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BEFORE THE ARIZONA POWER PLANT  
AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE ) DOCKET NO.  
APPLICATION OF CHEVELON BUTTE ) L-21080A-19-0171-00182  
RE LLC, IN CONFORMANCE WITH )  
THE REQUIREMENTS OF ARIZONA )  
REVISED STATUTES 40-360, ET ) CASE NO. 182  
SEQ., FOR A CERTIFICATE OF )  
ENVIRONMENTAL COMPATIBILITY )  
AUTHORIZING THE CHEVELON BUTTE )  
WIND GEN-TIE PROJECT, WHICH )  
INCLUDES THE CONSTRUCTION OF A )  
NEW 345 KV TRANSMISSION LINE )  
AND ASSOCIATED INTERCONNECTION )  
FACILITIES ORIGINATING IN )  
COCONINO COUNTY AND )  
INTERCONNECTING WITH THE APS )  
PREACHER CANYON-CHOLLA 345KV )  
LINE IN NAVAJO COUNTY, )  
ARIZONA. )  
\_\_\_\_\_ )

At: Flagstaff, Arizona  
Date: September 17, 2019  
Filed: September 23, 2019

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME II  
(Pages 159 through 288)

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1 BE IT REMEMBERED that the above-entitled and  
2 numbered matter came on regularly to be heard before  
3 the Arizona Power Plant and Transmission Line Siting  
4 Committee at the High Country Conference Center, 307  
5 West Dupont Avenue, Flagstaff, Arizona, commencing at  
6 7:05 a.m. on the 17th of September, 2019.

7

8 BEFORE: THOMAS K. CHENAL, Chairman

9 LAURIE WOODALL, Arizona Corporation Commission  
10 LEONARD DRAGO, Department of Environmental Quality  
11 JOHN RIGGINS, Arizona Department of Water Resources  
12 MARY HAMWAY, Cities and Towns  
13 GIL VILLEGAS, JR., Counties  
14 JAMES PALMER, Agriculture  
15 PATRICIA NOLAND, Public Member  
16 JACK HAENICHEN, Public Member  
17 KARL GENTLES, Public Member

18

19 APPEARANCES:

20 For the Applicant, Chevelon Butte Wind RE, LLC:  
21 DICKINSON WRIGHT, PLLC  
22 Mr. Albert Acken  
23 1850 North Central Avenue, Suite 1400  
24 Phoenix, Arizona 85004

25

1 CHMN. CHENAL: This is the time set for the  
2 continuation of the hearing on the application. We're  
3 meeting in the Drury hotel lobby, but we have  
4 representatives of the applicant at the hearing site  
5 from yesterday to direct people here, and we've waited  
6 after 7:00 to get anybody that might be a straggler  
7 over there to come over here.

8 And we'll begin the tour, there's a bus  
9 waiting outside the front lobby, and we'll make stops.  
10 We'll decide whether we want to get out of the bus or  
11 not at the stops. We'll get out at the stops, but  
12 we'll decide whether or not we want to make the record  
13 in the bus or not for the convenience of the court  
14 reporter.

15 Is there anything else we should discuss  
16 before we begin the tour?

17 MR. ACKEN: Mr. Chairman, it's up to you if  
18 you want an overview now for everybody, or we'll get on  
19 the road, as far as what the tour is going to be.

20 CHMN. CHENAL: Well, let's do a short one.  
21 There's not anyone here in the lobby that we'd be  
22 bothering.

23 MR. UNREIN: Also, Mr. Chairman, we'd like to  
24 just quickly discuss the ranch rules and some quick  
25 safety protocols from our company on our site.

1 CHMN. CHENAL: Sure.

2 MR. UNREIN: As you mentioned, Mr. Chairman,  
3 we're going to depart the hotel lobby here and drive to  
4 Winslow, Arizona, and we're going to turn south on  
5 State Route 87 and 99 and head approximately 27 miles  
6 south on 99 and make a few stops in and around our  
7 site. When we stop the bus and Members of the  
8 Committee get out, if all the Members of the Committee  
9 could please maintain visual contact with an sPower  
10 representative when out on our site, that would be  
11 greatly appreciated. Please don't go wandering off in  
12 this remote area. There are rattlesnakes and other  
13 critters like that, so be mindful of where you're  
14 walking. Please don't walk through thick vegetation.  
15 Just stay near our caravan. Don't go wandering off.

16 And then we'll be driving very slow on the  
17 ranch roads. Out of respect for the landowner family,  
18 we will not be driving off road.

19 And, Mr. Graber, did I miss anything with  
20 ranch rules?

21 MR. GRABER: That's really it. It's your  
22 typical cattle ranch in the west. You know, we're not  
23 going to go through any gates, or we shouldn't; but if  
24 we do, we're closing gates behind us, driving super  
25 slow, like Terrance mentioned, yielding to cattle, that

1 kind of stuff, watching out for trip hazards. The  
2 roads can be not graded all that well, so just watching  
3 out for trip hazards is one of the bigger things.

4 MEMBER HAENICHEN: Am I correct, when I  
5 looked at the drawings in the application, there will  
6 be no windmills on top of the butte itself?

7 MR. UNREIN: Yes, sir, that is correct.

8 CHMN. CHENAL: How many stops will there be?

9 MR. UNREIN: Well, we're planning three  
10 stops, Mr. Chairman. They're both going to be very  
11 close to State Route 99. We don't want to get this  
12 tour van too far off of the paved highway, so we're  
13 going to do our best. And we have some binoculars to  
14 share with the Committee Members to try to get the best  
15 vantage point we can of the site.

16 MR. ACKEN: I believe you said 87 earlier.  
17 It's 99.

18 MR. UNREIN: So there's a short segment of 87  
19 south of Winslow, and then we connect onto 99.

20 CHMN. CHENAL: Any questions?

21 MEMBER HAENICHEN: One. Will we see that  
22 basalt mine?

23 MR. GRABER: Oh, yes, there's -- The mine is  
24 just on the southern side of the butte, right; we have  
25 no chance of seeing that. Honestly, we need permission

1 to be up on the butte from the landowner, and it's  
2 quite a haul to get up there. We've seen it from the  
3 helicopter, but really that's the only time we've seen  
4 it.

5 MEMBER HAENICHEN: Okay.

6 CHMN. CHENAL: Anything else?

7 (No response.)

8 CHMN. CHENAL: All right, let's adjourn.

9 (The hearing recessed for the route tour at  
10 7:09 a.m.)

11

12 (TIME NOTED: 7:14 a.m.)

13 (All Committee Members present at the  
14 hearing, except Member Woodall and Member Noland, and  
15 applicant proceeded to the bus to begin the tour.)

16

17 STOP 1

18 (TIME NOTED: 8:57 a.m.)

19 CHMN. CHENAL: We're at our first stop on the  
20 tour. Mr. Acken, if you want to maybe turn it over to  
21 whoever you want to have speak about the this first  
22 observation point, or if you want to say a word.

23 MR. ACKEN: Thank you, Mr. Chairman.

24 Actually, Mr. Nemeth is going to describe some of the  
25 features that we can see from Point of Interest 1 here,

1 this is the project boundary. He also has a copy of  
2 the route tour, which shows the point again; for the  
3 record, that is CVN 11.

4 Mr. Nemeth.

5 MR. NEMETH: Thank you. So welcome to the  
6 Chevelon Butte Wind Farm, or I should say the  
7 proposed area for the Wind Farm. We are on Route 99 as  
8 you're coming in from Winslow. As I think we  
9 previously had mentioned, by road -- coming in from 87  
10 to 99, it's approximately 27 miles by road getting into  
11 the site.

12 Just some general information about where  
13 we're at. Right now directly due east -- I'm sorry, I  
14 lied -- west, due west of us about 1 mile is where the  
15 Project substation would be. So right now from this  
16 point, POI 1, we are north of where the Gen-Tie is. So  
17 if you can imagine, we're a little bit north of where  
18 the Gen-Tie Line is, it would go 1 mile out, it would  
19 hit Substation 1, and then approximately 7 miles to the  
20 northwest of us would be Substation 2.

21 And then if you're looking to the east into  
22 the sun, going in a southeastern direction, that would  
23 take you towards the interconnection and where the  
24 existing APS power line is. Unfortunately, you can't  
25 see all the way that way, even with the binoculars,

1 just due to the topography of the land, but just to  
2 give you a little direction of it.

3 MEMBER HAENICHEN: Question. So the Wind  
4 Farm is going to be in this area?

5 MR. NEMETH: So if you're facing the south,  
6 the Wind Farm will be to your east and to the north.  
7 And then it will be, if you see to the west -- I'm  
8 sorry. To the east, you see the met tower right there  
9 off in the distance where we have a meteorological  
10 tower and a bat hat, it would be to the south of that  
11 met tower.

12 MEMBER HAENICHEN: Okay. But then all the  
13 lines, though, coming from each individual wind  
14 generator are going to come this way, you're going to  
15 have to go under the road here 50 times?

16 MR. NEMETH: So what we would do is bring  
17 them to a point in which we would only have a couple  
18 crossings. So as I mentioned previously, this Project  
19 will have approximately 16 circuits going into  
20 Substation 1. So depending on how everything breaks  
21 out, there would only be maybe four to five circuits  
22 that would be crossing Highway 99 that would be bored  
23 underneath of the road and then taken to the  
24 substation.

25 MEMBER HAENICHEN: So I misunderstood

1 yesterday. Each windmill has a wire coming out of it,  
2 but that wire doesn't go all the way to the substation,  
3 they merge with other ones?

4 MR. NEMETH: That's correct. So what we do  
5 is typically there could be some pigtails that come off  
6 of a circuit to an individual turbine, but for the most  
7 part each one of those turbines connects into a single  
8 circuit, and then that circuit will go into the Project  
9 substation.

10 MEMBER HAENICHEN: Thank you.

11 MEMBER GENTLES: Where is the homeowners  
12 development of the people who spoke last night?

13 MR. NEMETH: So Happy Jack would be off in  
14 that direction, and I'm pointing to the southwest of  
15 where we're standing at right now. So I think from  
16 this point, and Allen could probably correct me if I'm  
17 wrong, is it 20 miles? I was thinking it was 18.

18 MR. ACKEN: And Mr. Nemeth, maybe you could  
19 point out from where we came in to go to that  
20 development. Do you stay on 87, versus coming to 99?  
21 We talked about that.

22 MR. NEMETH: That's correct. So just  
23 shortly after you come out of Winslow, where we took  
24 the left to turn onto 99, if you were to maintain on  
25 that road and go out there approximately 25, 30 miles,

1 you would get to that subdivision that's located out  
2 there.

3 MR. ACKEN: Mr. Nemeth, just for the record,  
4 if you could point out Chevelon Butte.

5 MR. NEMETH: Sorry, it's a little windy out  
6 here, so hearing is hard.

7 MEMBER HAENICHEN: Don't be sorry for that.

8 MR. NEMETH: I said it for a reason.

9 So a couple features to point out is  
10 obviously right here, from where we're standing, to the  
11 southwest is Chevelon Butte. And if you look up on it,  
12 you can see that there's actually a cell tower and  
13 there's some other manmade structures that are already  
14 on top of that geographic area.

15 And then directly to the south here you can  
16 see a white sign pretty much directly where we're  
17 standing. That is actually our public notice that  
18 we've pointed out inside our -- And I apologize, I  
19 don't remember which exhibit it is that references  
20 that, but we have the notification there.

21 And then just prior to coming here, about a  
22 mile back on Service Road 504 and moving down that  
23 road, there was another notification sign there.

24 MEMBER HAMWAY: I just need a visual. How  
25 far do you think Chevelon Butte is from here?

1 MR. NEMETH: So from here it's probably  
2 3 miles.

3 MEMBER HAMWAY: Okay, I'm just getting a  
4 sense of how far you could see. 8 to 10 miles from  
5 yesterday, that's what I was thinking.

6 MR. NEMETH: Yeah. So, I mean, it's very --  
7 I think it's very deceiving out here. Because it looks  
8 very flat as you're driving; but once you get out here,  
9 the land is a lot of just rolling terrain. And so your  
10 ability to see distances out here is kind of deceiving  
11 on how far you could actually see. But, you know, in  
12 this case, looking to the southwest, it's kind of a  
13 slope down, so --

14 CHMN. CHENAL: Make sure you're talking to  
15 the court reporter.

16 MR. NEMETH: How about I stand next to you.

17 So, I mean, obviously we have a full view of  
18 the Chevelon Butte from this direction.

19 CHMN. CHENAL: And as the crow flies from  
20 here, where is that Happy Jack community? Is it on  
21 the other side of Chevelon Butte from where we're  
22 standing?

23 MR. NEMETH: It is just -- So we're looking  
24 in the southwest direction. And so if you're looking  
25 due south, it would be at almost your 3 o'clock,

1 between like 2:30, 3 o'clock, going straight out there.  
2 So from here I think it's approximately 18 to 20 miles  
3 to the Happy Jack.

4 CHMN. CHENAL: Okay. Any additional  
5 questions?

6 MEMBER HAENICHEN: I just had one question.  
7 You may not know the answer to this. What's the reason  
8 for this road being here? What is the typical traffic  
9 on it?

10 MR. NEMETH: I think most of it's just to be  
11 able to access the ranch. And then there is the  
12 national forest to the south, and some people would use  
13 this to access that site.

14 MEMBER HAENICHEN: Thank you.

15 MR. NEMETH: But as you've seen, we've seen  
16 three cars since we've been out here. That's heavy  
17 traffic for today.

18 MEMBER HAENICHEN: That's why I asked the  
19 question.

20 MEMBER VILLEGAS: So is this Navajo County or  
21 still Coconino County?

22 MR. NEMETH: I've got to look at a map to  
23 confirm. So we are still in -- We're in Coconino  
24 County right now, so Navajo County is approximately  
25 2 miles to the east of us.

1           So just some information. We actually have  
2 four meteorological towers, much like the one that's to  
3 the east of us, that are scattered throughout this  
4 Project that are measuring wind. And interestingly  
5 enough, even with the terrain you're not able to see  
6 where all of them are, either due to the distance  
7 and/or the terrain, from where we're standing at right  
8 now.

9           MEMBER HAMWAY: So those were put up by your  
10 company?

11          MR. NEMETH: Yes, ma'am.

12          MEMBER RIGGINS: Mr. Nemeth, how far, as the  
13 crow flies, are the existing APS lines from here?

14          MR. NEMETH: Probably about 7 miles to go  
15 straight out to the east of us. So the existing APS  
16 line that comes from the Cholla Plant, I believe, they  
17 cut down at an angle going from the northeast and go  
18 down in a southwest direction, so they bisect the  
19 Project on the eastern side at an angle.

20          CHMN. CHENAL: Any further questions?

21          MEMBER HAMWAY: No.

22          CHMN. CHENAL: We can go off the record.

23          (TIME NOTED: 9:12 a.m.)

24          (All Committee Members present and applicant  
25 proceeded to Stop 2.)

1 STOP 2

2 (TIME NOTED: 9:18 a.m.)

3 CHMN. CHENAL: We'll go on the record at  
4 Point Number 2, POI 2.

5 Mr. Acken.

6 MR. ACKEN: Thank you, Mr. Chairman.

7 Mr. Nemeth, Point Of Interest Number 2,  
8 please describe to the Committee what they can see from  
9 this location.

10 MR. NEMETH: I will. First, I just want to  
11 say, please be careful walking. There's a lot of  
12 rocks, I don't want you to trip on them, as well as  
13 this is an active cattle ranch and we're standing in  
14 that, so please watch your step.

15 So we are at POI 2. If you recall from the  
16 maps, this is actually the location of where the  
17 Project Substation 1 would be located, so right now  
18 we're in pretty much the middle of the Project area.  
19 So in looking at -- Standing here at this, you can see  
20 Chevelon Butte to the southwest of us. The Gen-Tie  
21 Line would be, from where we're standing at now, would  
22 be heading in a north -- I said southwest. I'm sorry.  
23 I should say northwest of us. The Gen-Tie Line will be  
24 going to the north of the Chevelon Butte. And then as  
25 the Chevelon Butte slopes off to the north, we would be

1 coming right over that little aspect of that rise at  
2 the end, continuing in a northwestern direction to  
3 Substation 2.

4 CHMN. CHENAL: Substation 2 is approximately  
5 how far from here?

6 MR. NEMETH: It's approximately 7 miles from  
7 here going in a northwest direction.

8 So then if you guys turn towards the east and  
9 south, the Gen-Tie Line will then continue in a  
10 southeastern direction from this point, to which it  
11 would then go to the interconnection where it ties into  
12 the APS 345 kV line.

13 MEMBER HAENICHEN: At any point in this tour  
14 will we see the APS line?

15 MR. NEMETH: We're going to -- The POI 3,  
16 which is the closest we could get on the road to that  
17 site, still will be a handful of miles from that site.  
18 So we may be able to see it at that POI and I'll be  
19 able to at least point you in the direction to where it  
20 is, but I just don't recall at this point on whether or  
21 not we would still have full visibility of the line.

22 MEMBER HAENICHEN: Okay, thank you.

23 MR. NEMETH: Welcome.

24 So again, looking at Chevelon Butte, you can  
25 see the manmade structure up on top of it now. And I

1 guess I would like to point out that this is part of  
2 the active Chevelon Butte Ranch. If you were to  
3 continue on the basically private road that we were  
4 just on heading towards the Chevelon Ranch, you would  
5 start getting into some fence structures that they have  
6 for their cattle operations, as well as some different  
7 water wells that they've now installed across the  
8 property. Unfortunately, we're just unable to see them  
9 from this point.

10 CHMN. CHENAL: So can you give us an idea of  
11 where the actual turbines are going to be in relation  
12 to where we are here at Substation 1?

13 MR. NEMETH: Sure. So from where we're  
14 standing at on Substation 1, we are to actually have  
15 turbines 360 degrees around us, with fewer turbines  
16 heading to the south, and the bulk of the turbines  
17 going to the northwest and then to the southeast of us  
18 is where the turbines are. So the Project boundary to  
19 the north of us is approximately a mile and a half from  
20 where we're standing right now. Then as you continue  
21 to go north, the Project boundary goes farther north,  
22 where at this point of the Project area it's the most  
23 narrow part of the entire Project boundary.

24 MEMBER HAENICHEN: Question. When you're  
25 laying out a wind turbine farm like this, how close can

1 you put turbines to each other and start losing  
2 collection efficiency?

3 MR. NEMETH: So in doing it, you take a  
4 number of things into consideration: The direction of  
5 the wind, the strength of the wind, and the terrain.  
6 So all those play a heavy factor in how you site the  
7 turbines. But in the way we did this now, most of our  
8 turbines are almost in a row that go from a southeast  
9 to a northwest direction, and we've maintained  
10 approximately a mile between them at that point. Now,  
11 along that same string, we try to maintain between  
12 three to five rotor diameters between each turbine.

13 MEMBER HAENICHEN: Can these turbines turn  
14 like this to catch the wind?

15 MR. NEMETH: So the question is: Will the  
16 top of it move in 360 degrees?

17 MEMBER HAENICHEN: Yeah.

18 MR. NEMETH: They will. So there's a weather  
19 vane on top of the turbine, on top of the nacelle, that  
20 gauges the direction of the wind, and it will turn the  
21 nacelle to face into the oncoming wind direction.

22 MEMBER HAENICHEN: Thank you.

23 MEMBER GENTLES: Interesting.

24 CHMN. CHENAL: Any further questions?

25 (No response.)

1 CHMN. CHENAL: All right. Let's move to the  
2 next POI.

3 (TIME NOTED: 9:25 a.m.)

4 (All Committee Members present and applicant  
5 proceeded to Stop 3.)

6

7 STOP 3

8 (TIME NOTED: 9:46 a.m.)

9 CHMN. CHENAL: We're at POI 3-ish, not quite  
10 as far, due to the road conditions, they're pretty bad  
11 for the vehicle we're in, so we're just a little short  
12 of it.

13 Mr. Acken.

14 MR. ACKEN: Thank you, Mr. Chairman. Yes, we  
15 are. We are about a mile north of POI 3.

16 And, Mr. Nemeth, if you would describe for  
17 the Committee what they can see from this location.

18 MR. NEMETH: Sure. So from where we're  
19 standing right now, if we're looking just to the  
20 southeast of us about a quarter of a mile away, we have  
21 one of our meteorological towers for the Project. If  
22 you're looking at it through some of the binoculars,  
23 you'll be able to see at certain degrees coming off of  
24 that tower we have anemometers that are measuring the  
25 wind speeds, as well as within the industry we call it

1 a bat hat, a bat hat that's up there doing acoustical  
2 bat monitors.

3           So if you do have a set of binoculars, also  
4 if you're looking again in that southeastern direction,  
5 probably about like 10 to 15 degrees off of the met  
6 tower, you will be able to see two or three structures  
7 for the APS existing 345 kV line. You won't be able to  
8 see the line itself, but you'll be able to see a couple  
9 of the structures. And from where we're standing at  
10 here, that's roughly 4, 4 and a half miles away from  
11 those lines.

12           CHMN. CHENAL: From where we are? 4 and a  
13 half miles from here?

14           MR. NEMETH: Yes, approximately.

15           So as far as the Gen-Tie purpose goes, that  
16 line will be directly south of where we're at, and  
17 again, it would be coming from a northwestern direction  
18 heading southeast into the Project. So the line would  
19 be directly south of us from where we're standing, I  
20 would estimate it at about a half a mile due south of  
21 where we are at is where we would see it.

22           So from here, if we look to the west, which  
23 would be where the Project substation is, at this  
24 location we're unable to see where that spot is. But  
25 as you can see, there is that slight incline to the

1 terrain; the substation would be there to the west of  
2 it. Then that would be Project -- or, I should say, to  
3 clarify, that would be Substation 1. Then again,  
4 Substation 2, which would be up to the northwest of  
5 where we're standing at now, again from this distance  
6 you're unable to see where that location would be from.

7 MEMBER GENTLES: Could you point us to the  
8 point -- Where would the tie-in to the APS line be?  
9 Is it this direction here?

10 MR. NEMETH: Sure. So kind of taking your  
11 reference off of the sun here being due east, if you do  
12 pretty much a 45-degree angle between north -- I mean,  
13 south and east, that would be the direction of the  
14 interconnection substation and where we would connect  
15 to the 345 kV line.

16 CHMN. CHENAL: And again, that's  
17 approximately 4 and a half miles?

18 MR. NEMETH: Yes.

19 CHMN. CHENAL: And then the east and the west  
20 options, where are those located in relation to where  
21 we are here?

22 MR. NEMETH: So those would -- The west and  
23 the east interconnection locations, those two would be  
24 approximately 4 and a half miles from where we stand,  
25 pointing in that southeasterly direction.

1 CHMN. CHENAL: And then the Chevelon Canyon  
2 is located there?

3 MR. NEMETH: That is correct. So the  
4 Chevelon Canyon is directly to the east of us, and then  
5 of course it goes down in a southern direction.

6 MEMBER HAENICHEN: Question. Are we looking  
7 at the trees that were mentioned in the application?  
8 They talked about a whole bunch of trees, pinyon or  
9 something.

10 MR. NEMETH: The junipers?

11 MEMBER HAENICHEN: Junipers, yeah.

12 MR. NEMETH: Without -- I'm not a hundred  
13 percent clear on what part of the application to  
14 confirm that. But on the eastern part of the Project  
15 area there are a lot more junipers located than on the  
16 western side of the Project area.

17 MR. ACKEN: And, Member Haenichen, we will  
18 have our environmental panel address that question.

19 MEMBER HAENICHEN: Okay, good. Yeah.

20 CHMN. CHENAL: And then are we in an area  
21 where there will be any of the turbines?

22 MR. NEMETH: Yes, we will be.

23 CHMN. CHENAL: I mean right now, this area.

24 MR. NEMETH: Yes. So, I mean, I do not have  
25 the turbine locations with me at this point, but we do

1 have turbines planned in this section where we're  
2 standing.

3 CHMN. CHENAL: I think when we get back on  
4 the record I think it will be helpful to get the maps  
5 back up and we can point to where the turbines are  
6 going to be located and where the stops are on this  
7 tour to kind of help relocate, it will all come  
8 together.

9 MR. NEMETH: We could go back to the map that  
10 showed where the turbines and the Gen-Tie were, and I  
11 could point out where we stopped so everybody can see  
12 the area behind it with the infrastructure, that  
13 general location.

14 CHMN. CHENAL: I think that's one of the  
15 benefits of the tours, is you see it from the ground,  
16 then you've got to connect it to the maps.

17 MEMBER GENTLES: Could you just remind us how  
18 many turbines there will be.

19 MR. NEMETH: We are permitting up to 164  
20 turbine locations.

21 MEMBER GENTLES: And then from the viewpoint  
22 of the homeowners, the 200 homeowners, how many of  
23 those would they be able to see?

24 MR. NEMETH: I do not know off the top of my  
25 head, but I believe Allen is going to be speaking to

1 that today when they talk about some of the visual on  
2 what is actually visible from like Highway 87 and that  
3 general area.

4 MEMBER RIGGINS: Just for scale, how tall are  
5 these towers here?

6 MR. NEMETH: Thank you. I was going to bring  
7 that up, and I forgot. So the met tower we're looking  
8 at, that's a 60-meter tower, so it's roughly  
9 180-odd-feet in height. So one of the things we did  
10 here is we chose to go with the met tower that would be  
11 under 200 feet, because anything greater than 200 feet  
12 requires to be lit by the FAA, and we're trying to be  
13 very conscientious of the light out here. We wanted to  
14 not add any additional lights.

15 MEMBER HAENICHEN: What about the wind  
16 turbines themselves, what's the maximum height from  
17 ground level?

18 MR. NEMETH: So we are permitting a turbine  
19 with a maximum height of roughly 750 feet at the tip.

20 MEMBER GENTLES: And how tall is that?

21 MEMBER HAMWAY: 180.

22 MR. NEMETH: That's roughly 180, 190 feet at  
23 the tip.

24 MEMBER GENTLES: Wow. So it's almost four  
25 times.

1           MEMBER PALMER: When you say at the tip, is  
2 that the tip of the blade when it's at its apex?

3           MR. NEMETH: That is correct. So the tip  
4 height refers to when the blade tip itself is at its  
5 apex.

6           MEMBER HAMWAY: Are they all that height or  
7 does it vary on the terrain?

8           MR. NEMETH: That's the height of the  
9 turbine. And one of the things that we do is we file  
10 with the FAA and we provide a ground elevation of what  
11 that site is located at, and then so they have the  
12 aboveground elevation, which would be the tip of that.  
13 So what they do is they provide to anyone, for flying  
14 purposes, this is what the ground elevation is, and  
15 this would be anything above the ground elevation. So  
16 this is the maximum height turbine that we are looking  
17 at using.

18           I do want to say, the industry has moved to  
19 much taller turbines. One thing that we have found is  
20 like the shear factor on certain sites, that the higher  
21 you go, the greater the wind speeds. So obviously we  
22 want to make these as efficient as possible and make  
23 the most use of the wind. So what turbine  
24 manufacturers have done, through research, is we've  
25 started building taller turbines that have been able to

1 make more sites much more productive sites.

2 MEMBER GENTLES: By comparison, what's the  
3 height of the ones out in California, Palm Desert?

4 MR. NEMETH: I couldn't guess for sure, so  
5 this is just a guess. Assuming that they've been the  
6 new monopoles, and not the old like lattice tower ones,  
7 those are anywhere -- probably, if it was built 10  
8 years ago, it was probably 390 to 425 feet tall. But  
9 one of the things there in Palm Springs is they don't  
10 have a large shear factor, even at 80 meters they've  
11 got great wind speeds, so they might not necessarily go  
12 higher.

13 I have projects in South Dakota that's under  
14 construction in which we're building nearly 600 feet  
15 tall with those towers. And then I've got a Project in  
16 Ohio, you know, we're permitting towers that are  
17 roughly 650 feet tall at the tip.

18 MEMBER HAENICHEN: How do you determine --  
19 What methodology do you use to determine the ground  
20 elevation and how precise is that?

21 MR. NEMETH: So in two ways. One, we will  
22 look at the USGS maps to get a general idea of what  
23 those elevations are. Then, for the engineering of the  
24 Project, what we would do is we have a survey company  
25 come out and they will survey each of the turbine

1 locations to get the exact elevation.

2 MEMBER HAENICHEN: What's the reference  
3 point? Compared to what, in other words?

4 MR. NEMETH: I'm not understanding your  
5 question, sir.

6 MEMBER HAENICHEN: Well, the elevation --  
7 You said they get the exact elevation. Compared to  
8 what reference point, I mean, since the ground is doing  
9 this?

10 MR. NEMETH: So what they would do is at the  
11 point of where the turbine is going to go, they would  
12 get it. So if it's at 5,281 feet that a turbine is  
13 located, that's what it is. And then along the access  
14 road routes they would also be taking points for  
15 elevation that would go into the design of the access  
16 points.

17 MEMBER HAENICHEN: My question was: What is  
18 the -- how is the 5,281 determined?

19 MR. NEMETH: By whatever technique the  
20 surveyors use to determine height elevation.

21 MEMBER HAENICHEN: You don't know that? I  
22 don't either.

23 MR. NEMETH: They've got those great tripods  
24 and they start looking at something. That's not my  
25 background, sir.

1 CHMN. CHENAL: Any further questions?

2 MEMBER PALMER: What is the length of the  
3 blades on these turbines?

4 MR. NEMETH: So with those -- Let's assume a  
5 V150 might be a turbine that we're considering for this  
6 site. So the 150 in there references that the blade  
7 diameter would be 150 meters. So to put that in  
8 perspective, that means it's roughly 450 feet in  
9 diameter. So your blades could be roughly 200,  
10 225 feet in length.

11 MEMBER HAENICHEN: That's a big windmill.

12 MR. NEMETH: Yeah, definitely where the  
13 industry is going. But I do like to point out, I'm  
14 building projects at roughly the same height as the  
15 turbines out here, and I'm building them within 1500  
16 feet of homes, compared to the closest homes being 9  
17 miles away here. So to put that in a little bit of  
18 perspective, I've been doing this for 10 years, and  
19 I've never developed a project that has been as remote  
20 and fewer people.

21 MEMBER HAENICHEN: As this one?

22 MR. NEMETH: As this one.

23 I did want to mention, I don't know if you  
24 noticed as we were driving out here to the site,  
25 shortly after we turned on 99 on the left-hand side of

1 the road, as we were going over the bridge and there  
2 was the small river there, that is something that like  
3 ourselves and SWCA and other partners with sPower had  
4 helped sponsor a site cleanup there earlier this year.  
5 So we have joined the Chamber of Commerce there in  
6 Winslow and are definitely trying to take steps to  
7 become part of the community and contribute to areas  
8 that are important to the community. And that one I  
9 think Allen can probably speak to better than I can. A  
10 lot of people go out there and use that for  
11 recreational use along the river.

12 MEMBER HAMWAY: What river was that?

13 MR. NEMETH: Clear Creek.

14 If you recall, like shortly after we turned  
15 onto Forest Service Road 504, there was a kiosk on the  
16 right-hand side in which it was basically a sign-in  
17 sheet for any of the hunters that come out here. At  
18 that point we were still up there on the Hopi land, the  
19 Aja Ranch.

20 And then if we would have continued on the  
21 road there at POI 2, there would have been another  
22 sign-in sheet. The Chevelon Butte Ranch requires  
23 anyone who comes onto their land to go hunting, they  
24 must sign in at that spot.

25 CHMN. CHENAL: All right. We'll have other

1 questions, but we can reserve those for when we get  
2 back. We'll go off the record now and head back to  
3 Flagstaff.

4 (TIME NOTED: 9:59 a.m.)

5 (The route tour attendees proceeded to the  
6 Drury Inn, arriving at 11:56 a.m.)

7 (The hearing resumed at 1:41 p.m.)

8 CHMN. CHENAL: This is the time set for the  
9 continuation of the hearing on the application for the  
10 Chevelon Butte Gen-Tie Line. We had a very  
11 interesting, I thought a very excellent tour this  
12 morning. It was very informative. I know there will  
13 be some questions generated from that.

14 Before we turn it over to Mr. Acken, does the  
15 Committee have any questions or comments before we  
16 begin? Not about the tour, just about procedural  
17 matters or anything.

18 MEMBER HAENICHEN: Oh, you just want to talk  
19 about procedural matters?

20 CHMN. CHENAL: Yes.

21 MEMBER HAENICHEN: Okay, I pass.

22 CHMN. CHENAL: Okay, Mr. Acken.

23 MR. ACKEN: Thank you, Mr. Chairman. A  
24 couple procedural items that I wanted to cover with  
25 you.

1           We have handed out two additional exhibits.  
2 One is a map. We discussed yesterday providing more  
3 details regarding the requested corridor and footprint  
4 for the substations. And so you will see a map that  
5 has, I believe it's six pages. We are going to mark  
6 this as CVN 12. And, Mr. Graber, when he gets on the  
7 stand, will provide testimony regarding that map.

8           The next exhibit that's in front of you is --  
9 will be marked as CVN 13, and this is the public  
10 comment summary that Mr. Gentles requested. And so,  
11 again, Mr. Graber will provide testimony regarding  
12 Exhibit CVN 13.

13           Before we move to the environmental panel,  
14 however, we wanted Mr. Nemeth to go back and provide  
15 some additional context requested by the Committee  
16 during the tour today using the map that shows the  
17 preliminary layout for the wind turbines, and that can  
18 be found on CVN 2, Slide 6. So once we have CVN 2,  
19 Slide 6 on the screen -- There we go.

20           I'm going to turn it over to Mr. Nemeth. And  
21 if you would, using this map, describe for the  
22 Committee the various points of interest that we  
23 stopped at this morning on the tour.

24           MR. NEMETH: Of course. So this morning when  
25 we drove into the site, we came in on Route 99, which

1 is basically along this line here that I'm using with  
2 the pointer that kind of bisects the middle of the  
3 Project.

4           Again, we had our POI 1 where we stopped at,  
5 in which we were pretty much just due west -- I'm  
6 sorry -- due east of where the proposed substation is  
7 located, in which from that point we were able to see  
8 the Chevelon Butte feature itself, as well as we were  
9 looking up into the northwest, the main Project area,  
10 as well as looking into the southeast trying to see  
11 where the interconnect would be, as well as the  
12 existing APS line, which from POI 1 we were not able to  
13 see.

14           After that, we journeyed along 99 and then  
15 took a private road up to POI 2, which is where the  
16 proposed Substation 1 would be located. And again,  
17 there, at that point, we were about a mile and a half  
18 due east of Chevelon Butte. And we were able to look  
19 to the northwest, towards where the Substation 2 would  
20 be, as well as where a majority of the turbines for the  
21 Project would be located.

22           Again, due to the terrain, we were unable to  
23 see, you know, great distances on where that would be  
24 located, but it did provide a general outlook of where  
25 the Project was located in relation to our location and

1 in relation to the Chevelon Butte itself.

2 After that, we traveled to -- almost to  
3 POI 3. What we did is traveled back northeast on  
4 Route 99 to Forest Service Road 504 --

5 CHMN. CHENAL: Mr. Nemeth, can you show it  
6 with the pointer?

7 MR. NEMETH: Sure.

8 CHMN. CHENAL: That's helpful.

9 MR. NEMETH: Yes, I apologize for that.

10 So we traveled back north up 99 and then came  
11 down approximately through this road right here, which  
12 is hard to see, but that would be the Forest Service  
13 Road in which we traveled south until we just crossed  
14 into the Project boundary, roughly where the sign for  
15 the notice was located, as well as when we were out  
16 there, if you recall, there's a met tower in that  
17 general area about a quarter mile from where we were  
18 standing.

19 So just to give it as a point of reference,  
20 basically where we were standing is that there is a  
21 proposed turbine basically in that general area. So,  
22 again, from that location, you could see where we were  
23 in relation to Chevelon Butte, which was roughly 3 and  
24 a half miles at that point, and we were roughly 4 and a  
25 half miles to the interconnect.

1           With binoculars at that POI 3, we were able  
2 to look, and you could barely make out two or three  
3 structures for the existing APS line; that would have  
4 been on the eastern side of the canyon. So probably  
5 what we were seeing is roughly where my pointer is,  
6 which would be in the southeast corner of the Project  
7 just slightly outside of the Project boundary.

8           CHMN. CHENAL: Thank you. Could you show  
9 where 99 kind of is on the map? You showed us the  
10 southern portion of it, where we were at the points of  
11 interest. But can you take 99 and just follow it up  
12 north?

13           MR. NEMETH: Sure. So 99 cuts through the  
14 Project site through an angle. So it's roughly  
15 coming -- if I start here in the kind of central part  
16 of the Project on the southern boundary, it cuts at an  
17 angle, following this line, going in a northeast  
18 direction, and then it continues to follow up  
19 into Navajo County. And, obviously, this isn't exact,  
20 but this is a rough estimate of the direction in which  
21 the Route 99 is going.

22           Then a number of miles to the north of the  
23 Project area and off of this map, it moves to and  
24 starts heading to the northwest, which cuts us back  
25 towards the town of Winslow and Route 87.

1 CHMN. CHENAL: Thank you. For me, that's  
2 very helpful to see.

3 Mr. Gentles.

4 MEMBER GENTLES: Thank you, Mr. Chairman.

5 Mr. Nemeth, could you tell me -- just point  
6 out where the housing development in question is.

7 MR. NEMETH: The housing development is not  
8 on this map, to my knowledge.

9 MEMBER GENTLES: So where would it be in --  
10 There you go. Thank you.

11 MR. NEMETH: For the record, I am pointing  
12 off screen with the pointer to the west of the Project  
13 area. It is -- So as we've mentioned, I think our  
14 closest turbine is roughly 8 miles from the closest  
15 residence in that area. So assuming one of the  
16 turbines here, it would be another 8 miles to the west  
17 and a little south of those turbines.

18 CHMN. CHENAL: And then how far from our  
19 point of interest, POI 3, where we stopped -- I know we  
20 were a little west of it, but how far from there to the  
21 existing transmission, the Cholla transmission line?

22 MR. NEMETH: From POI 3, where we had stopped  
23 at that approximate location, we were approximately 4  
24 and a half miles to the existing APS line.

25 CHMN. CHENAL: So about roughly half the

1 distance from where the homeowners that spoke last  
2 night would be from the nearest turbine?

3 MR. NEMETH: That is correct.

4 CHMN. CHENAL: Mr. Gentles.

5 MEMBER GENTLES: Can you just clarify, what's  
6 the name of the development that the folks that  
7 testified yesterday were talking about?

8 MEMBER NOLAND: Happy Jack.

9 MR. NEMETH: Typically, I've heard it  
10 referred to as Happy Jack.

11 MEMBER GENTLES: Okay, thank you.

12 MR. ACKEN: Mr. Chairman, Mr. Gentles, it  
13 was -- the community is Mogollon Ranch. And in  
14 Mr. Graber's presentation on visual resources, he has a  
15 map that shows the closest house in Coconino County,  
16 which is in that area. So that will be a better map to  
17 depict the location of the residences.

18 CHMN. CHENAL: Member Haenichen.

19 MEMBER HAENICHEN: Mr. Chairman, would it be  
20 appropriate -- I have a question regarding the  
21 operation of the Wind Farm itself. Do I ask that  
22 question at this time, since we're going to exit this  
23 topic?

24 CHMN. CHENAL: I believe that would be  
25 appropriate before we get into the environmental

1 aspects of it. Since we're still on the facilities  
2 themselves, Mr. Nemeth would be the best person to ask.

3 MEMBER HAENICHEN: Mr. Nemeth, I think, would  
4 be the correct person.

5 This question will be calling upon your past  
6 experience with other projects that are operational  
7 now. On the tour I asked a couple of questions about  
8 spacing of the towers and about the ability of the  
9 windmill itself to turn on the top. So -- and that was  
10 an affirmative answer.

11 Here is my question: If the wind at any  
12 particular moment should be blowing right on that angle  
13 line where all those turbines are sort of in line, in  
14 layers, I mean --

15 CHMN. CHENAL: Member Haenichen, I'm going to  
16 use my fancy marker in green. You're talking about  
17 like a linear line like that?

18 MEMBER HAENICHEN: That's what I'm talking  
19 about.

20 Is it -- From your experience with other  
21 wind farms, if we pick any one of those lines of  
22 turbines there, wouldn't the early turbines kind of rob  
23 the wind from the other ones going down? Have you  
24 actually measured that, and is it going to affect --  
25 does that happen or does it not happen?

1           MR. NEMETH: So, sir, if I understand you  
2 correctly, you're asking, you know, what are the  
3 impacts of one set of turbines on another set of  
4 turbines and if there's wake involved.

5           MEMBER HAENICHEN: Yes.

6           MR. NEMETH: So the answer is: Yes, we do  
7 model that. We do have subject matter experts within  
8 the company that they do nothing but model wind speeds  
9 and the impacts of the wind and the other turbines on  
10 each other, as well as we send the turbine locations  
11 and the site's specific information to the different  
12 manufacturers to also have them evaluate each of the  
13 turbine locations. So we take wake very seriously.

14           Ideally, what we want to do is to design a  
15 Project that creates the least amount of wake from one  
16 turbine to the next. I always equate it to thinking  
17 about how a boat goes through the water and it creates  
18 waves, and it takes a certain amount of distance and  
19 time for those waves to get smaller.

20           And it's a very similar concept in this, is  
21 that we want to space them far enough apart that when  
22 the wind comes through and there is a little bit of  
23 turbulence after it's flown through the turbine, that  
24 we want that turbulence to decrease and become more of  
25 a straight line wind by the time it hits the next

1 turbine.

2 MEMBER HAENICHEN: Okay. But from your  
3 experience on other projects, if you could imagine one  
4 that had similar spacing to what this is going to be,  
5 is there any effect at all as you get down to those  
6 ones on the lower right, or is it just a minimal  
7 amount?

8 MR. NEMETH: So there is an impact on it.  
9 And what we've done is we've designed this Project,  
10 because the predominant wind direction is from the  
11 southwest to the northeast -- So if you're looking at  
12 the pointer, I'm starting here in the southwest of the  
13 Project moving through the northeast. So that is the  
14 prominent wind direction for this Project.

15 So what we've done is we've designed a  
16 Project that is going to be most efficient during the  
17 most prominent wind speeds. That doesn't say that the  
18 wind could not come from the northeast or northwest  
19 through the south. Obviously, during that time, they  
20 wouldn't be as effective during those wind speeds.  
21 However, what we've done is, taking the wind data that  
22 we have, looking at how strong the wind is and how  
23 often it blows and then the direction it's blowing  
24 from, to help us design this site.

25 MEMBER HAENICHEN: I understand now, thank

1 you.

2 MR. NEMETH: You're welcome, sir.

3 CHMN. CHENAL: I have a follow-up question  
4 just for the benefit of the Committee Members that  
5 weren't on the tour.

6 You indicated that the length of the blades,  
7 and I guess you have to talk in terms of two blades --  
8 Could you just provide a summary again of the height of  
9 the entire structure and the length of the blades for  
10 the benefit of those that didn't have a chance to hear?

11 MR. NEMETH: So the turbine for this Project  
12 has not been determined yet at this time. What we have  
13 been doing is modeling a number of different turbines  
14 that would be suitable for this site, and then  
15 picking -- and what we did is, after identifying those  
16 turbines, what we chose to do is we chose the tallest  
17 turbine that could be considered for the site, and we  
18 are permitting that tallest turbine.

19 With that said, that turbine is -- I forget  
20 the exact height, but I believe it's approximately  
21 750 feet at the tip of the turbine. And the tip, or  
22 tip height, means that when the blade is pointed  
23 straight up, that is the highest point that the turbine  
24 can reach. And in this case, it'd be approximately  
25 175 -- I'm sorry -- 750 feet.

1           As far as the diameter, again, we would be  
2 looking at a turbine that could potentially have a  
3 blade span from one side to the other, think of it as a  
4 circle, so the diameter would be approximately  
5 150 meters, which, loosely calculated, that is over  
6 450 feet in diameter.

7           CHMN. CHENAL: And I think you also mentioned  
8 that the nacelles, that's the word you used, that the  
9 turbine actually can rotate to face the wind; is that  
10 also correct?

11          A. That is correct, Chairman. The nacelle is  
12 designed to actually, I believe, be able to go up to  
13 720 degrees, spinning around multiple times, before it  
14 actually has to kind of unwind itself. As mentioned  
15 out in the site visit, each turbine will have its own  
16 weather vane on it. And so what happens is, as the  
17 wind shifts in direction, the turbine has the ability  
18 to adjust itself to point into the wind to make it as  
19 most efficient as possible.

20          CHMN. CHENAL: Any further questions from the  
21 Committee?

22           (No response.)

23          CHMN. CHENAL: That's very helpful.

24          Back to you, Mr. Acken.

25          MR. ACKEN: Thank you, Mr. Chairman. We have

1 no further questions for this witness.

2 At this time, we'd like to call our  
3 environmental panel, Allen Graber and David Barr.

4 CHMN. CHENAL: Very good.

5 Gentlemen, do you prefer an oath or an  
6 affirmation? Mr. Graber?

7 MR. GRABER: I'll do an oath.

8 CHMN. CHENAL: Mr. Barr?

9 MR. BARR: I'll do an oath.

10 CHMN. CHENAL: Okay. Would you both raise  
11 your right hand, please.

12 (Allen Graber and David Barr were sworn  
13 en masse by the Chairman.)

14

15 ALLEN GRABER and DAVID BARR,  
16 called as witnesses on behalf of the Applicant, having  
17 been first sworn by the Chairman to speak the truth and  
18 nothing but the truth, were examined and testified as  
19 follows:

20

21 DIRECT EXAMINATION

22 BY MR. ACKEN:

23 Q. Mr. Graber, please state your name and  
24 business address.

25 A. (BY MR. GRABER) Allen Graber, 114 North

COASH & COASH, INC.  
www.coashandcoash.com

602-258-1440  
Phoenix, AZ

1 San Francisco Street, Flagstaff, Arizona.

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

4 A. (BY MR. GRABER) I'm employed by SWCA  
5 Environmental Consultants as a project manager and  
6 ecologist.

7 Q. And describe SWCA.

8 A. (BY MR. GRABER) Yes. SWCA is a nationwide  
9 environmental consulting firm founded here in  
10 Flagstaff. We help our clients navigate environmental  
11 compliance and permitting processes. We serve -- We  
12 serve clients from a variety of industries, including  
13 power generation and transmission.

14 Q. And what was SWCA's role in the preparation  
15 of the CEC application?

16 A. (BY MR. GRABER) We prepared the application  
17 and the accompanying exhibits under the applicant's  
18 supervision and review.

19 Q. Please summarize your educational and  
20 professional background.

21 A. (BY MR. GRABER) Sure. So I have a BS in  
22 Biology from St. Lawrence University. I've worked as  
23 an ecologist for universities and other research  
24 entities, state and federal government, a nonprofit  
25 conservation organization, and SWCA for 22 years. For

1 12 of those years, I've worked for SWCA as a project  
2 manager and ecologist.

3 Q. Mr. Barr, please state your name and business  
4 address.

5 A. (BY MR. BARR) David Barr, 343 West Franklin  
6 Street, Tucson, Arizona 85701.

7 Q. And by whom are you employed and in what  
8 capacity?

9 A. (BY MR. BARR) SWCA Environmental  
10 Consultants. I'm a project manager and archaeologist.

11 Q. And describe your educational and  
12 professional background.

13 A. (BY MR. BARR) I have a BA and an MA from  
14 Northern Arizona University in anthropology, emphasis  
15 in archeology. I've worked as an archaeologist for the  
16 Northern Arizona University, the National Park Service  
17 Flag area monuments, and other private contracting  
18 firms. I've been employed with SWCA for over 15 years.

19 Q. Mr. Graber, what are the key environmental  
20 resources that you evaluated for the CEC application?  
21 And following up on, it was a comment by Committee  
22 Member Woodall, if you would, also clarify whether your  
23 testimony is focused specifically on the Gen-Tie, the  
24 Wind Farm, or both.

25 A. (BY MR. GRABER) Perfect. So per the

1 statutory factors concerned in this forum, we reviewed  
2 biological, visual -- sorry, can you hear me --  
3 biological, visual, and cultural resources, land use,  
4 and sound.

5 Yes, all of my testimony, I think for the  
6 most part, will be directed towards the Gen-Tie  
7 Project. So when I say "Project," I'll mean Gen-Tie  
8 Project, for the most part, unless I specify otherwise  
9 or unless I get a question about the Wind Project,  
10 obviously.

11 I'll specifically be covering testimony  
12 regarding land use, biological resources, visual  
13 resources, and sound. My counterpart here, David, as  
14 the cultural resources lead, will be covering testimony  
15 regarding cultural resources.

16 Q. Describe the analysis you conducted for land  
17 use.

18 A. (BY MR. GRABER) So we identified current  
19 land activities, landownership, and land use  
20 designations. To identify plans for other developments  
21 in the vicinity of the Project, we conducted a general  
22 search online, and also sent letters to a number of  
23 relevant entities. They're listed up on the slide, but  
24 to list them out for you, that includes: Arizona State  
25 Lands Department, Arizona Game and Fish Department,

1 Apache-Sitgreaves National Forest, the BLM Safford  
2 Office, the Hopi Tribe, and, of course, Coconino County  
3 and Navajo County.

4 Q. What did you learn from the response to those  
5 letters?

6 A. (BY MR. GRABER) So we received a response  
7 from Coconino County; they indicated that they were not  
8 aware of any other plans for development within 5 miles  
9 of the Project vicinity.

10 We also -- Sorry. We also reviewed county  
11 land use zoning and recreational access agreements. I  
12 meant to say that previously.

13 Q. So what were your findings with respect to  
14 land use near the Gen-Tie route?

15 A. (BY MR. GRABER) So I think, as already has  
16 been mentioned repeatedly now through the testimony of  
17 the applicant, the main land uses in this Project area,  
18 as well the vicinity north of the Project area, include  
19 livestock grazing and dispersed recreation, primarily  
20 hunting.

21 I want to point out this figure. I know  
22 we've shown this figure repeatedly, it's figure A-2 in  
23 the application, and we've already discussed it at  
24 length, so I'll be brief. The Gen-Tie Line extends  
25 along, you know, open ranch lands, through private and

1 State lands, there's Forest Service in the vicinity of  
2 the Project, outside of the Project area, and Tribal  
3 Trust and State checkerboard to the north.

4 We have some large subdivided rural parcels  
5 that are southeast of the tie-in location in this  
6 general vicinity; a few of these are occupied. And  
7 three existing transmission lines, some of which -- we  
8 got to see some of those structures from afar today  
9 during the field visit.

10 CHMN. CHENAL: Mr. Graber, I have a question.  
11 The brownish color, which is the Hopi Trust Land, a  
12 couple questions.

13 First, that's not part of the Hopi  
14 reservation, is it, any part that's depicted on what  
15 we're looking at on the screen as Page 5?

16 MR. GRABER: That's correct. The Hopi  
17 reservation is north of Winslow, north of the highway.  
18 This is Tribal Trust Land, and it's leased for  
19 livestock grazing in this area.

20 CHMN. CHENAL: Is the land owned by the Hopi  
21 Tribe and then leased to others, is that your  
22 understanding?

23 MR. GRABER: That's my understanding.

24 BY MR. ACKEN:

25 Q. Mr. Graber, describe the zoning present in

1 the Project.

2 A. (BY MR. GRABER) Yes. So the private  
3 lands -- the private lands are under the jurisdiction  
4 of Coconino and Navajo Counties. The private lands on  
5 the Coconino County side are zoned general; the private  
6 lands on the Navajo County side are zoned A-general.  
7 I'll be talking a little bit more, and the applicant  
8 already has, about the permitting processes for the two  
9 different counties, but I'll keep it at that.

10 Q. So what were your conclusions with respect to  
11 the Project's effects -- and when I use the term  
12 "Project," I'm referring to the Gen-Tie -- on existing  
13 and future land uses?

14 A. (BY MR. GRABER) So the Project would be  
15 compatible with local land uses policies -- sorry --  
16 local land use policies and plans and current land  
17 uses. Surface ownership, jurisdictions, and land uses  
18 would not change. There's no designated recreational  
19 areas. The nearby federal and Tribal Trust Lands would  
20 not be impacted or developed.

21 The Project would be complementary to current  
22 land uses, which are livestock raising and recreation,  
23 with minor temporary impacts associated with hunting,  
24 hunters being deterred from the area during  
25 construction.

1           As mentioned, and as we've already mentioned,  
2 the applicant is seeking appropriate approvals and  
3 permits. Those include the Arizona State Land  
4 Department right-of-way, Coconino County conditional  
5 use permit, Navajo County special use permit, whereby  
6 after receiving those permits, the Project would be in  
7 compliance with state and local statutes. And we're  
8 not -- no zoning or plan amendment changes would be  
9 required as part of those permits.

10           CHMN. CHENAL: Thank you.

11           Member Hamway has a question.

12           MEMBER HAMWAY: So I know Mr. Acken has said  
13 that this is just for the Gen-Tie portion. So have you  
14 done these same studies -- And I know we're not going  
15 to see them and we're not going to discuss them. But  
16 have you done these same studies for the entire  
17 Project; and if so, who sees them and who oversees the  
18 fact that the Wind Farm might be on archaeological  
19 sensitive areas? I mean, I'm just curious. I know  
20 we're just looking at the Gen-Tie; I get that. But  
21 have you done other studies over the entire Project,  
22 and who would oversee that?

23           MR. GRABER: Yes. So in part of my testimony  
24 I'm going to get to the biological resource surveys  
25 that we've completed for the overall Wind Project,

1 including the Gen-Tie. David will be discussing the  
2 cultural resources survey campaign that we've been  
3 conducting.

4 MEMBER HAMWAY: For the whole Project, or  
5 we're just going to see...

6 MR. GRABER: We'll be -- You know, we're  
7 concentrating on the Gen-Tie Project here, but we can  
8 speak to the surveys that have been conducted for the  
9 full Wind Project, yes.

10 CHMN. CHENAL: Member Woodall.

11 MEMBER WOODALL: Mr. Barr, so I'm assuming  
12 you had long and fruitful conversations with the State  
13 Historic Preservation Office with respect to  
14 archaeological matters?

15 MR. BARR: That's not really the way we go  
16 about cultural resources. I'll be glad to discuss the  
17 steps that we take when we do a pedestrian survey. The  
18 State Historic Preservation Office will be involved  
19 when we submit the final report. After ASLD review,  
20 SHPO will have a chance to review, comment, and concur  
21 on our findings for the entire Chevelon Butte Wind Farm  
22 Project, including the Gen-Tie Project area.

23 MEMBER WOODALL: And so I'm assuming, at that  
24 point, if you have identified potential areas of  
25 historic or cultural significance, that information

1 would in turn be provided to the State Historic  
2 Preservation Office?

3 MR. BARR: That is correct. As we work  
4 through the report, the applicant is in the process and  
5 has been avoiding any archaeological sites that we have  
6 identified on the property. So when the report is  
7 submitted to the State Historic Preservation Office, we  
8 will state and show on our maps the methods that the  
9 applicant is using to avoid these sites. And I'll get  
10 into that in my presentation as well.

11 MEMBER WOODALL: Sure. And you'll provide  
12 them with maps of super secret sites that will not be  
13 made public; is that correct?

14 MR. BARR: That is correct. They'll have  
15 maps showing all the locations of the sites, and then  
16 they'll also have the individual site maps that will  
17 show the component of the Project in relationship to  
18 the site and the mitigation measures that will be  
19 employed to avoid any inadvertent impacts to the sites.

20 MEMBER WOODALL: Thank you very much for  
21 clarifying your inner-relationship with SHPO. I do  
22 appreciate it, sir.

23 BY MR. ACKEN:

24 Q. Mr. Graber, Member Hamway asked you about the  
25 other agencies that may review reports that are being

1 conducted on behalf of the entire Wind Farm. Would you  
2 briefly summarize the federal, state, and local reviews  
3 that will be undertaken for the Wind Farm as a whole?

4 A. (BY MR. GRABER) Right. So it's a bit of a  
5 loaded question, because there's quite a few different  
6 steps that the applicant is going through here, so --  
7 and several studies involved.

8 So in a nutshell, though, all of our studies  
9 for the Wind Project area, as well as the -- well, for  
10 the Wind Project area is being -- would be vetted  
11 through the Coconino County and Navajo County permit  
12 processes, as well as the Arizona State Land Department  
13 right-of-way.

14 There's been, as discussed previously, a  
15 fairly exhaustive public involvement for this Project.  
16 For our biological surveys, for example, the Fish and  
17 Wildlife Service and Arizona Game and Fish Department  
18 review our studies and have input on a bird and bat  
19 conservation strategy and conservation plan.

20 MEMBER HAMWAY: Okay, thank you.

21 CHMN. CHENAL: I had a question regarding the  
22 FAA. Is any aspect of the Project, the Gen-Tie Lines,  
23 towers, the turbines, is any aspect impacted by FAA  
24 regulations?

25 MR. GRABER: So I know the applicant has been

1 driving those communications with the FAA, so I don't  
2 feel completely confident with answering that.

3 MR. ACKEN: Mr. Chairman, I would propose to  
4 have Mr. Unrein answer that question. I believe he's  
5 still under oath and is familiar with the process.

6 CHMN. CHENAL: That would be great.

7 MR. UNREIN: Yeah, so we have submitted  
8 various applications with the Federal Aviation  
9 Administration for all of the turbine locations that  
10 we're seeking approval for, and we are actively engaged  
11 in that process and working through that process with  
12 them. It's a multitiered, very exhaustive, you know,  
13 aeronautical safety review that the FAA performs in  
14 coordination with the Department of Defense and local  
15 airports, et cetera.

16 And the short answer to your question is:  
17 Yes, we're in the middle of that now. We've recently  
18 kicked them off for kind of a big second more detailed  
19 phase of their analysis, as we expected. So yes, we're  
20 actively working, on a weekly basis, with the FAA.

21 CHMN. CHENAL: You indicated, during the tour  
22 today, that one of the meteorological stations was -- I  
23 forget what height it was, but I thought you indicated  
24 that if it was above a certain height, it would require  
25 lighting for aircraft.

1           So first question is: What is that height  
2 that would require the lights on that tower?

3           MR. UNREIN: Mr. Chairman, it's 200 feet  
4 above ground level.

5           CHMN. CHENAL: So next question: Are there  
6 lighting requirements for the towers for the Gen-Tie  
7 Line or the turbines, because they're going to be  
8 higher than 250 feet?

9           MR. UNREIN: Yes. There will be lights that  
10 we go through, again, a very exhaustive engineering  
11 analysis with the FAA on every turbine on this Project.  
12 Yes, there will. On the transmission line structures,  
13 we are not expecting to exceed that 200-foot of AGL,  
14 above-ground-level threshold, so we're not expecting  
15 that the Gen-Tie tower structures will be lighted.

16           CHMN. CHENAL: So perhaps, at some point in  
17 the proceeding, you could talk about the potential  
18 lighting requirements. I guess it's more of a  
19 curiosity than anything we have jurisdiction over, but  
20 just a curiosity of the potential lighting requirements  
21 for the turbines as part of the -- well, it's not part  
22 of the viewshed analysis that you've done for the  
23 Gen-Tie Lines. Again, it's more curiosity than  
24 anything. But is it a possibility there's going to be  
25 160, you know, lights on these turbines in the Chevelon

1 Butte Project area?

2 MR. UNREIN: Yes, there will be. The FAA  
3 requires at least one, if not two, lights on every  
4 turbine facility on this Project. With that said, both  
5 of the counties here in particular have a very strong  
6 interest in radar-activated lighting schemes in this  
7 area, and that is something that we are experienced in  
8 designing and installing. And we are open to having  
9 those discussions with these counties in terms of  
10 installing a radar-activated lighting system, with the  
11 caveat that that requires FAA approval. We can't just  
12 go install an aircraft detection lighting system on our  
13 own. That requires special FAA approval that we're  
14 experienced in pursuing.

15 CHMN. CHENAL: Very good. Thank you for  
16 that. I know it's a little outside our scope, but it's  
17 just -- again, as I forewarned the applicant, there are  
18 aspects of this Project that are interesting for the  
19 Committee, so we appreciate you, you know, providing  
20 that background.

21 Member Woodall.

22 MEMBER WOODALL: You mentioned that the  
23 Department of Defense was involved with respect to your  
24 interactions with FAA. Is that always the case, or is  
25 there something about this particular locale that

1 brings the Department of Defense into some area of  
2 interest? And I know we're talking about the wind  
3 turbines now, but I'm just curious.

4 MR. NEMETH: As part of the FAA process, when  
5 you submit a 7460-1, which is basically your  
6 application for each location for a turbine that  
7 exceeds 200 feet, as part of their process with the  
8 FAA -- we say FAA in a very general sense. There's  
9 actually about 13 or 14 different departments that  
10 review each one of those turbine locations.

11 The Department of Defense Clearinghouse is  
12 one of those agencies, as well as the Air Force is  
13 another agency. So any time you submit an FAA, that is  
14 a part of it.

15 MEMBER WOODALL: Thank you, you've answered  
16 my question, sir.

17 MR. NEMETH: Perfect.

18 MEMBER WOODALL: Appreciate it.

19 MR. ACKEN: Thank you.

20 BY MR. ACKEN:

21 Q. Mr. Graber, did you have anything else, with  
22 respect to land use, that you wanted to discuss with  
23 the Committee?

24 A. (BY MR. GRABER) I believe that's all.

25 Q. Okay. Before we turn to the next slide,

1 which is biological resources, I want to take this time  
2 to have you sponsor and discuss CVN 12 and CVN 13.

3           Again, for the record, CVN 12 is a series of  
4 map panels that show the Gen-Tie corridor and  
5 substation locations. Do you have that in front of  
6 you?

7           A.     (BY MR. GRABER) I do.

8           Q.     And I'd like you, for the record, to walk the  
9 Committee through each panel and describe what this  
10 exhibit depicts.

11          A.     (BY MR. GRABER) Yes. So mine is stapled  
12 backwards, so hopefully yours is in the same direction.

13          Q.     No, they're all stapled backwards.

14          A.     (BY MR. GRABER) Okay. And apologies for  
15 that; we developed that last night, so they're stapled  
16 funny.

17                 So CVN 12 shows six different map panels. On  
18 each figure, there's an overview map depicting which  
19 one of those panels you're looking at as the Project,  
20 you know, heads from the northwest to southeast, Map 1  
21 being the northwestern-most panel, Map 6 being the  
22 southeastern-most panel.

23                 These figures are showing a little bit more  
24 detail on the Project area, including the township and  
25 range and sections, and obviously zoomed in so that we

1 can see the Project area a little bit better. There's  
2 an aerial background, as well as the landownership.

3 So we're seeing -- you know, it's not --  
4 Because we're seeing the aerial coming through the  
5 landownership layer, the colors might not be perfect  
6 for what they represent on the legend; but generally  
7 speaking, I think it's relatively easy to determine  
8 that the private is that more clear color and the blue  
9 is the State Trust Land.

10 So Map --

11 CHMN. CHENAL: Mr. Gentles.

12 MEMBER GENTLES: Thank you, Mr. Chair.

13 Generally, how long are these leases for, for  
14 each of the landowners?

15 MR. ACKEN: Mr. Chairman, Mr. Gentles, I'm  
16 going to turn that question over to Mr. Unrein.

17 MR. UNREIN: Mr. Gentles, was your question  
18 on the private leases or the State Trust leases or  
19 both?

20 MEMBER GENTLES: Both.

21 MR. UNREIN: So we pursue a minimum 20-year  
22 term, and our private lease is 30 years and with two  
23 10-year extensions on the private side. And we're  
24 doing something very similar on the State Trust, so a  
25 20-year minimum with extensions.

1 CHMN. CHENAL: So a follow-up question on  
2 that. I thought I heard that the projected useful life  
3 of the turbines is 20 years. So what is the -- Why  
4 the need for the 30-plus-year lease plus 10-year  
5 extensions?

6 MR. UNREIN: So generally, with the latest  
7 and greatest turbine technology, we are assuming a  
8 minimum 25-year useful life, and typically the tenure  
9 of our off-take agreements will be sometime around, you  
10 know, that type of tenure.

11 But with advances in turbine technology, you  
12 know, potential upgrades and major refurbishments and  
13 major maintenance, we like to have the optionality, in  
14 our real estate rights, to extend the life of the  
15 turbine -- to extend the life of the project and its  
16 ability to stay there and provide power beyond -- you  
17 know, beyond that 25-year threshold. Because you can  
18 do turbine replacements and major maintenance to extend  
19 that, if there's desire in the marketplace to keep  
20 generating power at this location.

21 CHMN. CHENAL: So it was never the intent of  
22 the applicant that by installing turbines that have a  
23 useful life of 20 to 25 years, that that would be the  
24 length of time that the Project would be in operation.  
25 The anticipation is that the wind generation facilities

1 would be there for a much longer time?

2 MR. UNREIN: It's challenging for us to  
3 speculate with the energy market, you know, over two  
4 decades out. But generally speaking, when we develop  
5 these large utility-scale solar or wind assets, we are  
6 hopeful that, you know, there could be an electrical  
7 demand after the original tenure of our off-take  
8 agreement, so that we would try to position ourselves  
9 to do major refurbishments and major maintenance and  
10 equipment replacements to keep delivering power to the  
11 off-taker.

12 CHMN. CHENAL: And then I believe this has  
13 already been asked and answered, but the leases that  
14 you will enter into with the private landowner and the  
15 State Trust will be for all the facilities, and not be  
16 specifically for just the ones that -- but would be for  
17 all the facilities, the turbines, the lines,  
18 substations, and everything else, correct?

19 MR. UNREIN: That is correct. We are working  
20 with the landowner -- with the private landowner family  
21 on one large infrastructure package that includes the  
22 footprint of all the different components. And the  
23 same thing with Arizona State Land, we're working with  
24 them on everything, one large design package.

25 CHMN. CHENAL: Thank you.

1 Member Hamway.

2 MEMBER HAMWAY: So at the end of these power  
3 purchase agreements or the leases or whatever --

4 Oh, sorry. Now I lost my train of thought.

5 Oh, let's say no one wants to renew, and they  
6 want to shut you down like they're doing to the Cholla  
7 thing. So do you -- Who removes all this equipment?

8 MR. UNREIN: We will. And we are required to  
9 procure an Arizona professional engineer stamp  
10 decommissioning cost estimate and get that reviewed and  
11 approved by both counties before they will issue us  
12 building permits. So before we can build these  
13 projects, we have to get, you know, a third-party  
14 engineer stamped cost estimate, and then we have to  
15 post bond for the cost of removal.

16 MEMBER HAMWAY: Thank you. That's what I  
17 wanted to hear.

18 CHMN. CHENAL: Member Riggins.

19 MEMBER RIGGINS: Mr. Unrein, for the State  
20 Land parcels, does the Arizona State Land Department  
21 conduct an analysis similar to environmental impacts or  
22 whatever kind of impact to their parcels during the  
23 acquisition phase?

24 MR. UNREIN: Yeah, that's a great -- that's a  
25 great question. So the Arizona State Land Department

1 will be reviewing, in great detail, all of our cultural  
2 resource reporting, all of our jurisdictional water  
3 reporting, and native plant inventories. So we're  
4 happy to speak about all of those studies further, but  
5 all of those studies are complete, we're in the  
6 reporting phase, and we're working with the State Lands  
7 Department on that.

8           And furthermore, on the native plant side, we  
9 have to -- we have to quantify all of the listed and  
10 protected plant species that may be impacted by our  
11 infrastructure, and we have to compensate the Arizona  
12 State Lands Department based on the salvage value that  
13 they publish. I'm not sure how often they update the  
14 actual monetary values of different plant species. But  
15 long story short, we have to quantify everything and  
16 pay them for removal of those plants. And that, again,  
17 goes to parcel beneficiaries, which consist of public  
18 education and university funds.

19           MEMBER RIGGINS: Thank you.

20           CHMN. CHENAL: Member Woodall.

21           MEMBER WOODALL: I'm not sure if you had  
22 intended for CVN 12 to potentially be a component of  
23 Exhibit A to any CEC which might be issued. I would  
24 just make one suggestion. I realize that by looking on  
25 the lower right-hand corner, you have the map for that

1 particular page outlined in red; but I would suggest to  
2 you that most of the people that are going to see this,  
3 it's going to be in black and white. So perhaps you  
4 could put an individual label on each of the maps so  
5 that it would be a little clearer. Because it's going  
6 to be black and white for most people, especially if  
7 they pull it up from docket control. Thank you.

8 MR. GRABER: Yes, we can do that.

9 I would like to speak to those figures a  
10 little bit more.

11 BY MR. ACKEN:

12 Q. Yes, please.

13 A. (BY MR. GRABER) So walking through that a  
14 little bit, and I don't want to spend a ton of time on  
15 this, but Map 1, of course, shows Substation 2. Map 2  
16 shows as the Project is going northwest to southeast  
17 just north of Chevelon Butte, which we were observing  
18 this morning. Map 3 is showing Substation 1.

19 And then I think the more critical element  
20 that you wanted to see with your question yesterday,  
21 Ms. Woodall, is the Map 6, which shows, as the  
22 right-of-way increases from 500 feet to accommodate  
23 those -- the two different switching station options,  
24 we're seeing -- we're indicating the measurements  
25 across that right-of-way from 500 feet up to 1200 feet.

1 MEMBER WOODALL: Much as I would like to take  
2 credit for that, I believe that was Ms. Noland --

3 MR. GRABER: Okay, sorry about that.

4 MEMBER WOODALL: -- Member Noland's issue.  
5 She's our land use expert here.

6 MR. GRABER: Thank you.

7 BY MR. ACKEN:

8 Q. Thank you, Mr. Graber. Next, I'd like you to  
9 discuss what's been marked as CVN 13. This is -- the  
10 heading, it's entitled "Chevelon Butte Wind Farm -  
11 Public Comment Summary 9-16-19," and this was discussed  
12 in response to a question from Committee Member  
13 Gentles. So if you would, just take a quick moment and  
14 describe for the Committee what this exhibit presents.

15 A. (BY MR. GRABER) Yes. So Table 1 presents  
16 categories of concerns that the public has had and how  
17 those responses have been addressed overall. They're  
18 not specific responses per comment, rather, covered  
19 under categories such as, you know, visual impact,  
20 visual simulation, concerns about wind turbine height,  
21 et cetera.

22 Table 2 indicates the specific public  
23 comments that the applicant has received from specific  
24 individuals to date.

25 So it's clearly a bit of information to

1 digest, but that's generally what those tables are  
2 showing.

3 MR. ACKEN: Yes, Member Haenichen.

4 MEMBER HAENICHEN: I don't have 13.

5 CHMN. CHENAL: Let's give the Committee a  
6 couple minutes to review these comments. It's pretty  
7 lengthy.

8 Member Noland.

9 MEMBER NOLAND: Mr. Chairman, I have a quick  
10 question. I don't know who might be able to answer it.

11 I noticed in the letter from Mayor McCauley  
12 that he specifically just uses the term "I endorse  
13 this." Was there an endorsement by the Winslow City  
14 Council?

15 MR. UNREIN: Not to our knowledge, no. We're  
16 not aware of any formal endorsement by the Winslow City  
17 Council.

18 MEMBER NOLAND: Okay. So it was just the  
19 Mayor?

20 MR. UNREIN: Just the Mayor, and we've also  
21 received a positive support letter from the Winslow  
22 Chamber of Commerce.

23 MEMBER NOLAND: Thank you.

24 CHMN. CHENAL: Member Woodall.

25 MEMBER WOODALL: Are there any comments

1 specifically on here relating to the transmission  
2 lines? If you could direct me, because it's a lot --  
3 and plus, the font is small, she said just like a  
4 cranky old lady.

5 MR. UNREIN: Yeah, so give me a moment. Yes,  
6 there is one area of comment. Let me find it on the  
7 page number.

8 So the second to last comment on Page 2,  
9 titled "Local Electrical Distribution Service," that's  
10 really the only set of comments that we've received  
11 which are specifically in connection with the  
12 transmission facilities in which some property owners  
13 east of our site in Navajo County -- again, east of our  
14 site in Navajo County has been subdivided. There's a  
15 lot of individual property owners. There's really no  
16 utility services available in this part of the county,  
17 be it electrical or gas. And we've been asked by a  
18 handful of folks if our Project would provide  
19 residential service to that part of the county.

20 MEMBER WOODALL: Have you explained to them  
21 the difference between retail energy sales and  
22 wholesale energy sales?

23 MR. UNREIN: We felt like that could have  
24 been a little bit more confusing. So what we've tried  
25 to explain is that APS has the exclusive authority to

1 serve retail customers in its service territory.

2 MEMBER WOODALL: So you've given the  
3 substantive part of the answer, thank you. And thank  
4 you for pointing that out to me, I do appreciate it.

5 CHMN. CHENAL: Member Haenichen.

6 MEMBER HAENICHEN: Is it appropriate to ask  
7 questions about any item on this CVN 13 at this point?

8 CHMN. CHENAL: I believe it is,  
9 Mr. Haenichen. That's pretty much the reason for the  
10 comments.

11 MEMBER HAENICHEN: I'm looking at the last  
12 one on the same page we were just looking at, risk of  
13 fire, and there's some verbiage there that says turbine  
14 fires are very rare.

15 My question is this: Is any portion of this  
16 line in that forested area that's referenced in the  
17 application? Because I'm thinking about the PG&E  
18 situation now, where they're being sued for  
19 \$40 billion, and it's not because of a turbine fire,  
20 it's because a transmission line fell down.

21 So to clarify my question, are any of the  
22 portions of this line in that forested portion of this  
23 property?

24 MR. UNREIN: So I'm going to defer -- I'm  
25 going to defer to Mr. Graber and his testimony to speak

1 to any unique tree or habitat features. Kind of on the  
2 east side there, to my knowledge, it's all relatively  
3 homogenous vegetation and plant communities. There is  
4 increased pinyon-juniper trees near the canyons, but  
5 it's very homogenous and consistent with the area where  
6 three existing transmission lines already run.

7           Yeah, Allen, I'll turn it over to you, if  
8 you're aware of any large tree communities or plant  
9 species populations in our Gen-Tie Line route.

10           MR. GRABER: You're exactly right. And I  
11 could get into this more; I was actually going to in a  
12 couple slides. But the short answer is: The major  
13 part of the Project area is that shrub-steppe-type  
14 habitat that we saw this morning during the field trip.  
15 Further, the southeastern-most extreme of the Project  
16 area is more dense juniper habitat. That same juniper  
17 habitat extends beyond Chevelon Canyon to the east, as  
18 well as to the south into the Forest Service. There is  
19 some mapped ponderosa pine much further to the south as  
20 you're getting closer towards Heber, I want to say  
21 5 miles south of the Project area, something like that.

22           MEMBER HAENICHEN: Okay. Well, I find those  
23 comments a little confusing for me. I realize that  
24 most of the Project will not be in any of the tree  
25 areas. But are there any portions, even a half a mile,

1 where a fire could start because a transmission line  
2 fell on it?

3 MR. UNREIN: The main tree populations we're  
4 aware of are pinyon-juniper, which is a common tree  
5 species that span this whole region of Arizona. So the  
6 answer is: No, our transmission corridor, to our  
7 knowledge, does not go through any large forested or  
8 tree areas that are unique or not homogenous across  
9 this entire region, which is already traversed by  
10 existing transmission lines.

11 MEMBER HAENICHEN: Okay. So you're relying  
12 on the fact, then, that in the areas where there are  
13 trees hanging around, that the other transmission lines  
14 are there too. Is that your answer to me or what?

15 MR. UNREIN: The answer is that there's no  
16 unique vegetation or tree communities in our Gen-Tie  
17 corridor that we're aware of that would increase fire  
18 risk relative to the hundreds of miles of transmission  
19 lines in this region. But we can't speculate, if our  
20 transmission line or other transmission lines fell,  
21 whether or not that would cause a fire. That would  
22 just be pure speculation.

23 MR. ACKEN: And, Mr. Haenichen, one way we  
24 thought to address the question would be to present the  
25 virtual tour again and show that eastern area of the

1 Project so you can see the density of the vegetation,  
2 and I think that might provide some additional context.  
3 So we do plan to do that with Mr. Graber's testimony  
4 here in the next section.

5 MEMBER WOODALL: If I might be so bold. In  
6 your presentation, Mr. Graber, you've got a SWCA  
7 Exhibit Number 5, and it shows the Forest Service there  
8 and it shows the line. Based on Mr. Haenichen's  
9 questions, I'm kind of interested in knowing how near  
10 the forest is to this switching option and these  
11 transmission lines. And it's on CVN 3.

12 So after you asked the question,  
13 Mr. Haenichen, I was curious about the distance. It's  
14 a reference to Exhibits A, F, and H, jurisdiction and  
15 land use findings, Page 5.

16 MR. ACKEN: Mr. Graber, she's referring to  
17 the Exhibit CVN 3, your slide presentation. So if we  
18 could go back one slide.

19 MR. GRABER: Okay, thank you.

20 So the question is: Where is the forested  
21 habitat in relation to those two switching stations?

22 MEMBER WOODALL: Yes, and any lines that  
23 might be within it. Thank you.

24 MR. GRABER: Okay, yes. So generally, the  
25 denser juniper habitats -- and I say "juniper." We're

1 saying pinyon-juniper or juniper. It's really juniper  
2 forest that's out here; there's very little pinyon.  
3 That's a little bit detailed and besides the point, but  
4 it's juniper habitat.

5 The denser habitat is around Chevelon Butte  
6 and a little bit of the area just west of Chevelon  
7 Butte and in this general area in the southeastern  
8 portion of the Gen-Tie and Wind Project area. Also, as  
9 you're heading outside of the Project area into the  
10 Forest Service, there's denser juniper habitat in this  
11 region.

12 I will mention that there's also a handful of  
13 drainages that extend northeast to southwest in the  
14 Project area, and there's stringers of juniper along  
15 those ranges.

16 MEMBER WOODALL: So did you contact the U.S.  
17 Forest Service about your Project? And I'm talking  
18 about the line and the turbines.

19 MR. GRABER: The Forest Service has been  
20 contacted about the Project. The applicant has mostly  
21 been driving that communication.

22 MEMBER WOODALL: The question is: Have they  
23 expressed any concerns about the proximity of the Line  
24 Project to the forest? I realize we've got other trees  
25 out there, but I'm now just focusing on the U.S. Forest

1 Service and whether they've expressed any concerns.

2 MR. UNREIN: They've expressed no concern in  
3 connection with this Project of any kind. And we  
4 voluntarily notified them of our Project and provided  
5 mapping in early 2019, and we continue to keep them up  
6 to speed on our permitting efforts. And they've  
7 received notices, just as our neighbor, in connection  
8 with these ACC proceedings.

9 I think it is a key note to point out that  
10 the green on this map is just national forest  
11 boundaries; that doesn't necessarily mean that that's a  
12 wooded forest. That's just a property boundary.

13 MEMBER WOODALL: Yes, I understand that. I  
14 know that green does not mean verdant with life forms.  
15 Thank you.

16 CHMN. CHENAL: Member Haenichen.

17 MEMBER HAENICHEN: Do you have something in  
18 writing from the Forest Service saying they have no  
19 concerns?

20 MR. UNREIN: Yeah, I have e-mail threads with  
21 the Forest Service that document how we notified them  
22 of the Project and that they've replied and said, thank  
23 you, we'd like to be kept up to speed -- or, kept  
24 updated as development and construction continues, et  
25 cetera.

1 MEMBER HAENICHEN: Okay. Can you share those  
2 with us?

3 MR. UNREIN: Sure.

4 MEMBER HAENICHEN: And just to summarize my  
5 concerns, are you saying that you believe there's no  
6 risk of a forest fire starting because of this  
7 transmission line?

8 MR. UNREIN: Was your question if we think  
9 there's no risk of fire in connection with this  
10 transmission line?

11 MEMBER HAENICHEN: Well, that's a good start.

12 MR. UNREIN: We don't think there's any  
13 elevated risk with our transmission line than the other  
14 transmission lines in this area, but any transmission  
15 infrastructure in the United States that's above  
16 vegetation always has a risk of fire.

17 MEMBER HAENICHEN: Okay. But that's an iffy  
18 answer to my concern. Because if you're using the fact  
19 that there are other lines there, so now you're just  
20 adding one more, well, if those other lines have some  
21 level of risk, that risk is increased by adding your  
22 line to the picture, is it not?

23 MR. UNREIN: I don't think that our line  
24 increases the risk of the other transmission lines  
25 causing forest fires in this area.

1           MEMBER HAENICHEN: No, that wasn't my  
2 question. The risk of any or all of the transmission  
3 lines causing fire is increased if you put more lines  
4 in a forested area, does it not?

5           MR. UNREIN: Yeah, that's true. The more  
6 lines you put in, there's always going to be an  
7 inherent risk.

8           MEMBER HAENICHEN: Okay. Well, I'm just  
9 registering my concern.

10          CHMN. CHENAL: Member Gentles.

11          MEMBER GENTLES: I'm good.

12          CHMN. CHENAL: I had a couple questions on  
13 the comments, and partly this is just to beef up the  
14 record a little. On Page 5, Mr. Brian O'Rourke's  
15 comments, you'll see he has four concerns listed in  
16 that cell, if you see where I'm referring to. And you  
17 alluded to this, but the first one is a question  
18 about -- really, this is more for the record -- "What  
19 financial guarantees are included in your Project for  
20 the removal of the towers once they have served their  
21 purpose?"

22                 And I just think that that comment -- Well,  
23 let's just address it. And you indicated bonding would  
24 be provided, but let's just hear your answer again on  
25 this concern.

1           MR. UNREIN: Yeah. So both on the county  
2 side, Coconino County/Navajo County, and the Arizona  
3 Department of State Lands, we'll be required to procure  
4 decommissioning cost estimates that are stamped by an  
5 Arizona registered professional engineer, and we will  
6 be required to post bond in that amount to decommission  
7 and remove the Project before construction can begin.

8           CHMN. CHENAL: Okay. And just to forewarn  
9 you, I don't know if it's in the proposed CEC or not,  
10 but I believe it was Member Drago who, in a previous  
11 case, we inserted his suggestion, remediation  
12 requirements when the Project is completed.

13           MR. UNREIN: Yes, Mr. Chairman, we will  
14 also -- in our county permit applications, and with the  
15 Arizona State Lands Department, we will have kind of  
16 preliminary decommissioning plans and site restoration  
17 plans. But again, with building permits and our final  
18 right-of-way, we will have to prepare a detailed site  
19 restoration plan that shows how we will remove the  
20 infrastructure down to a certain depth, bring in  
21 topsoil, uncompact the earth, revegetate, et cetera.

22           CHMN. CHENAL: Good, thank you.

23           Same page, Mr. Stephen Butler's comments,  
24 Cell 4 on Page 5. "Will there be a road built to the  
25 east of the interconnection switching station going

1 towards Heber?" That's the question.

2 MR. UNREIN: So there are two existing roads  
3 that we are considering to access the east side of the  
4 canyon: One is named Heber Road, that's a county road  
5 in Navajo County; and then there's also a series of  
6 Forest Service roads that get to the existing APS  
7 right-of-way. So there's two main road options that  
8 we're considering.

9 CHMN. CHENAL: And both of those will use --  
10 will partially use existing roads, do I understand that  
11 correctly?

12 MR. UNREIN: That's correct. They will use  
13 completely existing roads to get to the APS  
14 right-of-way.

15 CHMN. CHENAL: All right, thank you.

16 Now on Page 7, Candyce Schmid, Cell 10, her  
17 third question. And I guess we didn't really talk  
18 about this; and if we did, excuse me. But her question  
19 is: "I would like to see the power generated  
20 benefiting Arizona residents only."

21 Could you comment on -- I guess it's hard to  
22 comment on where the power is going to go. But how do  
23 you see the power generated by the facility being used  
24 to benefit Arizona residents, other than the -- we  
25 talked about some of the benefits to the grid, we

1 talked about that yesterday, apropos to the  
2 Commission's letter back to me.

3 But in terms of the power itself, what can  
4 you -- What can you comment on how that will benefit  
5 Arizona, as opposed to California or Nevada or New  
6 Mexico, residents?

7 MR. UNREIN: Mr. Chairman, as you alluded to,  
8 it's sort of tough for us to answer that explicitly  
9 because our intent is to, you know, market this to  
10 utilities, and then it's really up to them as to where  
11 they're going to distribute and transmit the power.

12 With that said, I can say that, you know,  
13 we're actively participating in APS's recent RFP, which  
14 is seeking that wind capacity. And if we're lucky  
15 enough to be selected and then go down that path with  
16 APS, they'll be required to prove that this is an  
17 economic decision, a good economic decision for the  
18 ratepayers, et cetera. So we're hopeful that this Wind  
19 Farm will provide clean and cost-competitive power for  
20 APS's service territory.

21 CHMN. CHENAL: That's not a fair question for  
22 me to ask, but that was a very good answer.

23 Member Gentles.

24 MEMBER GENTLES: Mr. Chair, thank you.

25 So I haven't gone through this in detail, but

1 just scanning it, there seems to be two main concerns  
2 coming through as threads, one being property value and  
3 two being height. Do you want to address those  
4 further?

5 MR. UNREIN: Yeah. So I'll start with  
6 property value. So the wind industry, and sPower in  
7 particular, we rely on the most statistically robust  
8 property value assessment that's been done in the  
9 United States, and that's two iterations of statistical  
10 analysis that have been done by the Lawrence Berkeley  
11 National Laboratory. So that's a -- You know, it's a  
12 relatively unbiased, independent think tank laboratory  
13 that's funded by the Department Of Energy.

14 The Lawrence Berkeley Lab came out with a  
15 study in 2009, and then revised the study to make it  
16 even more statistically robust in 2013. And I'm not  
17 comfortable directly stating the key conclusions of  
18 those studies just off of memory right now, but in  
19 summary, those two studies demonstrate that  
20 utility-scale wind energy projects do not have an  
21 appreciable impact on property values, whether it's --  
22 and then they perform their analysis before a wind farm  
23 is announced, after it's announced, before it's  
24 constructed, after it's constructed, et cetera.

25 So we're very confident in this case that our

1 Project will not have an appreciable impact on property  
2 values to these residents that are in Coconino County,  
3 over 8 miles from the nearest Project infrastructure.  
4 And in Navajo County, as our environmental witnesses  
5 will testify today, their views in our Project  
6 direction are already obstructed by existing  
7 transmission lines.

8 But those large Lawrence Berkeley studies are  
9 what we rely on for property values, and they indicate  
10 no appreciable impact. And, again, this is one of the  
11 most remote wind farms that our company and that the  
12 employees of our company have ever worked on. And  
13 other wind projects that we've worked on with residents  
14 much closer, we haven't seen evidence of major property  
15 value impacts.

16 On the height issue, that's certainly a  
17 concern, as you pointed out, a repeated concern. And  
18 all we can say is that turbine technology is changing  
19 and it's changing, and we're not really installing  
20 machines that are shorter than a 600-foot tip height in  
21 the United States and different parts of the region  
22 these days. And we spoke with the public audience that  
23 appeared last night, and we had an open discussion.  
24 Even if we lower the turbines to 650 feet or 600 feet,  
25 it doesn't make a difference to them, they would still

1 have a high value of concern.

2 So there's really not a whole lot we can do,  
3 because how short they would want to see these machines  
4 is just not what's being installed in the United States  
5 these days.

6 CHMN. CHENAL: Member Noland.

7 MEMBER NOLAND: Thank you.

8 Is it safe to say -- and anyone can answer  
9 this -- from the comments that you have given us in  
10 CVN 13, that there are no comments about the  
11 transmission lines and the transmission pole heights?

12 MR. UNREIN: That is correct, in CVN 13. And  
13 I'm just thinking back to the open house and all the  
14 different community meetings we've had. No, I can't  
15 think of any concerns expressed with respect to the  
16 height of the transmission lines or really anything  
17 about the transmission lines, other than residents  
18 in Navajo County being interested if our Project would  
19 provide retail service to their properties that they  
20 own.

21 MEMBER NOLAND: Thank you.

22 And Mr. Chairman, I think that's the crux of  
23 this issue. We can beat this horse to death about the  
24 turbines, but that's not what we are here to consider.  
25 I appreciate the comments of the people and all of

1 that; but from what I've seen, I don't see any comments  
2 on the substations, I don't see them on the switching  
3 stations. There were a couple questions on the leases  
4 of both the private property and the Arizona State  
5 Land. So I think we need to get back to the  
6 transmission line and the substations.

7 CHMN. CHENAL: Okay. I agree that the  
8 comments generally did refer to the turbines. There  
9 was a question or two about decommissioning of the  
10 towers, which we addressed, and there was a question  
11 about access roads to the towers for the transmission  
12 lines, which I think we addressed.

13 Member Haenichen, did you have a question?

14 MEMBER HAENICHEN: I did. I did, but  
15 Ms. Noland answered it beautifully.

16 CHMN. CHENAL: Member Woodall.

17 MEMBER WOODALL: Mr. Unrein, I'm sure you're  
18 aware of the statutes in Arizona that govern the  
19 jurisdiction of the Arizona Power Plant Transmission  
20 Line Siting Committee, and you may not know that these  
21 were written in the '70s, before there was a plethora  
22 of PV plants, wind farms, et cetera.

23 And I know your company works in multiple  
24 states, I gather. Are you aware of other states where  
25 the siting board has no -- or its equivalent has no

1 jurisdiction over wind farms?

2 MR. UNREIN: Mr. Nemeth could provide a  
3 better answer than I can, if that's okay, Committee  
4 Member Woodall.

5 MEMBER WOODALL: Absolutely. I'm just trying  
6 to get a sense of, you know, our particular statutory  
7 charge and whether other states perhaps have more  
8 expansive jurisdiction. And I'm talking about states.  
9 I understand you've got to get use permits from  
10 counties, et cetera.

11 MR. NEMETH: In the vast majority of states  
12 that I've worked in, typically the permitting of the  
13 project, as you mentioned, is truly at the county  
14 level. As far as the state level, you know, different  
15 states have it set up very differently. Some of them  
16 you have to do -- if it's over a certain kilowatt, you  
17 have to get the line done. If your power generation is  
18 over a certain amount of megawatts, you have to take it  
19 to the state level. So I think, you know, there's  
20 almost as many types of permitting regimes as there are  
21 states in the United States.

22 MEMBER WOODALL: I appreciate your trying to  
23 answer my impossible-to-answer question. Thank you so  
24 much, sir.

25 MR. NEMETH: You're welcome.

1 CHMN. CHENAL: All right. Mr. Acken, we're  
2 close to a break, but I thought I'd ask if there are  
3 any follow-up questions you have of Mr. Graber, or how  
4 much more do you expect Mr. Graber to be testifying?

5 MR. ACKEN: Well, we have several sections  
6 for Mr. Graber to discuss with respect to biological  
7 resources, visual resources, and sound. So as far as a  
8 break, this is probably an excellent time to take one.

9 CHMN. CHENAL: All right. And then how much  
10 time do you think you have in testimony, presenting  
11 your case, this afternoon, Mr. Acken?

12 MR. ACKEN: Mr. Chairman, we are on Slide 5  
13 of 21. I would guess half hour to 45 minutes for the  
14 remainder of the environmental panel. And at that  
15 time, I'm not anticipating any further testimony on  
16 behalf of the applicant, since we've been able to weave  
17 in what I think are responses to questions that the  
18 Committee has had for the applicant as well.

19 CHMN. CHENAL: Well, let's take a 15-minute  
20 break and then we'll resume in 15 minutes. Thanks.

21 (A recess was taken from 3:01 p.m. to  
22 3:25 p.m.)

23 CHMN. CHENAL: Let's go back on the record  
24 after our afternoon break.

25 Mr. Acken, I believe you have some more

1 testimony from Mr. Graber.

2 MR. ACKEN: Thank you, Mr. Chairman.

3 BY MR. ACKEN:

4 Q. Mr. Graber, if you would, please describe how  
5 you evaluated biological resources. And if I did not  
6 do this earlier, we are in CVN 3, which is the slide  
7 for Mr. Graber and Mr. Barr, and the biological  
8 resources discussion starts on Page 8.

9 A. (BY MR. GRABER) Yes. So we reviewed -- Oh,  
10 microphone. So we reviewed the Fish and Wildlife  
11 Service official species list for the overall  
12 Project -- and what I mean by that is the overall Wind  
13 Project -- and Arizona Game and Fish Department  
14 environmental review tool. These are both specific to  
15 the Wind Project. They list special status-species  
16 that are known or may occur generally in a region and  
17 provide information on the presence of critical  
18 habitats and so forth.

19 We reviewed several publicly available data  
20 sources, including HabiMap Arizona, Arizona Wildlife  
21 Linkages, Important Bird Areas, and so forth. Had  
22 multiple discussions, both with formal, sit-down  
23 meetings and e-mail correspondence, with Arizona Game  
24 and Fish and Fish and Wildlife Service experts that  
25 included data sharing, sharing minimization ideas, and

1 so forth. And we also conducted several site  
2 reconnaissance visits to generally understand the  
3 habitat associations in the Project area over multiple  
4 seasons, including when we first started in the fall  
5 and then into the winter.

6 Through that review, we evaluated  
7 special-status species with their habitat, areas of  
8 wildlife congregation or seasonal importance, effects  
9 of wildlife with respect to habitat concerns, and areas  
10 of biological wealth, such as critical habitats,  
11 wildlife refuges, important bird areas, and so forth.

12 For the larger Wind Project, as mentioned, we  
13 had quite a bit of coordination with Arizona Game and  
14 Fish and Fish and Wildlife Service to develop a  
15 wildlife survey plan. That wildlife survey plan  
16 includes methods for the surveys that we've conducted  
17 out there, which include an inventory of raptor nests  
18 by helicopter, ongoing avian use counts, eagle flight  
19 path mapping, bat acoustic monitoring. We saw earlier  
20 that one met tower, one of our bat acoustic monitors is  
21 up on that met tower. We have a total of six out  
22 there, for example.

23 We've also currently -- We've also completed  
24 surveys for Arizona Native Plants Law, protected  
25 species, as well as waters of the U.S.

1 Q. What wildlife may be present?

2 A. (BY MR. GRABER) If I could just real quick,  
3 we're going to -- I'd like to switch to that aerial  
4 image of the turbine layout, so I can really quickly  
5 just show the habitat one more time.

6 Q. And this is in CVN 2, Slide 6, I believe.

7 A. (BY MR. GRABER) Yes, I just wanted to  
8 address that earlier question just really briefly.  
9 We're essentially seeing in this figure the juniper  
10 forested area that's central to the site around  
11 Chevelon Butte and just west of the Project area, as  
12 well as relatively small patches of juniper habitat  
13 interspersed with shrub-steppe grasslands in the  
14 southeastern portion. I think you can generally make  
15 out those juniper forested areas, as well as stringers  
16 in this central part of the Project area. The majority  
17 of the Project area is shrub-steppe grassland habitats.

18 Q. And is that what could be seen on the tour  
19 this morning?

20 A. (BY MR. GRABER) Exactly, thank you. So  
21 particularly when we were in POI 3, along here on  
22 Forest Road 504, as we were looking out southeast  
23 towards the transmission line, we could see more of  
24 that sparse mixed grassland shrub-steppe habitat and  
25 some of the juniper forested areas in the background.

1 Q. If you would, let's move back to CVN 3,  
2 Slide 9.

3 A. (BY MR. GRABER) So generally speaking, the  
4 wildlife that would occur within the Project area is  
5 characteristic to this area for juniper and  
6 shrub-steppe habitats, which are generally ubiquitous  
7 to northern Arizona.

8 With regard to threatened and endangered  
9 species, we determined that four species may occur,  
10 though rarely, if at all. Those include: Mexican  
11 spotted owl, Mexican wolf, Chiricahua leopard frog, and  
12 California condor. And the reason I'm saying that they  
13 would rarely occur, if at all, is because the Project  
14 area and its vicinity is marginally suitable for --  
15 provides marginally suitable habitat. Potential  
16 possible habitats would be avoided. And the Project is  
17 generally outside of the primary range for some of  
18 these species.

19 With regard to other special-status species,  
20 we've included a list, in Exhibit C, of species of  
21 greatest conservation need, eagles, birds of  
22 conservation concern that may occur in the Project  
23 area. These include species such as: Pronghorn, bald  
24 eagle and eagle, ferruginous hawk, peregrine falcon,  
25 and so forth.

1 Q. What mitigation measures can be implemented  
2 to reduce the potential impact?

3 A. (BY MR. GRABER) Yeah, so the applicant will  
4 be following Avian Power Line Interaction Committee  
5 standards for limiting collision and electrocution  
6 occurrences. Stock tanks in Chevelon Creek, which  
7 could support amphibian or fish species, would be  
8 avoided. Barn owls -- or, sorry. Prairie dog burrows,  
9 which could support barn owls, would be avoided if  
10 they're indeed found on site. Loss of native plants --  
11 As Terrance mentioned earlier, loss of native plants  
12 would be compensated for. Those native plants that are  
13 on State lands would be compensated for and appropriate  
14 notifications would be made to the Arizona State Land  
15 Department. And the Project would be compatible with  
16 the Migratory Bird Treaty Act, either through clearance  
17 surveys prior to construction, or the Project would  
18 avoid the Migratory Bird Treaty Act nesting and  
19 breeding season.

20 CHMN. CHENAL: Mr. Graber, you covered a lot  
21 there. And before I get into your conclusions, I've  
22 got some questions.

23 First of all, what is the Migratory Bird  
24 Treaty Act? Is that what it is?

25 MR. GRABER: Yes, sorry. So the Migratory

1 Bird Treaty Act protects any migrant birds. There's a  
2 long list of a thousand bird species that that Act  
3 protects, particularly the eggs and nestlings of nests  
4 for those species. Any project is not allowed to  
5 knowingly take those nests or eggs or individual birds.

6 I could get in a little deeper there, that  
7 there is currently a memorandum from the current  
8 administration that indicates that incidental taking of  
9 nests might not actually be a violation. But that's,  
10 at least for developers, generally seen as a short-term  
11 guidance, rather than a long-term protection for  
12 prosecution inferences.

13 CHMN. CHENAL: Okay, thank you. I've got a  
14 number of questions.

15 The APLIC aviation-safe design standards.  
16 Explain what APLIC stands for and what are the design  
17 standards.

18 And I'm going to want to go back, after your  
19 explanation, to the Slide 6 of Exhibit 2 that shows the  
20 layout of the turbines and the line, transmission line.

21 MR. GRABER: Thank you, Mr. Chairman.

22 So APLIC is the Avian Power Line Interaction  
23 Committee; they present guidelines. Which there's two  
24 different documents, they're both very thick, but they  
25 essentially say, for collision, to avoid areas that

1 might congregate birds, or use bird diverters to make  
2 the lines stand out more readily.

3 CHMN. CHENAL: What are bird diverters,  
4 please?

5 MR. GRABER: Yes, sorry. Bird diverters  
6 are -- there's a number of different types of bird  
7 diverters. They essentially are markers on the lines,  
8 they could be balls or flags, that break up the line so  
9 that birds can see them.

10 As far as electrocution guidance, the APLIC  
11 standards are particularly for eagles and raptors. The  
12 guidance is to space phases, electrical phases, either,  
13 you know, 40 inches vertically, 60 inches horizontally  
14 to make it such that raptors can't be electrocuted by  
15 touching different electrical phases of the lines. And  
16 in this case, you know, that's typically an issue with  
17 smaller lines. These transmission lines would already  
18 be spaced those amount -- that amount to avoid  
19 electrocutions.

20 CHMN. CHENAL: You said there's two  
21 different, for lack of a better word, memoranda or  
22 guidelines. What's the other one? And what decides  
23 whether you are bound -- the applicant is bound by the  
24 one versus the other?

25 MR. GRABER: Yeah, so the two documents that

1 I was mentioning, one is specifically guidance for  
2 collisions, and the other is more broad. They're two  
3 documents that supplement each other.

4 CHMN. CHENAL: All right. So if we're going  
5 to include that in our condition, we would reference  
6 both, both documents?

7 MR. GRABER: Yes. And then in terms of how  
8 that gets built into a Project, of course, through this  
9 Committee. But also, the APLIC standards are something  
10 that the applicant has already suggested that they  
11 would include in a bird and bat conservation strategy,  
12 an eagle conservation plan for Project, that would be  
13 vetted by Fish and Wildlife Service, Arizona Game and  
14 Fish Department.

15 CHMN. CHENAL: I'd like, if you would, at a  
16 break or sometime, could you write -- when you have a  
17 moment, write down and provide me with the names of the  
18 two guidelines, I don't know what other word to use,  
19 that you've just referenced, the full title, and if  
20 there's an applicable year for the most recent version.  
21 I would appreciate that.

22 Now, looking at Slide 6 of Exhibit 2, I'm  
23 surprised there's not more citizen concern over bird  
24 strikes. And I know this is not our jurisdiction over  
25 the turbine part of it, but I'm going to anticipate

1 that the turbines are going to cause more potential  
2 bird strikes than the power lines.

3 I remember -- I think we'll all remember at  
4 the SunZia call to the public, a gentleman stood up and  
5 talked about the migratory pattern of the birds. And  
6 he said, just envision it's like a bunch of teenagers  
7 driving at night and driving backward, running into  
8 these power lines. I'm looking at that, and it looks  
9 to me like it's a pinball game on acid. If I'm a bird  
10 trying to go through there, I mean, I'm trying to dodge  
11 one turbine and then another and then, boom, I run into  
12 a transmission line. So that's the reason I'm asking  
13 some of these questions.

14 Yeah, we're not really -- we shouldn't  
15 concern ourselves so much with the turbines, but it  
16 seems to me common sense that if you've got some, you  
17 know, eagles flying through that area trying to dodge  
18 the turbines, you know, it makes the power line a  
19 little more dangerous than if turbines were not there.  
20 And I see Mr. Graber shaking your head yes.

21 So what can the applicant do to mitigate the  
22 increased danger to birds because the turbines are in  
23 the vicinity of the power lines?

24 MR. GRABER: Thank you, Mr. Chairman. So  
25 there's a number of different aspects, different

1 factors associated with your question. The first --  
2 the first step that the applicant or any applicant or  
3 any developer would take is to identify key  
4 concentration areas for birds and bats. So, for  
5 example, for this Project, we evaluate whether there's  
6 important stopover habitats, whether there's key  
7 riparian areas that --

8 (Reporter clarification.)

9 MR. GRABER: -- stopover areas or key  
10 riparian areas, stopover sites for birds, important  
11 wetlands, important, you know, bat movement corridors  
12 where there might be colonies, things like that. So  
13 we've evaluated those and recognized that this Project  
14 doesn't have those features.

15 There are two canyons on the northern extreme  
16 and southeastern extreme of the Project area.  
17 Generally for migrant birds, both for raptors and  
18 neotropical migrants, you look to large north-south  
19 ridgelines that could concentrate those types of birds,  
20 which this Project doesn't have. It has two canyons  
21 that generally pass north -- sorry -- northeast to  
22 southwest, they're following parallel.

23 Generally, in Arizona, we see big migration  
24 pathways through the Grand Canyon. In New Mexico, we  
25 see big migration pathways through the Sandia

1 Mountains. But generally, there's a broader migration  
2 front in this part of the region. That's not to say  
3 that there's not going to be fatalities for birds and  
4 bats. Every wind project in the country has some sort  
5 of level of bird and bat fatalities.

6           What a developer can do is, if there are  
7 specific features, like water features, they could  
8 avoid those. If there's specific eagle use areas that  
9 are obvious eagle use areas, they could avoid those.  
10 For this Project in particular, we don't have those.  
11 We have some eagle nests that have been identified  
12 further to the north of the Project area, as well as  
13 south of the Project area; the applicant has moved  
14 turbines around to buffer those nest locations  
15 appropriately. There's the Avian Power Line  
16 Interaction Committee standards that I mentioned for  
17 the lines.

18           As far as eagle use areas, you know,  
19 generally, we think of an important eagle use area --  
20 and I use that term because that's what the Fish and  
21 Wildlife Service uses -- an important eagle use area  
22 would be a nesting area or an important roost area or,  
23 you know, a major prairie dog colony that eagles would  
24 forage on regularly. And we just simply don't have  
25 that in this Project area.

1           The prairie dogs are few and far between.  
2   And it seems like over many years of ranching  
3   practices, and just prairie dogs not doing well in this  
4   general region, they've kind of weaned off on this  
5   Project area, there's not very many.

6           And, you know, Arizona Game and Fish has  
7   brought up the general concern that, okay, eagles could  
8   pass along those migration corridors or possible  
9   migration corridors of the canyons, and have  
10   specifically recommended either a half-mile buffer from  
11   those canyons or a 1-mile buffer around nests. And the  
12   applicant has been more than willing to move turbines  
13   around for that purpose.

14           CHMN. CHENAL: Just a couple -- I know there  
15   will be other questions.

16           Are there any specific mitigation measures,  
17   other than the APLIC avian-safe design standards, are  
18   there any other mitigation measures that would improve  
19   the, you know, avoidance of avian disaster flying  
20   through the area?

21           MR. GRABER: For this particular Project, I'm  
22   not aware of any others.

23           CHMN. CHENAL: Okay. And I appreciate that  
24   very much. I'd still like the names of the two  
25   guidelines.

1 Member Hamway, I thought you had a question.

2 MEMBER HAMWAY: Yeah, I do.

3 CHMN. CHENAL: And then we'll have  
4 Member Woodall.

5 MEMBER HAMWAY: So does the new height of  
6 these wind turbines, does that change what birds are  
7 affected? Like do eagles fly higher than sparrows and  
8 stuff like that?

9 MR. GRABER: Right. So you'd be surprised  
10 throughout the -- maybe not surprised -- but throughout  
11 the country, regardless if it's a bird that you would  
12 think would be on the ground versus one that's up high,  
13 generally across the board multiple different species  
14 collide with wind turbines, and therefore, there's --  
15 it's generally held that there's not a specific  
16 population level issue with most birds because, we're  
17 talking, you know, one, two birds from each taxonomic  
18 class that collide with turbines.

19 As far as the turbines, these particular  
20 turbines being higher than some of the older generation  
21 turbines, the research that's out there is limited.  
22 There's no evidence to date that increasing a turbine  
23 height would result in collisions with a different bird  
24 taxonomic group.

25 MEMBER HAMWAY: Is that because you haven't

1 installed these? Is that because you don't have any  
2 data because they're not very well installed? And have  
3 the APLIC, however you say it, APLIC standards, have  
4 they been updated to take into consideration the higher  
5 windmills?

6 MR. GRABER: So the APLIC standards are  
7 specific to the lines for collision and electrocution,  
8 limiting collision and electrocution concerns.

9 MEMBER HAMWAY: Skip that part.

10 MR. GRABER: As far as the question regarding  
11 whether or not the research is limited because the  
12 turbines that are considered here have not been  
13 installed in other places, and therefore, not  
14 researched, the question is really that there hasn't  
15 been a ton of research regarding the newer heights,  
16 which I'm talking even the 80-meter hub heights, which  
17 are 10-year-ago turbines, versus smaller turbines from  
18 that.

19 Generally, the research that's in American  
20 Wind and Wildlife Interaction Committees' publications  
21 has indicated that if we increase heights, the research  
22 to date is, A, we don't know, and B, we're not seeing  
23 any differences at this time.

24 MEMBER HAMWAY: Okay, thank you.

25 CHMN. CHENAL: Member Woodall.

1           MEMBER WOODALL: Okay. Referencing the  
2 application itself under Exhibit C, which is entitled  
3 "Areas of Biological Wealth," I note that you have  
4 helpfully included a letter from the Arizona Game and  
5 Fish Department dated July 2nd, 2019. And it could be  
6 something that would be directed to the Project  
7 proponents rather than you, Mr. Graber.

8           But do I understand correctly that the  
9 applicant has agreed to the mitigation measures  
10 contained in that letter?

11          MR. GRABER: The easy answer is yes. Yes.

12          MEMBER WOODALL: Now, I also note that the  
13 Department says, "Although not discussed, the  
14 Department would like to request consideration be given  
15 to the ferruginous hawk nest in the area." Is that  
16 something that the applicant plans on doing?

17          MR. GRABER: So the ferruginous hawk is a  
18 species of greatest conservation need.

19          MEMBER WOODALL: Sounds to me like they have  
20 a concern, so --

21          MR. GRABER: They have a concern for  
22 ferruginous hawk --

23          Sorry to interrupt.

24          MEMBER WOODALL: So is the applicant going to  
25 take great care with that regard?

1           MR. GRABER: Yes. The species is generally  
2 considered by Arizona Game and Fish to rarely nest in  
3 this particular region. We have one nest that we found  
4 during the helicopter surveys that was occupied, that  
5 was kind of right on the border of the Project area,  
6 and the applicant is seriously thinking through turbine  
7 design and buffering and following up on not only that  
8 nest, but two other possible ferruginous nest  
9 structures, to evaluate nesting next season, and  
10 thinking through possible buffering or other Migratory  
11 Bird Treaty Act compliance strategies.

12           MEMBER WOODALL: So the July 2nd letter from  
13 Arizona Game and Fish contained in Exhibit C to the  
14 application for a Certificate of Environmental  
15 Compatibility, the applicant has agreed -- has, in  
16 fact, agreed to those measures, and has further agreed  
17 to address the Game and Fish Department's concern with  
18 respect to the ferruginous hawk? I just want to get  
19 that on the record.

20           MR. GRABER: Yes, that is correct.

21           MEMBER WOODALL: And is that correct,  
22 Mr. Unrein, since you're going to be the one -- it's  
23 your Project?

24           MR. UNREIN: Yes, that's correct.

25           MEMBER WOODALL: Okay, that's fine.

1           And then I just had one other question of  
2 you, Mr. Graber, and it relates to Exhibit D to the  
3 application for a Certificate of Environmental  
4 Compatibility, and specifically, Page D-8. It's the  
5 references page.

6           And I note that one of your references is the  
7 Arizona Cattle Growers Association 2017 Chevelon Butte  
8 Ranch, Winslow, Arizona, Environmental Stewardship  
9 Award application. Can you tell me what that is?  
10 It's just not often that we see, you know, Cattle  
11 Growers cited as a reference. And I don't mean to  
12 imply that they shouldn't be, it's just unusual for me  
13 to see it.

14           MR. GRABER: Right, I know what you're  
15 referring to. I can't remember exactly what that was  
16 referencing. But the leasee, the current rancher in  
17 the Project area, has a long relationship with Arizona  
18 Game and Fish Department, where they've received  
19 funding for some of their stock tanks within the  
20 Project area, as well as -- I think, actually, this  
21 particular document references their award -- the  
22 leasee's award that they received from the Arizona Game  
23 and Fish Department regarding management for cattle and  
24 big game species, but specifically for removing of  
25 juniper habitat.

1           MEMBER WOODALL: I note that the reference is  
2 for an application for the environmental stewardship.  
3 Do you, in fact, know whether or not it was awarded to  
4 the landowner? And if you don't, that's fine.

5           MR. GRABER: I'm not sure.

6           MEMBER WOODALL: Okay. And is the landowner  
7 that you are referring to here the one that is going to  
8 be compensated for the wind turbines and the power  
9 lines?

10          MR. GRABER: Yes.

11          MEMBER WOODALL: Okay, that's all I wanted to  
12 know. And I imply no impropriety whatsoever. I just  
13 wanted to have that on the record. So thank you very  
14 much.

15 BY MR. ACKEN:

16          Q. All right. Mr. Graber, if you would, provide  
17 your conclusions regarding the Gen-Tie's potential  
18 impacts on biological resources.

19          A. (BY MR. GRABER) So we did not identify any  
20 areas of biological wealth, including critical habitats  
21 and wildlife refuges and wilderness areas and so forth.  
22 Because of minimal disturbance acreage, permanent  
23 disturbance acreage, we would anticipate minimal  
24 impacts to special-status species. We're talking  
25 18 acres of potential disturbance, and those areas

1 would be avoided that are recognized as special-status  
2 species habitats.

3 Ground-nesting birds and ground-dwelling  
4 mammals could be impacted during construction, however,  
5 those areas would be identified to the extent  
6 practicable and avoided to the extent practicable.

7 There would be temporary displacement for  
8 some species during construction; however, those  
9 impacts would be negligible to minor because of the  
10 proximity of nearby nonunique habitats in the region.  
11 And we would expect that those species and individuals  
12 would, again, come back into the Project area and, you  
13 know, resume normal behavioral patterns once they  
14 arrive back into the Project area.

15 Q. Mr. Barr, you've been waiting patiently.  
16 Would you describe the process you used to evaluate  
17 cultural resources?

18 A. (BY MR. BARR) So cultural resources were  
19 evaluated in several different methods: Archival  
20 review, pedestrian survey, documentation, assessment,  
21 and currently we're in reporting phase.

22 So once I received the Gen-Tie Project area  
23 map, I began reviewing the archival -- the available  
24 archival information. This started with the review of  
25 the AZSITE online database, which contains records of

1 previously conducted surveys and previously documented  
2 archaeological sites. The AZSITE online database  
3 contains records from the Arizona State Museum, Arizona  
4 State University, BLM, and some records from the State  
5 Historic Preservation Office and National Parks --  
6 sorry -- National Forests.

7 I went to the Arizona State Museum to review  
8 their files in their records office, because sometimes  
9 there can be a lag between when the Museum gets these  
10 reports and the data and gets it uploaded to the AZSITE  
11 online database. I reviewed the National Register of  
12 Historic Places online database to ascertain if there  
13 are any listed properties within the Project area.

14 And just to step back for a second, these  
15 techniques that I'm describing and the process we used  
16 was used for the Gen-Tie Line and for the overall  
17 Chevelon Butte Wind Farm Project. So this is what we  
18 did for everything.

19 Finally, I reviewed the General Land Office  
20 plat maps, historic-era topographic maps, historic-era  
21 aerials to see if there's potential for any historic  
22 properties within the Project area. All relevant  
23 records or locational data was digitized and provided  
24 to the survey crews prior to field work.

25 Once the archival research was done, we

1 conducted a pedestrian survey using the Arizona State  
2 Museum standard for survey coverage, which stated a  
3 person can achieve full coverage of a parcel or  
4 corridor by walking systematic parallel transects  
5 spaced no more than 20 meters, or 66 feet, apart.

6           Since the Gen-Tie Project area consists of  
7 State -- the Gen-Tie Project area consists of State  
8 Trust Land and private property, on State Trust Land we  
9 conducted the survey under our Arizona Antiquities Act  
10 blanket permit. Despite no state, county, or federal  
11 nexus, the applicant voluntarily requested we also  
12 investigate the private parcels to ensure no  
13 inadvertent impacts would occur to cultural resources  
14 during construction.

15           We surveyed the Gen-Tie Project area corridor  
16 of a 400-foot-wide corridor, except for, as we  
17 discussed earlier, the eastern 1 mile that spans up to  
18 1300 feet wide, which we surveyed as well. We also  
19 surveyed the two substation locations and the two  
20 Gen-Tie options.

21           Q.    What cultural resources are present along the  
22 Gen-Tie route?

23           A.    (BY MR. BARR) Let me take a step back.

24                    So during the pedestrian survey, we saw  
25 evidence in the form of features both prehistoric and

1 historic, artifacts both prehistoric and historic, or  
2 in-use historic-era properties. To be considered an  
3 historic property, it must be greater than 50 years  
4 old. For this Project, anything that made it to 1969  
5 or earlier was considered historic property.

6           Once evidence was identified, we assessed the  
7 artifacts or features using the Arizona State Museum  
8 site definition criteria. Based on this criteria, we  
9 identified one previously recorded site and 11 newly  
10 recorded sites. None of these sites are located within  
11 the substation locations or the two switching station  
12 options; they were all found within the Gen-Tie Line.

13           After documentation, we assessed the  
14 archaeological sites for eligibility for listing on the  
15 National and State Register of Historic Places. Based  
16 on our assessment, we recommended five sites eligible,  
17 six sites ineligible, and one site of indeterminate  
18 eligibility.

19           The findings for this survey for the overall  
20 Chevelon Butte wind Project and our results and  
21 recommendations will be provided to the Arizona State  
22 Land Department and the State Historic Preservation  
23 Office for review, comment, and concurrence.

24           Q.    What mitigation measures will be used to  
25 minimize or avoid impact?

1           A.     (BY MR. BARR) Avoidance is always the best  
2 mitigation measure when dealing with cultural  
3 resources. Since all these properties are located  
4 within the Gen-Tie transmission corridor, the applicant  
5 has stated they would be spanned and avoided. In  
6 addition, the sites will be fenced, including a 50-foot  
7 buffer, and monitored during construction. Using these  
8 methods, inadvertent impacts to cultural resources will  
9 be avoided; therefore, this Project will have no effect  
10 on cultural resources.

11           Q.     Thank you. Do you have any other comments  
12 for the Committee at this time?

13           A.     (BY MR. BARR) I do not.

14                   CHMN. CHENAL: Member Woodall.

15                   MEMBER WOODALL: Mr. Graber and Mr. Barr,  
16 could you describe what communications, if any, you had  
17 with the landowner in connection with your respective  
18 analyses, the cultural and biological? And you can  
19 flip a coin as to who goes first.

20                   MR. GRABER: No, I can go first; I'm just  
21 thinking.

22                   We've had multiple communications with the  
23 landowner, generally, about safety, avoiding cattle,  
24 those kinds of conversations. As far as understanding  
25 natural resources impacts, you know, the landowner has

1 pretty much said to us, yeah, I don't see many eagles  
2 out here, and that's really the size of it. It's been  
3 not very substantive type of conversations.

4 MEMBER WOODALL: Mr. Barr.

5 MR. BARR: My interaction with the -- not so  
6 much the current rancher, but part of the family, is  
7 when I was doing my archival review, I identified some  
8 surveys and sites that were not in the AZSITE database  
9 or at the Arizona State Museum. So I pulled the  
10 report, I found it, and was able to determine that the  
11 National Resource Conservation Service did quite a bit  
12 of survey on that ranch property. I was able to reach  
13 out to NRCS for that data, and I got the State Land  
14 data; but I had to reach out to a private landowner to  
15 get the rest of it, because they could not release  
16 that.

17 So I have had interactions receiving that  
18 data to facilitate our review of the Project area, and  
19 I've also been in contact with some of the family  
20 members regarding things that we found and a number of  
21 sites that we found. So we've been kind of sharing  
22 information, and they're very receptive and kind of  
23 excited that there's this history on the ranch that  
24 they really didn't grasp completely for the last  
25 hundred years that they've been out there.

1 MEMBER WOODALL: Thank you, you've answered  
2 my questions, both of you gentlemen.

3 CHMN. CHENAL: Member Drago.

4 MEMBER DRAGO: Yes. Mr. Barr, these  
5 findings, were they shared with the tribes, the  
6 affected tribes?

7 MR. BARR: They have not been shared with the  
8 tribes. That generally will happen at the discretion  
9 of Arizona State Land Department and SHPO, if they want  
10 to go that route. Or, depending on the communication  
11 that the applicant continues to have, we can provide  
12 them when the report is done, or if they want to hear  
13 some more early on during any more communication.

14 So generally, because there's no federal  
15 nexus, and it's State Land and private land, usually  
16 the tribes are not involved. It's only when it's a  
17 Section 106 and it's a federal undertaking.

18 MEMBER DRAGO: Thank you.

19 BY MR. ACKEN:

20 Q. Thank you, Mr. Barr.

21 Mr. Graber, next, let's discuss visual  
22 resources. Describe the analysis you conducted.

23 A. (BY MR. GRABER) Our analysis included a  
24 review of designated scenic areas, so national parks,  
25 wild and scenic rivers, designated scenic areas such as

1 that. We conducted a field reconnaissance visit to  
2 understand the landscape character of the Project area  
3 and vicinity. We performed a viewshed delineation,  
4 which approximated the facility visibility within  
5 5 miles of the Project area. And I'll show a figure  
6 regarding that viewshed delineation in a minute here.

7 And we also qualitatively addressed visual  
8 contrasts, which is the degree to which the Project  
9 would attract attention based on existing conditions  
10 and the proposed Project features, considering factors  
11 such as distance and viewer perception.

12 Q. What were your findings with respect to  
13 visual resources?

14 A. (BY MR. GRABER) So there are no designated  
15 scenic areas in the vicinity of the Project. Overall,  
16 we are determining that there would be minimal effects  
17 to visual resources regarding the Gen-Tie Line, and  
18 this is because there's few people that live in the  
19 area or pass through the area. And three existing  
20 lines exist where the nearest residences are currently  
21 located.

22 CHMN. CHENAL: Member Woodall.

23 MEMBER WOODALL: A little knowledge is a  
24 dangerous thing. It's my limited understanding that  
25 the different state and federal land management

1 agencies have different types of visual resources  
2 evaluation.

3 Did you use any particular agency's format or  
4 matrix or method; and if so, who?

5 MR. GRABER: I can describe the visual  
6 delineation that we did a little bit further in a slide  
7 upcoming, if that's okay. We did also do some typical  
8 visual renderings for the Wind Project, which are --  
9 will be vetted through Coconino County and Navajo  
10 County permitting processes.

11 MEMBER WOODALL: But you haven't, for  
12 example, relied on the U.S. Fish and Wildlife or the  
13 U.S. Forest Service or the BLM, because I know they  
14 have different methodologies. So you didn't rely on  
15 anyone's in particular? Yours is your own?

16 MR. GRABER: Essentially, yes. Our own, yes.

17 MEMBER WOODALL: Thank you very much.

18 BY MR. ACKEN:

19 Q. Mr. Graber, if you would, move to Slide 17.

20 A. (BY MR. GRABER) Yeah. So more specifically,  
21 our viewshed analysis and visual contrast found that  
22 there would be -- for folks that are traveling north --  
23 sorry -- southbound on State Route 99, which we were on  
24 earlier today, would have more frequent views of the  
25 Project, versus those that are traveling southbound --

1 to the north. There would be moderate to strong  
2 contrast for recreationists, depending on multiple  
3 factors, including distance and viewshed and how close  
4 they are to those existing lines and so forth.

5 Q. And in Slide 17 that's shown on the screen,  
6 about how far away are the transmission lines in that  
7 photograph, do you know?

8 A. (BY MR. GRABER) Yes. They're about  
9 900 meters, I want to say, which is about a half mile  
10 or so. This particular picture is right along the edge  
11 of Chevelon Canyon, the western portion of Chevelon  
12 Canyon, essentially where the western switching station  
13 option would be located, at least that general  
14 vicinity, looking east towards those existing lines.  
15 The nearest residence on the Navajo County side is in  
16 that general picture, you just can't see it, in this  
17 general area.

18 Q. Speaking of the nearest residence, please  
19 describe the map that's on Slide 18, which includes  
20 identification to residents both in Navajo and Coconino  
21 County.

22 A. (BY MR. GRABER) Yes. So this is the  
23 viewshed delineation that I was mentioning. This  
24 essentially shows the frequency of Project component  
25 views from any location within a 5-mile analysis area.

1 So you can see in this figure, the darker greens to the  
2 lighter greens to yellows, oranges, and then reds is  
3 essentially increasing intensity of Project component  
4 views -- those viewers can see within that analysis  
5 area.

6 What that's showing is essentially what we  
7 saw earlier today when we were out on the Project site,  
8 that this area north, in the northern portion of the  
9 Project area, is relatively flat, so the Project  
10 component views are greater in that area. This is  
11 showing four what are taxed as residences. I can't  
12 speak to the occupancy status or whether or not it's a  
13 primary or non-primary residence. But these are the  
14 four nearest residences to the site, the closest being  
15 a half mile southeast of the proposed tie-in location.

16 And what this is showing is, for the Gen-Tie  
17 Project, that where these residences currently exist,  
18 the number of Project components that would be viewed  
19 in those locations are in the range of 14 to 26  
20 components. They also have, of course, the existing  
21 transmission lines in the foreground of their view.

22 I do want to point out that, as Bert alluded  
23 to, the nearest residence in the Mogollon Ranch HOA on  
24 the Coconino County side is approximately 8 miles from  
25 the Project area, approximately 11 miles from the

1 Gen-Tie Project, and it was -- those -- that  
2 residence -- or, sorry. The subdivision, which is  
3 generally in this location, was outside of our analysis  
4 area in this case. The Gen-Tie would be very difficult  
5 to see from this HOA.

6 Q. Thank you. Finally, describe the analysis  
7 you conducted for sound and interference.

8 A. (BY MR. GRABER) Could I go back one slide?  
9 So I do want to mention -- And, I'm sorry, it's not  
10 addressing your question immediately.

11 But regarding viewshed, I also want to point  
12 out that this particular picture, for what it's worth,  
13 was taken from 2 and a half miles southeast of where  
14 the proposed tie-in location is located. So if you  
15 actually want to go back just one more slide even, that  
16 picture was taken right around in this general  
17 vicinity. And then if you hop back to the next slide,  
18 you can see the existing transmission line here. So I  
19 just wanted to point that out. At at least a 2-mile,  
20 2-and-a-half-mile distance, they're pretty hard to see.

21 Q. Okay, thank you. Please continue.

22 A. (BY MR. GRABER) And so for sound, we  
23 reviewed anticipated sound levels and communication  
24 interference during construction and operation of the  
25 Project in the context of the nearest sensitive

1 receptor, which is that nearest residence that's  
2 approximately a half-mile southeast of the proposed  
3 tie-in location.

4 Q. What potential effects might the Project  
5 have?

6 A. (BY MR. GRABER) So the effects would be  
7 negligible to minor during construction, and negligible  
8 during operation of the Project. The sounds from the  
9 Project would be compliant with local and  
10 national standards. The nearest residence, all four of  
11 those nearest residences that I showed are located  
12 closer to the existing lines than the planned tie-in  
13 location.

14 During construction -- construction that  
15 occurs -- The construction activities that occur on  
16 the eastern extreme, so, for example, where that tie-in  
17 location is, would be within the ambient sound levels  
18 that are currently considered for rural ambient sound.  
19 Just to give you that reference, that's 30 to 50  
20 decibels. So at the extreme-most eastern side of the  
21 Gen-Tie Project, construction activities would be in  
22 that 50-decibel range for the nearest residence, within  
23 that ambient sound.

24 Helicopter -- So there would be some  
25 helicopter use for stringing the lines during

1 construction. That activity would be below  
2 national standards -- I'm sorry -- it would be above  
3 the typical ambient sound, so it would be above that 50  
4 decibels, it would be in the 60, 65-decibel range, but  
5 below the EPA national standards. And that activity  
6 would be short-term in duration and limited to daylight  
7 hours.

8           During operations, corona noise from the  
9 Project would be inaudible to the nearest sensitive  
10 receptor due to attenuation over distance, and it would  
11 not be additive to the existing transmission lines that  
12 are currently out there.

13           As far as radio and television reception, we  
14 would expect no changes, because the existing  
15 transmission line is closer to those residences versus  
16 the Gen-Tie Project that's being proposed.

17           CHMN. CHENAL: Member Woodall.

18           MEMBER WOODALL: Since you were describing  
19 the construction activities, I wanted to ask you: What  
20 is going to be the source of power for these  
21 activities? Are we going to have a diesel generator,  
22 or are you going to have some kind of tie-in with the  
23 local service provider? How is that going to work?

24           MR. ACKEN: Member Woodall, we're going to  
25 identify the right witness to answer that question.

1           MR. NEMETH: The short answer is: We're  
2 still figuring it out.

3           MEMBER WOODALL: I guess that's the right  
4 witness, then.

5           MR. NEMETH: Yeah, it is.

6           So there is actually no distributed  
7 generation out there, period. So we've looked at  
8 evaluating on whether or not to work with APS to pay  
9 for a line that would come out to the site, which we're  
10 estimating is 14 to 15 miles potentially to get out  
11 there. We are also looking at do we use generators for  
12 certain aspects of it. We are also a solar company,  
13 and do we do some type of like a solar storage out  
14 there on a small scale to provide some backfeed power  
15 that we may need for some of the operational work  
16 during construction.

17           MEMBER WOODALL: So if you do need diesel  
18 generators, you're going to need some kind of permit  
19 from somebody for their emissions; is that correct?

20           MR. NEMETH: My understanding is yes.

21           MEMBER WOODALL: Okay, thank you.

22           CHMN. CHENAL: Another question. The  
23 helicopter, construction by helicopters, can someone  
24 just provide us a little more detail now that we  
25 touched on it the other day?

1           MR. NEMETH: Due to the size of the canyon,  
2 it's not feasible that we would actually just be able  
3 to string it in a normal situation. So a helicopter,  
4 and I've seen this done in more remote locations, in  
5 which a helicopter is used that would fly the cable  
6 from one end of the canyon to the next to allow them to  
7 interconnect the 345 Gen-Tie Line to the other one.

8           So, again, this would be just kind of a small  
9 duration, and probably less than a day's worth of work  
10 on moving that.

11           CHMN. CHENAL: Thank you.

12 BY MR. ACKEN:

13           Q. Thank you.

14           Mr. Graber, please summarize your findings  
15 regarding the project's effect on environmental  
16 resources.

17           A. (BY MR. GRABER) So we concluded that the  
18 Project would permanently disturb a relatively small  
19 amount of land, most of which is -- has been used for  
20 livestock grazing over a period of 130 years. The  
21 Project would be compatible with existing plans in the  
22 vicinity, and complementary to current livestock and  
23 recreational land uses.

24           The Project would not disturb any areas of  
25 biological wealth, with minimal impacts to

1 special-status species and their habitats.

2 The Project would not disturb archaeological  
3 or historic sites of significance, because they would  
4 be avoided.

5 The Project would have minimal visual and  
6 sound impacts, because generally few people live and  
7 pass through the area, and there's three existing lines  
8 that already exist to where the residences are  
9 currently located.

10 Q. In your professional opinion, is this Project  
11 environmentally compatible?

12 A. (BY MR. GRABER) Yes. For the reasons I just  
13 specified, the Project would be environmentally  
14 compatible.

15 MR. ACKEN: Thank you.

16 Thank you, Chairman, and Members of the  
17 Committee. We have no further testimony at this time.

18 CHMN. CHENAL: Member Woodall.

19 MEMBER WOODALL: Were you going to talk about  
20 your public outreach, or have you already done that?

21 MR. ACKEN: I believe we -- Well, we  
22 attempted to address the public outreach. So if you  
23 still have questions, we'll be happy to address those  
24 now.

25 MEMBER WOODALL: No, I'm just going to make a

1 suggestion. You've got letters to the two libraries,  
2 to Flagstaff City, and then to, I believe, Winslow, and  
3 you have, I think, another one, and you asked them to  
4 be displayed through Friday, September 20th, 2019.  
5 Since, in fact, it will be the Arizona Corporation  
6 Commission that will make a determination on this, is  
7 there some reason why you could not make a request that  
8 it be displayed after the date of our hearing?

9 MR. ACKEN: Mr. Chair, Committee Member  
10 Woodall, there's no reason, that I'm aware of, that we  
11 could not do that. And we will make that request and  
12 ask that it remain there through what we would  
13 anticipate the time period for the Commission's review.

14 MEMBER WOODALL: Well, I'm not suggesting  
15 that this is going to be a hot item to check out. But  
16 I just think that since it's not really over 'til it's  
17 over, it might be helpful if the public had more access  
18 to it. Thank you for making that commitment.

19 CHMN. CHENAL: Any other questions from the  
20 Committee?

21 (No response.)

22 CHMN. CHENAL: All right. Let's talk about  
23 tomorrow. And for Member Gentles' edification, thank  
24 you, let's describe the process tomorrow that we have  
25 developed over a series of hearings.

1 I have sent the applicant's attorney and the  
2 Members of the Committee, my assistant has, the  
3 applicant's proposed CEC with a few number of changes  
4 that I'm proposing for discussion only. I'm not  
5 recommending that all those necessarily be adopted, but  
6 just to have those for consideration. We will mark  
7 that document as an exhibit number, whatever we end up  
8 with, okay, and that will be on the screen, and we will  
9 go through that document.

10 On the screen next to it, we will name that  
11 or give that a different -- the next exhibit number.  
12 And then we will make changes to the CEC with my  
13 proposed edits for discussion, we'll make changes and  
14 we'll vote on the language and approve it as we go  
15 through it. And when we conclude with that process, we  
16 will vote on that language, and that will become the  
17 final CEC, assuming we grant the CEC.

18 The applicant will then take that document,  
19 which will be full of track changes, and will clean it  
20 up and provide it to me and I'll sign it.

21 So as we go through the record tomorrow, we  
22 will be referring to those two exhibit numbers, so  
23 someone reading this transcript later on will know  
24 which document we're referring to. It's very  
25 complicated back and forth. Over this change and that

1 change, we'll know exactly how that -- you know, what  
2 document we're referring to. And that's something  
3 we've done in the last four or five cases, and I think  
4 it works -- it works well.

5 So if any of the Committee members have  
6 additional thoughts on conditions, tightening the  
7 language, what have you, tomorrow is when we will  
8 consider those.

9 MEMBER WOODALL: Mr. Chairman, when was this  
10 e-mailed to us? When was your form of the Certificate  
11 e-mailed to us? Because I don't seem to find it here,  
12 and I don't know --

13 MEMBER HAMWAY: Oh, I got it.

14 MEMBER WOODALL: When did you get it?

15 MEMBER HAMWAY: Right when we came back from  
16 the tour, 1:02 p.m.

17 MEMBER WOODALL: Okay. I don't seem to have.  
18 Is there a possibility that we could have printed  
19 copies of that?

20 CHMN. CHENAL: Could I ask the applicant,  
21 because they have the ability to --

22 MEMBER HAMWAY: It was from Yvonne Rossmell.

23 MEMBER WOODALL: I don't see it in mine,  
24 so...

25 MEMBER HAMWAY: Oh, okay. Sorry. Let me see

1 if you were copied.

2 MEMBER WOODALL: It would be helpful if I  
3 could have...

4 MEMBER HAMWAY: Let me forward it to you.

5 MEMBER WOODALL: Thank you. It would be  
6 helpful if I could have a printed copy before our  
7 deliberations, because I don't work very well from a  
8 tiny screen.

9 MR. ACKEN: Mr. Chairman, Member Woodall,  
10 yes, we can make copies. I have a copy of it, and so  
11 we can make printed copies, certainly to have enough  
12 for all Committee Members that wish to have them.

13 MEMBER WOODALL: I would like to have one to  
14 put under my pillow tonight. So could you arrange for  
15 that, Mr. Acken? I will be eternally grateful. Thank  
16 you.

17 MR. ACKEN: We will do so.

18 CHMN. CHENAL: Yes, Member Noland.

19 MEMBER NOLAND: One other thing. Your  
20 Exhibit A that was with the proposed CEC, I'd rather  
21 see something like your CVN 12 that really lays out the  
22 corridors. I'm still questioning the relevance of a  
23 500-foot corridor on the Substation 2. That doesn't  
24 look like 500 feet across to me. And the same with  
25 Substation 1.

1           Mark these as 500 feet, or whatever the  
2 relevance is, so we have that as an attachment to the  
3 CEC. I think you went a long way with this new  
4 exhibit, and it will be much better than what we have  
5 on the CEC proposed draft that we have.

6           MR. ACKEN: Thank you, Chairman, and Member  
7 Noland. As discussed earlier, we will be making some  
8 revisions to this. We will identify the specific panel  
9 number, and we will provide that additional information  
10 that you request and we'll mark that as another  
11 exhibit. And we will come prepared with proposed  
12 language, as well as how that could be integrated in to  
13 form a CEC.

14           CHMN. CHENAL: Member Gentles.

15           MEMBER GENTLES: Thank you, Mr. Chairman.

16           On the CVN 13 public comment summary, let's  
17 start on Page 5. It may be a procedural question.  
18 These are all comments that I see starting on Page 5  
19 from various members of the public. Were there any  
20 responses to those comments?

21           MR. ACKEN: Mr. Chairman, Member Gentles, my  
22 understanding, if you look at Table 2, the last column  
23 is identified "Comment response, see Table 1." And so  
24 this table provides the specific comment, Table 1  
25 provides the company's response, organized by topic.

1 MEMBER GENTLES: Thank you.

2 CHMN. CHENAL: Another housekeeping item.

3 Mr. Acken, I don't know when you intend to  
4 move your exhibits into evidence, but maybe now would  
5 be a good time. And I -- don't worry -- and then I  
6 have a Chairman's exhibit, which is the sign-in sheet.  
7 So why don't we go through the admission of the  
8 exhibits, and we'll make sure that's on record.

9 MR. ACKEN: Thank you for the reminder,  
10 Mr. Chairman. I was going to remind you about the  
11 Chairman's exhibit, and forgot about my own.

12 The applicant would move for the admission of  
13 CVN 1 through 13. CVN 1 is the application for a CEC  
14 docketed July 29th, 2019. CVN 2 are the testimony  
15 slides of Jeffrey Nemeth and Terrance Unrein. CVN 3,  
16 testimony slides of Allen Graber and David Barr. CVN 4  
17 is the American Wind Energy Association Arizona  
18 analysis. CVN 5 is the Winslow Mayor letter. CVN 6 is  
19 the public notice documentation. CVN 7 is the Winslow  
20 Chamber of Commerce letter. CVN 8 is the ACC letter.  
21 CVN 9 is the map of the corridor that was in the  
22 vicinity of the switching station options. CVN 10 is  
23 our proposed Certificate of Environmental  
24 Compatibility. CVN 11 was the route tour. CVN 12  
25 was the proposed additional corridor descriptions

1 showing the panels that we will revise yet again. And  
2 then CVN 13 was the public comment summary.

3 And we will have at least one additional  
4 exhibit tomorrow that we will mark as CVN 14, which  
5 will be the revised map panel showing the corridor.

6 And then as I understand it, Mr. Chairman,  
7 the CEC that has your revisions, we can either mark it  
8 as an applicant exhibit, which would be CVN 15 and 16.

9 CHMN. CHENAL: 15, yes, and then 16 will be  
10 the working document that we create through the  
11 deliberative process. And when we finish that process,  
12 that will become, then, CVN 16, if that number is the  
13 right one.

14 Okay. The applicant has offered CVN 1  
15 through CVN 13. Are there any objections?

16 (No response.)

17 CHMN. CHENAL: There being no objections,  
18 those exhibits are admitted into evidence.

19 (Exhibits CVN 1 through CVN 13 were admitted  
20 into evidence.)

21 CHMN. CHENAL: I have, and I will provide the  
22 court reporter the original -- Well, I'm not sure.  
23 Maybe I'll provide the original to the court reporter,  
24 but I'm sure a copy will need to be made for the  
25 applicant. But it's the welcome sign-in sheet that has

1 names and contact information of the people that spoke  
2 last night, so I'm going to offer that.

3 Are there any objections?

4 (No response.)

5 CHMN. CHENAL: I once asked that of a former  
6 Commissioner, former Judge Foreman. What happens if  
7 the Chair offers an exhibit and someone makes an  
8 objection? And he said, well, you just overrule them.

9 (Laughter.)

10 CHMN. CHENAL: So Chairman's 1 is admitted  
11 with no objection.

12 (Exhibit CHMN 1 was admitted into evidence.)

13 CHMN. CHENAL: Okay. So tomorrow we'll start  
14 at 9:00 a.m. with either the closing -- or, the closing  
15 remarks of the applicant, closing statement. There may  
16 be some additional questions the Committee may have,  
17 and we may have additional testimony if something comes  
18 up, or the applicant may decide they wish to provide a  
19 little more testimony on a topic, and we can certainly  
20 do that and then have the closing argument, if you  
21 will.

22 And then we'll begin the deliberative process  
23 in the manner that we've already described. But as has  
24 generally been the case, questions come up during the  
25 course of that process, and so we would like the

1 panels' witnesses obviously to be available to answer  
2 questions as it comes up.

3 I expect that I will have one more condition,  
4 which will simply provide that the -- to propose that  
5 the applicant will comply with the matter set forth in  
6 the letter from Arizona Game and Fish that Member  
7 Woodall referred to earlier. I think the applicant has  
8 said they would agree to do it; I'd just like to have a  
9 condition that says that. And I don't know that I'll  
10 have anything further than that, but others may have  
11 items.

12 So that's the process we'll follow tomorrow,  
13 and I'm confident we'll be able to complete the process  
14 by noon. So does the Committee have any questions,  
15 thoughts, concerns at this point?

16 (No response.)

17 CHMN. CHENAL: Does the applicant have any  
18 thoughts or matters we should discuss before we adjourn  
19 this evening?

20 MR. ACKEN: Mr. Chairman, I think the only  
21 comment, and this is something I'm certain we will  
22 discuss it tomorrow, conditions that are specific to  
23 the Wind Farm, we might have some concern, and we'd  
24 like to discuss further with the Committee the  
25 appropriateness of those. But, again, we can deal with

1 that on a case-by-case basis tomorrow.

2 We thank you for your time and attention.

3 CHMN. CHENAL: And that's a very fair  
4 comment. Nothing jumps out at me. But if that's a  
5 concern tomorrow, we certainly have to be careful about  
6 the extent of the jurisdiction of the Committee. So  
7 we'll be sensitive to that and we'll respect that.

8 I can't think of anything further. So if  
9 there's nothing further, we'll adjourn for the evening  
10 and we'll see everyone tomorrow. Thank you.

11 (The hearing recessed at 4:33 p.m.)

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1 STATE OF ARIZONA )

2 COUNTY OF MARICOPA )

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