales of  
4 electricity. Do you know that?

5 MR. VIRANT: As a matter of fact, I do not.

6 MEMBER WOODALL: Okay, that's fine.

7 MR. VIRANT: I do have a CPA, but I have to  
8 admit I took the tax section more than once.

9 MEMBER WOODALL: I was just wondering if there  
10 would be an additional economic benefit, that there  
11 would be some sales taxes that would accrue to the State  
12 of Arizona. That's all I was getting at. I understand  
13 property taxes.

14 Mr. Beck.

15 MR. BECK: I don't know the specifics of the tax  
16 laws, but as we all know, everything gets taxed. And I  
17 suspect that whether or not the actual transaction is  
18 taxed directly, any income that is received by the  
19 entities will be taxed and it would show up there.

20 MEMBER WOODALL: Well, if it is an Arizona  
21 entity, that's a good thing. If it is a California  
22 entity, maybe that's not quite as good. So, okay, thank  
23 you.

24 MR. GUY: Mr. Chairman, I believe that's all the  
25 questions we have.

1 CHMN. CHENAL: Any follow-up questions by the  
2 Committee?

3 Any follow-up questions, Mr. Jacobs?

4 MR. JACOBS: No, I don't.

5 CHMN. CHENAL: Any follow-up questions,  
6 Ms. Davis or Mr. Hains?

7 MR. HAINS: No, not from Staff. Thank you.

8 CHMN. CHENAL: Okay. Very good. We made great  
9 progress. I think tomorrow it will make sense to start  
10 with the closing arguments. To the extent there will  
11 be, I don't think they will be that long. That is one  
12 thing that, you know, I think we can put off to  
13 tomorrow. I think it will give you an opportunity to  
14 prepare for it. And then we can move into the  
15 deliberations.

16 Two issues that I think we should talk about  
17 right now, at least that come to mind, and anything else  
18 anyone else wants to bring up.

19 Number one, we haven't had a formal stipulation  
20 on the record as far as the agreement that seems to have  
21 been reached between State Land Department and the  
22 applicant with regard to the Alternative 2, which was  
23 not the preferred route for the upgrade portion.

24 Has an agreement been reached? Is there any  
25 issue as far as that goes in connection with the CEC,

1 Mr. Jacobs?

2 MR. JACOBS: I can speak to that.

3 Yesterday you also spoke about getting the Land  
4 Department's exhibits in the record, so I have -- we  
5 can, I can get those in the record because I also have  
6 an additional exhibit, which both is the Land, the  
7 Deputy Land Commissioner's affirmation of the exhibits  
8 that were already filed, and his affirmation that the  
9 agreement as Mr. Beck stated yesterday is the Land  
10 Department's understanding of the agreement, and that,  
11 based on that agreement, the department will support the  
12 CEC application.

13 CHMN. CHENAL: And that would be Alternative 2  
14 for the upgrade route, is that correct?

15 MR. JACOBS: Correct. It is two paragraphs. I  
16 can read that into the record as well, if you would like  
17 me to.

18 CHMN. CHENAL: Short paragraphs?

19 MR. JACOBS: It is about three-quarters of a  
20 page.

21 CHMN. CHENAL: Well, I tell you what. Why don't  
22 we make it an exhibit. How many exhibits will you have  
23 if we include that as an exhibit?

24 MR. JACOBS: There is 1, 1-A, 1-B, and 2. That  
25 would be 2.

1 CHMN. CHENAL: Okay. And you have summarized  
2 the substance of the agreement, correct?

3 MR. JACOBS: Correct.

4 CHMN. CHENAL: Okay. Let's introduce your  
5 exhibits and see if there is any objection. First of  
6 all, has anyone seen them? Has the applicant or the ACC  
7 Staff, have they seen these?

8 MR. JACOBS: I discussed with counsel for the  
9 applicant. ACC Staff has not seen them.

10 CHMN. CHENAL: And that's the last -- the  
11 affirmation you are talking about? Because you  
12 introduced --

13 MR. JACOBS: 1, 1-A, 1-B have been filed and  
14 served.

15 CHMN. CHENAL: Correct.

16 MR. JACOBS: So it is just Exhibit 2, which only  
17 counsel for the applicant has seen.

18 CHMN. CHENAL: All right. Let's do this. Let's  
19 see if we can get 1, 1-A, 1-B admitted, and just review  
20 that Exhibit 2 with both parties. And assuming there is  
21 no objection, we will get that admitted tomorrow. Okay?  
22 Is that fair? Because I want to make sure that Staff  
23 has no objection to it. I don't think they will if it  
24 is acceptable to the applicant, but...

25 MR. HAINS: Chairman, on behalf of Staff, since

1 this isn't our issue and so long as it is a happy  
2 agreement between the applicant and State Land, I don't  
3 think we actually have any objection to it. I would  
4 like to see a copy of it at some point, but I don't  
5 think we would have any objection to its admission.

6 CHMN. CHENAL: Okay. And does the applicant  
7 have any objection to any of the exhibits?

8 MR. GUY: No. I think we have seen an e-mail  
9 version, so assuming the paper version matches the  
10 e-mail version, we don't have any objection to it  
11 whatsoever.

12 CHMN. CHENAL: Do you have extra copies,  
13 Mr. Jacobs?

14 MR. JACOBS: I have got 15 copies here. I can  
15 run them around if you would like me to.

16 CHMN. CHENAL: I believe we have already -- why  
17 don't you do that, and then let's get them admitted.

18 MR. JACOBS: Okay.

19 CHMN. CHENAL: Yes, Member Woodall.

20 MEMBER WOODALL: Mr. Beck, have you made an  
21 application for right-of-way and the route that the Land  
22 Department prefers yet?

23 MR. BECK: We have not made that yet, but we  
24 will be working on that. And I believe that's mentioned  
25 in this document.

1 MEMBER WOODALL: Okay. So it would be pretty  
2 soon.

3 MR. BECK: It would be relatively soon. And  
4 there is an indication from State Land that they will  
5 work to process it expediently.

6 MEMBER WOODALL: Thank you.

7 MR. GUY: Sorry for the delay, Mr. Chairman.  
8 The applicant reviewed the three exhibits and we have no  
9 objections.

10 CHMN. CHENAL: Okay. So Mr. Jacobs, you are  
11 moving for admission of SLD-1, SLD-1-A, SLD-1-B, and  
12 SLD-2, is that correct?

13 MR. JACOBS: That's correct.

14 CHMN. CHENAL: And SLD-2, on pages -- the bottom  
15 of page 2 and top of page 3 of SLD-2 basically  
16 summarizes the agreement that has been reached between  
17 State Land and the applicant, is that correct?

18 MR. JACOBS: That's correct.

19 CHMN. CHENAL: Okay. And is the applicant in  
20 agreement with what is represented in SLD-2?

21 MR. GUY: We are.

22 CHMN. CHENAL: Okay. So any objection to  
23 admission of SLD-1, SLD-1-A, SLD-1-B, or SLD-2?

24 (No response.)

25 CHMN. CHENAL: Okay. Hearing no objection,

1 SLD-1, SLD-1-A, SLD-1-B, and SLD-2 are admitted.

2 (Exhibits SLD-1, SLD-1-A, SLD-1-B, and SLD-2  
3 were admitted into evidence.)

4 MR. JACOBS: Thank you.

5 CHMN. CHENAL: I guess I will throw this out. I  
6 don't know that there is anything we need to include in  
7 the CEC specific as to the agreement, other than to note  
8 that we will talk about the route in a second and how we  
9 define it, but I am not thinking we have to somehow  
10 capture the stipulation or agreement inside the CEC. We  
11 will simply, you know, vote on the CEC with the routes  
12 set forth, and I am not sensing a need to treat, in the  
13 CEC, the agreement, unless anyone disagrees.

14 MR. JACOBS: No, I agree.

15 CHMN. CHENAL: Okay. So the next issue, the  
16 last issue I had was I think something that Mr. Guy and  
17 I just spoke briefly during the recess, is what is the  
18 preference of the Committee in terms of the description  
19 of the route. We had talked earlier whether it be legal  
20 description and/or GPS coordinates. There was a  
21 discussion about trying to come up with a legal  
22 description of the route.

23 And I guess I just open it up for discussion as  
24 to what progress has been made, whether there has  
25 been -- we have a legal description for the proposed

1 route and what the preference of the Committee might be.

2 Mr. Guy.

3 MR. GUY: We do --

4 MEMBER WOODALL: I just wanted to say it must be  
5 my five years of working with engineering firms, but I  
6 concur with Mr. Beck, that I would prefer a legal  
7 description. I think it would be easier for landowners  
8 as well. That's my personal preference.

9 MR. GUY: Well, and I will confirm that that is  
10 an option. We were able to, UNSE Staff was able to  
11 prepare a legal description. And the legal description  
12 is the centerline of a route, and then asking for a  
13 thousand-foot corridor.

14 So we have a legal description of a centerline  
15 for both the Nogales interconnection project and the  
16 Nogales Tap to Kantor project. Now, the Nogales Tap to  
17 Kantor is actually the current line, but then with the  
18 corridor, they would be allowed to construct anywhere  
19 within that corridor.

20 MR. JACOBS: May I inquire? Are you  
21 anticipating having a schematic depicting the route as  
22 an Exhibit A? Has that been contemplated, Mr. Beck?

23 MR. BECK: We do have both available. And to  
24 the extent the Committee would like to see the map  
25 version in there, it can be provided.

1 MEMBER WOODALL: I am just thinking that we  
2 have, in other CECs, we have provided legal. And then  
3 for the uninitiated into metes and bounds, we have had a  
4 diagram that was appended to the CEC. So, personally, I  
5 think that would be helpful. But I will defer to the  
6 wish of the majority.

7 MR. GUY: And if I may, just to be clear, the  
8 diagrams that we have, which I guess would be our  
9 preference, as opposed to creating a new diagram this  
10 evening, but we have the two exhibits -- and I don't  
11 recall the numbers -- that were circulated yesterday  
12 that have the GPS coordinates with the corridor. That's  
13 probably the most precise diagram and most descriptive  
14 diagram we have from a map perspective.

15 But then we also have the maps that we have been  
16 using during the hearing that are not nearly as  
17 detailed, don't have the GPS coordinates, but they would  
18 be akin to a schematic to show you geographically where  
19 the lines are. And so I think you have seen all the  
20 diagrams we have.

21 MEMBER WOODALL: I personally find the legal  
22 description to be more important, and the level of  
23 detail that is in the schematic is not a significant  
24 issue for me.

25 CHMN. CHENAL: I agree, although I don't see

1 that -- I mean I think to have both would be helpful. I  
2 mean put me in the class of the uninitiated. I can read  
3 a legal description until I am blue in the face. I get  
4 a lot more looking at a map, frankly. So if there is no  
5 objection --

6 Member Noland.

7 MEMBER NOLAND: Mr. Chairman, I would prefer  
8 that we have both the legal and then attach the corridor  
9 maps that you used with the GIS.

10 CHMN. CHENAL: Yeah, I would, too. I think  
11 that's what we would prefer. I think it is good to have  
12 both, frankly. So I applaud the applicant for pulling  
13 together a legal description in rather short order.

14 So we have a hearing, a public hearing at 6:00  
15 here for public comment. I want to ask the Committee  
16 kind of a question for future cases. Would it be the  
17 preference of the Committee in the future if we set the  
18 public hearing at a time other than 6:00?

19 MEMBER NOLAND: Yes.

20 CHMN. CHENAL: I mean I have done it, frankly,  
21 because it has been done like that. But I mean I don't  
22 know how convenient it is. We want to allow the public  
23 to attend, and if they work until 5:00 -- but a 6:00, I  
24 mean if we wait for an hour and then one person shows  
25 up, if that, you know, I just wonder, maybe we should

1 move it up to 5:30. What would be the preference of the  
2 Committee?

3 MEMBER WOODALL: 5:00.

4 MEMBER HAENICHEN: 5:30.

5 CHMN. CHENAL: 5:00? Okay. Then, you know, in  
6 the future I will endeavor to make the public hearings  
7 at, you know, for the public comment at 5:00.

8 Is there anything further we need to discuss  
9 before we adjourn for the 6:00 public comment?

10 We will have the final arguments tomorrow. We  
11 will have the deliberations. We will work on the CEC.

12 Mr. Guy, is there a draft of what you will have  
13 that's available? Certainly it will be available  
14 tomorrow as per usual. We will kind of review it as we  
15 go, up on the screen as we go, as we go along. Did you  
16 have any thoughts on that.

17 MR. GUY: I don't think we have a draft right  
18 this minute. I can certainly, if it is helpful, you  
19 know, we can e-mail the draft later this evening to the  
20 extent people want to spend time on it this evening.  
21 But if we don't have that, we will have a copy first  
22 thing in the morning.

23 The one thing that would perhaps be helpful,  
24 Mr. Chair, if it is something you are amenable to doing,  
25 is the one condition that we are struggling with a

1 little bit that we could use guidance on, perhaps the  
2 Game & Fish letter. There has been some discussion  
3 about that. To the extent we could get a sense from the  
4 Committee if the Committee has a preference, then it  
5 would give us direction this evening as to how to  
6 incorporate any potential conditions associated with  
7 that letter. And we have got a couple options, but --

8 CHMN. CHENAL: Well, I think a couple ways to  
9 go. And I think frankly, I am not married to either  
10 one, I just think there ought to be some clarity in the  
11 four corners of the document.

12 One way is to create a condition, I guess, that  
13 lays out the items that are set forth in the Game -- the  
14 mitigation measures. The other, I guess, as Member  
15 Noland suggested yesterday, we have a condition that  
16 says something like the applicant will comply with all  
17 mitigation measures set forth in the letter from Game &  
18 Fish to the Chairman dated such and such a date,  
19 attached and incorporated as reference as Exhibit A or  
20 Exhibit C, whatever exhibit it would be. I guess either  
21 way would be acceptable. I have a preference of the  
22 two, but I could live with either. But let's hear what  
23 the Committee has to say.

24 Member Noland.

25 MEMBER NOLAND: Well, Mr. Chairman, you just

1 stated my preference.

2 CHMN. CHENAL: Okay.

3 MEMBER WOODALL: I'm in accord with Member  
4 Noland.

5 MEMBER HAMWAY: I am, too.

6 CHMN. CHENAL: Okay.

7 MEMBER HAENICHEN: Me, too.

8 CHMN. CHENAL: All right. Okay. That's fine.

9 So I guess the direction is to have -- maybe we will  
10 make the letter an exhibit and have a very short  
11 succinct condition that, you know, says the applicant  
12 will comply with those mitigation measures.

13 MEMBER NOLAND: Mr. Chairman.

14 CHMN. CHENAL: Yes, Member Noland.

15 MEMBER NOLAND: I wanted to be sure that the  
16 Staff recommendations for conditions were the ones that  
17 were presented today. And you agreed that the  
18 applicant's wording on the gas line was okay with you,  
19 is that correct, Mr. Hains?

20 MR. HAINS: Chairman, Member Noland, yes. Staff  
21 has reviewed and had an opportunity to pore over and  
22 give a good think to the proposed revisions that the  
23 applicants are making. And Staff is comfortable with  
24 both of the two conditions, the gas one and for the  
25 participation and reliability requirements.

1 MEMBER NOLAND: Okay. And Mr. Chairman,  
2 Mr. Guy, or Mr. Beck, is the gas line condition along  
3 the same lines as we have seen in the past?

4 MR. GUY: Yes. The gas provision that we  
5 proposed in our draft CEC was the one approved in the  
6 Southline case.

7 MEMBER NOLAND: Okay.

8 MR. GUY: Just slightly different language than  
9 the precedent that Staff wrote from.

10 MEMBER WOODALL: I think that was an ancient  
11 condition as well.

12 MEMBER NOLAND: And Mr. Chairman, I would just  
13 like to note if there are any other conditions coming  
14 out of the woodwork that we haven't seen yet.

15 CHMN. CHENAL: I don't think so, Member Noland.  
16 I think -- I passed around ones that I had kind of  
17 noodled together, and I think you have seen the  
18 discussion on the ones that have been discussed by  
19 Staff. We talked about the Border Patrol matters that  
20 will be incorporated, probably have already been  
21 addressed in the draft that the applicant is working on.  
22 I am unfamiliar with any others.

23 MEMBER NOLAND: Okay.

24 CHMN. CHENAL: I mean if there are any others we  
25 should talk about, this would probably be a good time to

1 do it. But I am not thinking of any. And I appreciate  
2 the other ones, flesh this out now. I think it will  
3 save time tomorrow.

4 MR. GUY: It will.

5 MEMBER NOLAND: I think we should pretty much be  
6 able to go through them because we discussed most of  
7 them.

8 CHMN. CHENAL: Now, we will have two tomorrow,  
9 so, Mr. Guy, but the majority of the language will be  
10 the same for both. So there will be just slight  
11 differences. Maybe the one with the Nogales project, or  
12 the interconnection project, the Presidential Permit  
13 might have some additional language. Is that correct?

14 MR. GUY: That's right. As we looked at the  
15 evidence and listened to what was important to the  
16 Committee, largely the evidence is the same for both  
17 projects. And the way they can refer to the conditions  
18 is the same. Obviously one project has a Presidential  
19 Permit, so when we have Presidential Permit specific  
20 conditions, I believe they are just one or two, that  
21 hopefully will be the only difference.

22 MEMBER WOODALL: I am assuming the Border Patrol  
23 one is going to be in the interconnection, it is not  
24 going to be in the Kantor CEC, or is it?

25 MR. GUY: Well, the only change I have currently

1 made to address Border Patrol, at least my notes  
2 reflected, was to add that the applicants would comply  
3 with FAA regulations, and I thought that was  
4 sufficiently general we could include for both.

5 MEMBER WOODALL: Thank you. That helps.

6 CHMN. CHENAL: Okay. Anything further before we  
7 adjourn?

8 (No response.)

9 CHMN. CHENAL: Well then, good. Tomorrow we  
10 will have the final arguments and proceed to  
11 deliberations. So tonight at 6:00 we will have the  
12 hearing and tomorrow at 9:00 a.m. we will conclude -- we  
13 will start for the final day of hearing.

14 Okay. Thanks, everybody.

15 (A recess ensued from 5:17 p.m. to 6:05 p.m.)

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1 (The evening public comment session commenced  
2 with Committee members present and the Applicants.)

3 (TIME NOTED: 6:05 p.m.)  
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5 CHMN. CHENAL: All right. Good evening,  
6 everybody. This is the time set for the public comment  
7 portion of the hearing that was noticed for 6:00 p.m.  
8 this evening.

9 Is there anyone in attendance who wishes to  
10 address the Committee on this project?

11 Ma'am, would you please step to the microphone  
12 and give us your name. And we are interested to hear  
13 what your comments are.

14 MS. FREEMAN: My name is Nancy Freeman. I live  
15 in Green Valley. I represent the Groundwater Awareness  
16 League, which was created to address the water issues  
17 with copper mining in southern Arizona.

18 So several people had called me with concerns  
19 because there is a proposed copper mine in the Patagonia  
20 area, the Harshaw old mining area. And since this will  
21 be a merchant line, they were concerned that the company  
22 might sell and enable that mine to have power.

23 Now, I attended the meeting on Tuesday to get  
24 the logistics, because it was a little confusing that  
25 Nogales Tap was in Tucson and Valencia was in Nogales.

1 I got that all figured out. And what I did was I went  
2 through the report to see where that -- those lines were  
3 going.

4 I will mention that there is another -- there  
5 was another concern, and that was that the power lines  
6 would go through the Santa Rita Experimental Range. But  
7 I did speak with the U of A manager, and he said those  
8 lines had been there forever and you were just  
9 upgrading, which is great. You know, I feel really good  
10 about the project making more reliable power. And also,  
11 you know, going through the Santa Rita Experimental  
12 Range with new power lines and everything, it is going  
13 to be safer.

14 So I printed out maps for you to peruse. So I  
15 got those out of the -- off the internet, off the  
16 application. And I noticed that one of them did, in  
17 fact, go right through Sonoita, which would mean that it  
18 would be -- would have to go by Patagonia. And the  
19 mining, the mining operations, it does pollute the water  
20 and the air. It depletes the water table, because it  
21 uses 50,000 gallons of water per day for their  
22 operations. And if you have ever been out there, there  
23 is some of the most beautiful Arizona sycamores, I am  
24 sure, in the whole state. I mean it is a beautiful  
25 area. And they have already created one forest fire

1 from welding.

2 So I don't know if there is any way that you can  
3 put an earmark on the project that specifies that the  
4 merchants will not degrade the environment, the water  
5 table, or the air pollution.

6 And I will mention that I did get the compliance  
7 of Phelps Dodge to clean the polluted water in our  
8 public water in Green Valley. And it had uranium coming  
9 in, which actually was alpha, gamma, and radon. And  
10 that would be the same in Harshaw. That area is -- has  
11 a lot of uranium in it as a waste product. So that  
12 waste product would go to the environment.

13 So I would suggest and hope that the Hunt  
14 company would avoid the route through Sonoita or any  
15 other to avoid the degradation of that area.

16 Thank you.

17 CHMN. CHENAL: Okay. Ms. Freeman, thank you  
18 very much for your comments, for coming down and  
19 providing us the maps. The nature of public comment is  
20 we can't really get into an exchange with you.

21 MS. FREEMAN: I understand that.

22 CHMN. CHENAL: But we very much appreciate the  
23 time you took to come and address us this evening. And  
24 it gives us things to think about, and then we can  
25 address that with the applicant when we resume our

1 hearing tomorrow. So I appreciate that.

2 Are there any other, any other people want to  
3 comment this evening?

4 I see some people in the audience, if anyone  
5 wants to address the Committee. Okay.

6 Sir, if you would, would you please come up to  
7 the microphone, give us your name, and we are interested  
8 in what you have to say.

9 MR. JUHLIN: Okay. My name is Ben Juhlin. I  
10 actually live on Elephant Head. I am one of the houses  
11 where the power lines exist right now. They run right  
12 over my house.

13 The concerns that I have are the voltages that's  
14 going on through these lines, the poles, they are going  
15 to change in size, things of that nature. I knew when I  
16 bought my land. I am not saying, hey, you know, this is  
17 wrong. The poles were there when I bought my land. I  
18 accepted them when I bought my land. I am not too keen  
19 on having poles or lines, which I understand are going  
20 to be three times as powerful as they are right now, 200  
21 feet away from my house, doesn't exactly excite me.

22 I don't know what to say. You have to come  
23 across my land. They have an easement for it to  
24 maintain and whatnot. I am not exactly sure they have  
25 the easement to put new stuff up. But I am a little

1 sketchy having those size lines over my home. You don't  
2 hear how they snap, crackle, and pop.

3 Any taller poles, when we get struck by  
4 lightning four or five, six times a year out there on  
5 the poles, I don't know if I want a bigger pole out  
6 there attracting more lightning to my land, so to speak.

7 So I am just a little concerned what is going on  
8 out there. I haven't seen any pamphlets; although, I  
9 honestly haven't had time to do research as far as what  
10 is going on other than the little bit that I do know.  
11 But it just kind of sketches me out a little bit having  
12 those big lines out there. So I don't know who else --  
13 what else I can do. I am one little guy. So I am not  
14 happy about it.

15 CHMN. CHENAL: What is your name again, sir?

16 MR. JUHLIN: Ben Juhlin, J-U-H-L-I-N.

17 CHMN. CHENAL: Ben Juhlin. I would suggest you  
18 speak with the gentleman at the far end, Mr. Beck --

19 MR. JUHLIN: All right.

20 CHMN. CHENAL: -- to ask him some questions  
21 about the concerns you have raised. He may be able to  
22 answer some of your questions. We can't really tonight  
23 in the context of public comment.

24 MR. JUHLIN: Sure.

25 CHMN. CHENAL: But I think he can help you with

1 some of the concerns you have raised.

2 MR. JUHLIN: Thank you.

3 CHMN. CHENAL: Would anyone else like to address  
4 the Committee this evening?

5 (No response.)

6 CHMN. CHENAL: All right. Looks like there is  
7 no further comments. So we will adjourn this evening  
8 and we will resume tomorrow morning at 9:00 a.m.

9 Thank you, everybody.

10 (The hearing recessed at 6:14 p.m.)

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1 STATE OF ARIZONA )  
2 COUNTY OF MARICOPA )

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5 taken before me; that the foregoing pages are a full,  
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11 I CERTIFY that I am in no way related to any of  
12 the parties hereto nor am I in any way interested in the  
13 outcome hereof.

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15 I CERTIFY that I have complied with the  
16 ethical obligations set forth in ACJA 7-206(F)(3) and  
17 ACJA 7-206 (J)(1)(g)(1) and (2). Dated at Phoenix,  
18 Arizona, this 12th day of September, 2017.

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COLETTE E. ROSS  
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24 I CERTIFY that Coash & Coash, Inc., has complied  
25 with the ethical obligations set forth in ACJA 7-206  
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