

1 BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LS-264  
2 LINE SITING COMMITTEE

3  
4 IN THE MATTER OF THE APPLICATION OF )DOCKET NO.  
5 ARIZONA PUBLIC SERVICE COMPANY, IN )L-00000D-22-0253  
6 CONFORMANCE WITH THE REQUIREMENTS )00209  
7 OF ARIZONA REVISED STATUTES 40-360, )  
8 ET SEQ., FOR A CERTIFICATE OF )  
9 ENVIRONMENTAL COMPATIBILITY )  
10 AUTHORIZING THE RUNWAY TRANSMISSION )  
11 PROJECT, WHICH CONSISTS OF A NEW, )  
12 APPROXIMATELY 4.5-MILE-LONG, ) LS CASE NO. 209  
13 DOUBLE-CIRCUIT 230KV TRANSMISSION )  
14 LINE CONNECTING THE EXISTING AND )  
15 PLANNED EXPANSION OF THE APS )  
16 230KV RUNWAY SUBSTATION LOCATED )  
17 NORTHEAST OF WEST BROADWAY ROAD )  
18 AND SOUTH BULLARD, A VENUE IN )  
19 GOODYEAR, MARICOPA COUNTY, ARIZONA )  
20 TO THE EXISTING APS WHITE TANKS TO ) EVIDENTIARY HEARING  
21 WEST PHOENIX 230KV TRANSMISSION )  
22 LINE. )  
23 )

14 At: Avondale, Arizona

15 Date: November 14, 2022

16 Filed: November 18, 2022

17

18 REPORTER'S TRANSCRIPT OF PROCEEDINGS

19 VOLUME I  
20 (Pages 1 through 141)

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1 BE IT REMEMBERED that the above-entitled and  
2 numbered matter came on regularly to be heard before the  
3 Arizona Power Plant and Transmission Line Siting  
4 Committee at the Hilton Garden Inn, 11460 West Hilton  
5 Way, Avondale, Arizona, commencing at 1:00 p.m. on the  
6 14th day of November, 2022.

7  
8 BEFORE: PAUL A. KATZ, Chairman

9 LEONARD DRAGO, Department of Environmental Quality  
10 DAVID FRENCH, Arizona Department of Water Resources  
11 JAMES PALMER, Agriculture Interests  
12 RICK GRINNELL, Counties  
(via videoconference)  
13 MARY HAMWAY, Cities and Towns  
14 MARGARET "TOBY" LITTLE, The Public  
(via videoconference)

15 APPEARANCES:

16 For the Applicant:

17 SNELL & WILMER, LLP  
18 Mr. J. Matthew Derstine  
19 400 East Van Buren Street, Suite 1900  
20 Phoenix, Arizona 85004

21 and

22 PINNACLE WEST CAPITAL CORPORATION  
23 Ms. Jennifer Spina  
24 Associate General Counsel  
25 400 North 5th Street  
Phoenix, Arizona 85004

1 CHMN KATZ: Good afternoon, everybody. This is  
2 the time we have set and we can go on the record, but  
3 this is the time we have set for the hearing -- excuse  
4 me -- CEC Number 209, the APS Runway Project. And as  
5 soon as he's near his microphone, I will ask counsel who  
6 is representing the applicant if he would to please  
7 identify himself for the record.

8 MR. DERSTINE: Good afternoon, Mr. Chairman,  
9 members of the Committee. Matt Derstine, Snell & Wilmer  
10 appearing on behalf of Arizona Public Service, appearing  
11 with me is Gourjia Odisho, also from Snell & Wilmer.

12 CHMN KATZ: Okay. And I just want to make sure  
13 that we identify everybody that's present on the  
14 Committee.

15 MR. DERSTINE: Mr. Chairman?

16 CHMN KATZ: Yes.

17 MR. DERSTINE: We also have counsel from APS, I  
18 think, who would like to state her appearance.

19 CHMN KATZ: Okay. And that is?

20 MS. SPINA: Good afternoon. My name is Jennifer  
21 Spina; I'm associate general counsel for Arizona Public  
22 Service Company. I'm here today standing in for my  
23 colleague, Linda Benally, who will be representing the  
24 company in this proceeding along with Mr. Derstine.

25 CHMN KATZ: Thank you very much.

1           And we'll introduce our Committee members,  
2   seated to my left.

3           MEMBER DRAGO:   Len Drago, designee for the  
4   Arizona Environmental Department.

5           MEMBER FRENCH:   David French, department's  
6   designee for the Arizona Department of Water Resources.

7           MEMBER HAMWAY:   Mary Hamway, representing cities  
8   and towns.

9           MEMBER PALMER:   Jim Palmer, representing  
10   agriculture.

11          CHMN KATZ:   And I believe we have Rick Grinnell,  
12   who is appearing virtually today and in person tomorrow,  
13   but I'll have him identify himself for the record to make  
14   sure.

15          Mr. Grinnell, are you with us?

16          AV TECHNICIAN:   Mr. Chairman?

17          CHMN KATZ:   Yes.

18          AV TECHNICIAN:   I saw him earlier.   It just  
19   looks like he is not in the room at the moment.

20          CHMN KATZ:   Okay.   Is Member Little present by  
21   phone as well or virtually?

22          MEMBER LITTLE:   Yes.

23          CHMN KATZ:   And welcome --

24          MEMBER LITTLE:   Toby Little representing the  
25   public.

1 CHMN KATZ: And good to see you. And I know  
2 that Rick Grinnell is tuned in, but I guess away from his  
3 desk. But anyhow, we'll just take care of a few more  
4 preliminary matters.

5 It's my understanding that we're going to have a  
6 public session or public input at 5:30 this evening, and  
7 I don't know that we're going to have a lot of people  
8 showing up. And tomorrow morning, I just would ask you,  
9 Mr. Derstine, whether or not you're recommending a tour  
10 and why. I know what the answer is, but I just want to  
11 make a record of it, and see what the position of the  
12 Committee is.

13 MR. DERSTINE: Yes, thank you, Mr. Chairman.

14 We do have a tour prepared; we'll take up most  
15 of the morning. But our view is that this is a case that  
16 lends itself to having a tour. So the line is  
17 approximately five miles, it crosses from the Agua Fria  
18 River heading west across Avondale and Goodyear, and I  
19 think this is the kind of case in which the Committee  
20 would benefit from a route tour.

21 CHMN KATZ: Okay. And I do understand that  
22 Mr. Grinnell is coming to town. He's in Tucson today,  
23 but coming up here to take the tour tomorrow and will be  
24 with us Tuesday and Wednesday, I believe, but do we have  
25 a motion as to whether or not we are going to take a tour

1 or not take a tour tomorrow?

2 MEMBER PALMER: Mr. Chairman, I would move that  
3 we take the tour tomorrow.

4 CHMN KATZ: Is there a second?

5 MEMBER DRAGO: Second.

6 CHMN KATZ: All in favor?

7 (A chorus of "ayes.")

8 CHMN KATZ: And I know, Member Little, you can't  
9 join us, I don't believe, but do you have any opposition  
10 to the rest of us taking a tour?

11 MEMBER LITTLE: Absolutely not.

12 CHMN KATZ: And we'll also -- we'll have a  
13 virtual tour as well for those who are appearing  
14 virtually, so --

15 MEMBER LITTLE: Right.

16 CHMN KATZ: -- anyway, we will have that tour.  
17 What would you say, 9:00 or 9:30 tomorrow? What time  
18 would you like to get that started?

19 MR. DERSTINE: I think the van is here available  
20 to start at 9:00. I think I would suggest that we meet  
21 here in the hearing room at 9:00, we'll give some  
22 background and overview to the tour route, as well as I  
23 think take a few minutes to just talk about safety along  
24 the route, how we're going to handle exiting the van at  
25 the various stops. And so after we've been on the

1 record, with that background and overview of the route  
2 tour, then I think we can then leave the hearing room and  
3 get on the bus and go about our way.

4 CHMN KATZ: Sounds good. And just make a note.  
5 And I'm assuming we don't have any intervenors. I don't  
6 have any motions or notice of intervention; is that  
7 correct?

8 MR. DERSTINE: That is correct.

9 CHMN KATZ: Just looking right here, I'm not  
10 going to ask you all the questions that I have, there  
11 aren't any matters we need to take care of prior to  
12 beginning our hearing today, are there?

13 MR. DERSTINE: No, Mr. Chairman.

14 CHMN KATZ: Okay. And what we can do is have  
15 our -- well, are we having all four of the witnesses that  
16 are seated across from you participating as a panel or  
17 one at a time?

18 MR. DERSTINE: They will be -- our preference  
19 would be to swear them in as a panel, and then they'll go  
20 through their general background and introduction and  
21 then we'll -- each witness is sponsoring topics or  
22 subject matter experts in their own right and are  
23 sponsoring certain portions of our case, but they're also  
24 available to weigh in and answer questions as they might  
25 arise. So our preference would be to have them sworn as

1 a panel, please.

2 CHMN KATZ: Okay. I didn't pull out the witness  
3 statements. My eyes aren't good enough. I know a few of  
4 the participants, but you'll have them identify  
5 themselves and maybe spell their last names, because I  
6 can't read them from here. But anyway --

7 MR. DERSTINE: Would you like me to do that now,  
8 Mr. Chairman?

9 CHMN KATZ: Or we can have them --

10 MR. DERSTINE: When they're ready to go?

11 CHMN KATZ: When we're ready to go. We'll just  
12 ask the panel, and you don't all have to agree, but do  
13 you all wish to have an oath or an affirmation prior to  
14 giving your testimony?

15 MR. WILEY: Oath for me.

16 MR. EICH: An oath for me.

17 MR. PETRY: An affirmation, please.

18 MS. CASTEEL: An affirmation, please.

19 CHMN KATZ: Okay. Well, I will have the two who  
20 wish to take the oath, if you would, raise your right  
21 hands.

22 (David Wiley and Stephen Eich, were duly sworn  
23 by the Chairman.)

24 CHMN KATZ: Okay. And the other two folks, if  
25 you would raise your right hands and answer affirmatively

1 or however you feel appropriate.

2 (Devin Petry and Victoria Casteel, were duly  
3 affirmed by the Chairman.)

4 CHMN KATZ: Okay. And we can begin. I don't  
5 know if you were going to be projecting their names and  
6 their backgrounds up on the screen.

7 MR. DERSTINE: We will be.

8 CHMN KATZ: Okay.

9 MR. DERSTINE: And, with your permission, I have  
10 a short opening statement.

11 CHMN KATZ: That's fine.

12 MR. DERSTINE: Famous last words.

13 CHMN KATZ: Okay.

14 MR. DERSTINE: But an opening statement to give  
15 before we get started --

16 CHMN KATZ: That's fine.

17 MR. DERSTINE: -- with our panel.

18 CHMN KATZ: Uh-huh.

19 MR. DERSTINE: And I do see --

20 MEMBER GRINNELL: Mr. Chairman --

21 MR. DERSTINE: Yeah, I do see Mr. Grinnell.

22 CHMN KATZ: Yes, Mr. Grinnell.

23 MEMBER GRINNELL: I apologize. I just showed  
24 up.

25 CHMN KATZ: That's okay. You didn't miss much

1 of anything, other than the fact that we voted on taking  
2 the tour tomorrow, and everybody entered their  
3 appearances. And I noted that you were online, but were  
4 briefly away from your desk. So we're fine to go  
5 forward, you haven't missed a thing. I just affirmed and  
6 swore in our witnesses. And Mr. Derstine is going to  
7 make a brief opening statement.

8 MEMBER GRINNELL: And I will be there tomorrow  
9 for the tour.

10 CHMN KATZ: Right. You will be here tomorrow,  
11 correct?

12 MEMBER GRINNELL: Yes, sir.

13 CHMN KATZ: Yep. And we're meeting at 9:00, and  
14 we'll go for the tour slightly thereafter. But anyway,  
15 we were going to begin with Mr. Derstine making an  
16 opening statement.

17 MR. DERSTINE: Thank you, Mr. Chairman.

18 I think we all recognize that we're living in a  
19 digital age, but I don't think that we fully grasp just  
20 how much digital data we are creating, using,  
21 manipulating and storing on a day-by-day, hour-by-hour,  
22 minute-by-minute basis. In 2021, approximately 79  
23 zettabytes of data were created, used, and stored  
24 globally. That's up from the 2020 total of data creation  
25 of 40 zettabytes and the projections are, at this pace,

1 that globally we'll create somewhere around 175  
2 zettabytes of data by 2025. A zettabyte is the  
3 equivalent of a billion gigabytes. And to try to give  
4 some sense of what that is, my reading informs me that  
5 that's 250 billion DVDs. The data that could be stored  
6 on 250 billion DVDs is the equivalent of 1 zettabyte. So  
7 multiply that times 79, and you have a sense of the data  
8 that we have created through commerce, business, and  
9 personal use over the past year.

10 So who is creating all that data? Well,  
11 obviously business and commerce, education create a big  
12 part of that, but as individuals, we also have a hand in  
13 creating all this data. Just by example, there's 500  
14 million Tweets that go out on a daily basis, 294 billion  
15 e-mails, 4 billion gigabytes of content are added to  
16 Facebook on a daily basis, and 720,000 hours of content  
17 are added to YouTube, again, on a daily basis.

18 So where is all that data stored? Three places,  
19 to use the terminology of the industry, end points, the  
20 edge, and the core. End points, the parentheses there  
21 are the "Internet of Things," our phones, our PCs,  
22 anything, any device that has memory stores some of that  
23 79 zettabytes of data. More data is being stored at the  
24 edge. Those are servers, businesses, and educational  
25 institutions, hospitals, et cetera, all have servers that

1 support their business function, so some of the data is  
2 stored there.

3 But the vast bulk and majority of the data are  
4 stored at the core, which are data centers. There are  
5 different types of data centers: enterprise, hyperscale,  
6 co-location, but data centers make up -- or are being  
7 used to store the bulk of the data.

8 And so in many ways data centers are critical to  
9 and power our modern society. Everything we access, from  
10 our phones, tablets, laptops that use cloud applications,  
11 those cloud applications live in data centers. Our  
12 e-commerce, our Amazon purchases, all our online  
13 shopping, our banking, our credit are powered by data  
14 centers. The communication platforms that got us through  
15 COVID-19, Teams and Zoom and others, are all powered and  
16 based on data center capabilities. All of our streaming  
17 of Netflix and videos, Apple TV, our social media, online  
18 gaming, again, all powered by and rely upon data centers.

19 So all those applications and uses that we rely  
20 on and use every day are driving globally data center  
21 growth, there's 7.2 million data centers throughout the  
22 world today. All different shapes and sizes and types.  
23 The fastest growing segment of the data center market are  
24 hyperscale data centers, that is defined as more than  
25 5,000 servers within that data center. Amazon,

1 Microsoft, and Google own the majority of hyperscale data  
2 centers, and they use those data centers to support their  
3 business functions. Based on my limited research and  
4 limited knowledge the largest data center is located in  
5 China, but the largest data center in the U.S. is The  
6 Switch CITADEL campus outside of Reno, Nevada. That will  
7 cover 7.2 million square feet, and at full capacity will  
8 use somewhere around 650 megawatts of power.

9           Again, data centers are -- their size is  
10 measured by the amount of power that they use and in this  
11 case the CITADEL data center is -- will utilize 650  
12 megawatts.

13           In the U.S., Phoenix is -- currently leads the  
14 U.S. in data center construction and leasing. We took  
15 over that number one spot from Northern Virginia, which  
16 had been the leading market for data center development  
17 just this year. The Phoenix market's home to over 2.6  
18 million square feet of commissioned data center space  
19 today. And demand for data center capacity in Phoenix  
20 more than tripled just in the first half of this year,  
21 and it's going to continue.

22           Within the Phoenix market, the West Valley has a  
23 high concentration of data centers that are already  
24 commissioned or being developed. APS currently serves  
25 five data center substations in the West Valley, three of

1 those data centers are served by 230kV lines that were  
2 sited by this Committee over the last couple of years.  
3 The last of those we had a case before you in February  
4 that involved the connection of 230 lines to a data  
5 center. This case is really a prime example of the  
6 concentration of data centers in the West Valley.

7           What you see on the screen to the right, the map  
8 there, shows that there's three data centers that are in  
9 different stages of development located on adjoining  
10 parcels in Goodyear and Avondale, straddling the border  
11 there. The data center that's in red, the westernmost  
12 parcel, the largest parcel, is the Microsoft Data Center,  
13 moving to the east. The light blue parcel is the Stream  
14 Data Center parcel under development. And the green one  
15 moving, again, to the right side of the screen to the  
16 east is the STACK Data Center. These three data centers  
17 at full development and build-out could require up to  
18 1,500 megawatts of energy. To give that some context,  
19 the combined load of Goodyear and Avondale is around 500  
20 megawatts for all the residential, commercial, and  
21 industrial load. So with that background, let me tell  
22 you a little more about the Runway Project.

23           This project serves several needs. It provides  
24 STACK Data Center with the energy that will be used to  
25 operate the STACK's data center operations. I think

1 they're anticipating at full build-out STACK will require  
2 somewhere around 220 megawatts of power. This project  
3 also provides the transmission redundancy to the  
4 expanding Microsoft Data Center. That -- we sited 230kV  
5 lines to serve the Runway Substation, which serves the  
6 Microsoft Data Center operations, some years ago. That  
7 substation will be expanded, and Microsoft's operations  
8 will benefit from having an additional line and the  
9 redundancy that that provides.

10 This project also allows for additional 230kV  
11 infrastructure that could be used to support data centers  
12 as they continue to develop and grow in this area.

13 So what are we asking you to give us authority  
14 to build? We're asking to construct double-circuit 230kV  
15 lines connecting the existing White Tanks-West Phoenix  
16 230kV line that runs along the Agua Fria River, and to  
17 string that line, that new double-circuit line, to the  
18 west to interconnect first at the Diamond Substation on  
19 the green parcel.

20 That new Diamond Substation will be serving the  
21 STACK Data Center operations. And then to bring that  
22 line over to the Microsoft's Runway Substation on its  
23 parcel.

24 We used an extensive public outreach program for  
25 this process -- for this project, stakeholder outreach,

1 public outreach, and engagement. I think the  
2 cornerstones of that were virtual and in-person open  
3 houses that were conducted. It's odd to see an in-person  
4 open house on the screen there, but we're finally getting  
5 back to in-person open houses. And then we utilized  
6 newsletters, newspaper ads, social media, and e-mails to  
7 publicize those virtual and in-person open houses and to  
8 get folks to learn about this project.

9           And through that outreach we gained valuable  
10 input and feedback from not only the public, but  
11 jurisdictions, agencies, and landowners in the area. And  
12 that feedback then allowed us to develop the routes that  
13 we'll be presenting in the CEC appli- -- that will be  
14 presented during the CEC application, and we're  
15 presenting during the course of this hearing.

16           So the application presents a preferred route  
17 and then four subroutes, subroutes A, B, and C are short  
18 segments that would replace a small portion of the  
19 preferred route. Those A, B, and C subroutes came  
20 forward and developed and made their way into our  
21 application primarily to give APS the flexibility to  
22 serve the data center customers, because the development  
23 of those parcels are ongoing, and it's not clear exactly  
24 where will be the best place to place the 230 lines or  
25 what the 230 lines need to avoid in the way of that data

1 center development, so those were brought forward.

2 At this point there is not a lot of strong  
3 support from those data center customers for those short  
4 subroutes, other than Subroute A, which would be -- give  
5 some flexibility to Microsoft, and its ongoing  
6 development of its parcel, but as I'll get to in a  
7 minute, we're going to cover that Subroute A through our  
8 use of the corridor for the preferred route.

9 Subroute D is an alternative to the north/south  
10 long leg of the preferred route that moves the proposed  
11 new 230kV line over onto the eastern edge of the Agua  
12 Fria River. Again, that's an alternative that we thought  
13 was worth bringing forward in the application and we  
14 noticed that out to the public to see if there is any  
15 real support to having that 230 line on the eastern edge,  
16 as opposed to more of the western orientation for where  
17 the preferred route is.

18 Again, we haven't received any real strong  
19 support for Subroute D in moving the preferred route over  
20 to the eastern edge of the Agua Fria River, but there is  
21 strong support for the preferred route. Through our  
22 extensive outreach and engagement with stakeholders, the  
23 City of Avondale and the City of Goodyear support the  
24 preferred route in the three data center centers that the  
25 line will either cross or serve, support, and have

1 submitted letters in support of the preferred route,  
2 that's STACK, Microsoft, and Stream.

3 The City of Avondale and the City of Goodyear  
4 letters of support found in the application, and the  
5 letters or e-mails from STACK, Microsoft, and Stream are  
6 in our exhibits, and we'll get to those through the  
7 course of the testimony.

8 I mentioned the corridor. We're requesting a  
9 variable width corridor, and you may -- should have in  
10 front of you this placemat, one side shows the route --  
11 the preferred route, as well as the subroutes. The other  
12 side, I think, does a nice job of showing the corridor as  
13 the corridor with changes throughout the length of the  
14 project. It varies in width from 100 to 900 feet.

15 The corridor allows for flexibility in the  
16 placement of the line on the Microsoft property. As I  
17 mentioned, you can see that, that there's a 900-foot wide  
18 section crossing the Microsoft parcel when it -- as it  
19 overlaps with the -- what will be the expanded Runway  
20 North Substation.

21 And then the other area in which the corridor is  
22 expanding out to 500 feet is at the northern end along  
23 the Agua Fria River, as it interconnects to the White  
24 Tanks-West Phoenix line, that approximately 500-foot  
25 corridor there allows us to work through the

1 interconnection to the -- to the White Tanks-West Phoenix  
2 line and to try to avoid the existing structures that are  
3 there, there's some TEP structures there for another  
4 line. And so we need some ability to engineer and work  
5 around those existing structures and interconnecting to  
6 the existing 230 line.

7 That's the case. Let me tell you a little bit  
8 how we'll present it to you. We have four witnesses, as  
9 you can see. We have two witnesses from APS, two  
10 witnesses from SWCA Environmental. Mr. David Wiley and  
11 Mr. Stephen Eich from APS, and then Devin Petry and  
12 Victoria Casteel from SWCA. They'll give you their  
13 background here in a minute. We also have the slides  
14 that we'll use to support their testimony that will be  
15 projected here in the hearing room. We also have the  
16 placemat that I just referred to, showing the preferred  
17 route, as well as the corridor.

18 And we've already touched on, at the outset of  
19 the hearing, the route tour that we propose to take  
20 tomorrow morning, and it sounds like the Committee has  
21 already voted to do that.

22 At the end of the case we'll request a CEC, ask  
23 you for authority to construct a double-circuit 230kV  
24 line on the preferred route moving along the Agua Fria  
25 River and then heading west, crossing over the --

1 interconnecting at the Diamond Substation on the STACK  
2 Data Center parcel, and then continuing on to the Runway  
3 Substation on the Microsoft parcel. We'll use steel  
4 monopoles to construct the line, and the heights of those  
5 structures will range from 115 to 195 feet.

6 That's the case. I appreciate you giving me a  
7 few minutes to give you that overview, and we look  
8 forward to presenting our case to you.

9 CHMN KATZ: And I just realized, too, I wanted  
10 to ask you questions that I probably already know the  
11 answers to, but we want to make a good record. And that  
12 is, you have provided notice to Goodyear, Avondale, and  
13 Maricopa County; is that correct?

14 MR. DERSTINE: Yes, those three agencies, both  
15 of those cities and the County are on our list of  
16 affected jurisdictions, and there are a few more that we  
17 also provided notice to, and we'll cover that through  
18 Mr. Eich's testimony.

19 CHMN KATZ: That's fine. I just wanted to make  
20 sure that they received notice.

21 MR. DERSTINE: Yes.

22 CHMN KATZ: And I believe there's a letter from  
23 the Arizona Corporation Commission approving as well; is  
24 that not correct?

25 MR. DERSTINE: Staff did submit a letter to the

1 docket for this case in response to your invitation that  
2 they do so. I think Mr. Wiley can summarize, in general,  
3 the content of that letter, but yes, Staff has indicated  
4 that there's no real -- has no real concerns with this  
5 project.

6 CHMN KATZ: And I would just ask that that be  
7 marked and offered as one of your exhibits, if it hasn't  
8 already been done so.

9 MR. DERSTINE: It's in --

10 CHMN KATZ: Other than that, I'm ready to  
11 silence myself and have the Committee begin to hear the  
12 testimony.

13 MR. DERSTINE: Thank you.

14 CHMN KATZ: And I was able to figure out the  
15 names of all of our witnesses. I think three of them  
16 are -- two or three of them are familiar, but I -- unless  
17 the court reporter needs you to have them -- she's  
18 shaking her head, Robin's saying no, we don't need to  
19 have them spell their names. But we obviously want to  
20 have you introduce them as we proceed.

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

22 Let's do that. Let's get you folks introduced  
23 to the Committee. I think we're going to start  
24 with -- well, the panel's already been sworn, so all the  
25 witnesses were ready to go and provide testimony. Let's

1 start by giving the Committee a little bit of background  
2 on yourself.

3

4 STEPHEN EICH, DAVID WILEY, DEVIN PETRY,  
5 VICTORIA CASTEEL,  
6 called as witnesses as a panel on behalf of Applicant,  
7 having been previously affirmed or sworn by the Chairman  
8 to speak the truth and nothing but the truth, were  
9 examined and testified as follows:

10

11 DIRECT EXAMINATION

12 BY MR. DERSTINE:

13 Q. Mr. Eich, let's start with you, tell the  
14 Committee a little bit about yourself, please?

15 A. (MR. EICH) My name is Stephen Eich; I am the  
16 project manager for this project and am a transmission  
17 and facility siting consultant with APS. My business  
18 address is 2121 West Cheryl Drive, Phoenix, Arizona  
19 85021.

20 Q. You've got your professional experience on the  
21 slide there, but why don't you give us the high points,  
22 please.

23 A. (MR. EICH) Sure. I have 16 years of experience  
24 here at APS, four years as a survey instrument operator  
25 and one year as a service coordinator, both within the

1 customer construction side of the company. I was a  
2 right-of-way agent for six years, acquiring land rights,  
3 such as easements and deeds on private properties, as  
4 well as rights-of-way on government lands, such as  
5 federal, state, and local jurisdictions for our  
6 transmission structures.

7 I have spent the past five years as a  
8 transmission and facility siting consultant and am a  
9 senior right-of-way professional in the International  
10 Right-of-Way Association. And I have testified in one  
11 previous case, Line Siting Case 193.

12 Q. Do you want to touch on your education as well?

13 A. (MR. EICH) I --

14 Q. Did you cover that? Oh, there it is, sorry.

15 A. (MR. EICH) No, just the business experience is  
16 all I was going to touch on.

17 Q. Okay. All right. You were the project -- the  
18 project manager for the Runway Project, correct?

19 A. (MR. EICH) Yes.

20 Q. Okay. And do you have any corrections to  
21 APS -- the CEC application, which is marked as APS  
22 Exhibit 1?

23 A. (MR. EICH) No corrections.

24 Q. Okay. Then, Mr. Eich, you also will utilize  
25 some of the slides that are -- PowerPoint slides that are

1 marked as APS Exhibit 6, that's our collection of content  
2 slides and the maps that will be shown on the left and  
3 the right screen here in the hearing room. I think your  
4 testimony will cover route development, the proposed  
5 routes, the corridor, structures, notice and public  
6 outreach, did I -- do I have all of that correct?

7 A. (MR. EICH) Yes, that's correct.

8 Q. Okay. And do you have any corrections to APS  
9 Exhibit 6, that is the hearing slides on those topics?

10 A. (MR. EICH) No.

11 Q. All right. And so the information in APS  
12 Exhibit 6, on the areas that you will cover in your  
13 testimony, is true and correct to the best of your  
14 knowledge?

15 A. (MR. EICH) Yes.

16 Q. Okay. Thank you.

17 Mr. Wiley, why don't you state your name and  
18 address for the record?

19 A. (MR. WILEY) David Wiley. My business address is  
20 2121 West Cheryl Drive, Phoenix, Arizona 85021.

21 Q. Okay. And you are involved with -- you're the  
22 supervisor of transmission planning and engineering; is  
23 that right?

24 A. (MR. WILEY) Yes, that's correct.

25 Q. And in that role you were involved with the

1 planning and engineering of the Runway Project?

2 A. (MR. WILEY) Yes, correct.

3 Q. Using your slides however -- as deep as you want  
4 to go using your education and experience slides, why  
5 don't you give the Committee a little bit of background  
6 on yourself.

7 A. (MR. WILEY) I received my bachelor's of science  
8 in electrical engineering from Arizona State University  
9 in 2013. I then received my master's of science in  
10 electrical engineering, with an emphasis in power systems  
11 in 2014, also from Arizona State.

12 I've been working with APS for eight years. For  
13 the first four years I was an engineer in the  
14 transmission planning and engineering group or a group  
15 that directly worked with the transmission planning  
16 group. For the last four years, I've been the supervisor  
17 at the transmission planning and engineering department.

18 I do have my professional engineering license  
19 for the state of Arizona. As far as industry experience,  
20 I am currently the chair of West Connects Planning and  
21 Management Committee, which is a regional planning entity  
22 covering about seven states in the West.

23 On a more local level, I was the APS subject  
24 matter expert in the Eleventh and Twelfth Biennial  
25 Transmission Assessments. I previously testified in Line

1 Siting cases 193 and 198. And I am past chapter chair of  
2 the Phoenix IEEE Power and Energy Society.

3 Q. All right. Thank you for that.

4 Mr. Wiley, you also had a hand in preparing the  
5 hearing room slides that the Committee will see over the  
6 next couple days that are marked as APS Exhibit 6. It's  
7 my recollection that you're going to cover the APS  
8 service territory and transmission system and the purpose  
9 and need for the Runway Project, APS's 10-year plan  
10 filing. You'll also give the Committee an overview in  
11 some of the key elements of the project, as well as  
12 you'll speak to the noise and communication impacts of  
13 the project, if any.

14 Did I leave anything out?

15 A. (MR. WILEY) No, you did not.

16 Q. Okay. Do you have any corrections to the slides  
17 and the information the Committee will see on APS  
18 Exhibit 6 on those topics?

19 A. (MR. WILEY) No, I do not.

20 Q. Okay. So the information contained in the  
21 slides that you'll use to support your testimony is true  
22 and correct, to the best of your knowledge?

23 A. (MR. WILEY) Yes, it is.

24 Q. Mr. Petry, start by stating your name and  
25 address for the record, please.

1       A.       (MR. PETRY) Certainly. My name is Devin Petry,  
2       and my business address is 20 East Thomas Road,  
3       Suite 1700, Phoenix, Arizona 85012.

4       Q.       Mr. Petry, you're a senior environmental project  
5       manager for SWCA Environmental Consultants. Why don't  
6       you reintroduce yourself. I think you're fresh off a  
7       round of appearing before the Committee last week, but  
8       remind the Committee a little bit about your background.

9       A.       (MR. PETRY) Sure. I have a bachelor of arts  
10      degree in geography from the University of Arizona, with  
11      approximately 14 years of environmental planning and  
12      permitting experience. I have served as the  
13      environmental project manager and contribute to the  
14      studies of many projects before the Siting Committee  
15      previously. And, actually, have been the project manager  
16      and testified for approximately eight cases prior to  
17      today.

18      Q.       Is this a good time to maybe give the Committee  
19      a little background information on SWCA?

20      A.       (MR. PETRY) Sure. SWCA is an environmental  
21      consulting firm. We are based here in Phoenix, Arizona,  
22      and provide comprehensive environmental planning,  
23      permitting -- excuse me -- regulatory compliance, natural  
24      and cultural resources management, and other  
25      environmental services, again, here in Arizona and across

1 the United States.

2 In this case, SWCA was retained by Arizona  
3 Public Service, or APS, to assist with the public  
4 involvement, assist with the preparation of the  
5 application for a CEC, and perform the environmental  
6 resource studies needed to support that application.

7 We completed field studies, gathered available  
8 data, completed the environmental resource assessments  
9 for Exhibits A through H of the CEC application, and  
10 again, we assisted in the public involvement activities,  
11 as summarized in Exhibit J of the CEC application.

12 We also completed a siting study for the project  
13 that can be found in Exhibit B. I, in tandem with  
14 Ms. Casteel, managed and oversaw these efforts.

15 Q. Okay. You also had a hand and assisted in  
16 preparing a number of the slides that were used to  
17 support your testimony in this case. Do you want to  
18 identify the topics that you'll cover through your  
19 testimony?

20 A. (MR. PETRY) Certainly. I will cover the virtual  
21 tour. We will show a virtual tour of the preferred  
22 route. I will also provide the Committee with  
23 information on the scenic areas, historic sites,  
24 structures, and archaeological sites, as identified in  
25 Exhibit E of the application, as well as the visual

1 resources identified in Exhibit E, and also a component  
2 of Exhibit G, of the CEC application.

3 I will also provide my opinion based on these  
4 findings regarding the overall environmental  
5 compatibility of the project.

6 Q. You've reviewed APS Exhibit 6; do you have any  
7 corrections to the slides on the topics that you'll be  
8 covering in your testimony?

9 A. (MR. PETRY) I have and I do not.

10 Q. Okay. So the information contained in those  
11 slides, those portions of APS 6 are true and correct to  
12 the best of your knowledge?

13 A. (MR. PETRY) Yes.

14 Q. Thank you.

15 Ms. Casteel, just state your name and address  
16 for the record.

17 A. (MS. CASTEEL) My name is Victoria Casteel. My  
18 business address is 20 East Thomas Road, Suite 1700,  
19 Phoenix, Arizona 85012.

20 Q. Your slide -- your background slide indicates  
21 you're an environmental planner and project manager for  
22 SWCA. Why don't you go through a little bit more of your  
23 witness background, your education and experience?

24 A. (MS. CASTEEL) I have a bachelor of science in  
25 environmental and water resource economics from the

1 University of Arizona. I have about 15 years of  
2 experience in environmental consulting. I've managed and  
3 supported a wide variety of projects that included  
4 biological, cultural, hydrological, visual, and land use  
5 impact assessments, as well as numerous projects with  
6 public outreach and involvement. I have worked on a  
7 multitude of different resource studies, permitting  
8 processes similar to that of the CEC process.

9 Q. Okay. You, as well, were involved in and had a  
10 hand in preparing the slides that we'll be showing to the  
11 Committee and that you'll be using to support your  
12 testimony. Do you want to identify the topics that  
13 you'll identify in your testimony, please?

14 A. (MS. CASTEEL) Yes. I will be covering the  
15 siting study and report, which is included as Exhibit B  
16 of the application, the existing and future land uses,  
17 which are covered in Exhibits A and B of the application.  
18 Biological resources in Exhibit C and D, and recreation  
19 in Exhibit F. I will also provide my opinion based on  
20 these findings regarding the overall environmental  
21 compatibility of the project.

22 Q. All right. Do you have any corrections to the  
23 slides that you'll use to support your testimony on those  
24 topics?

25 A. (MS. CASTEEL) No, I do not.

1 Q. The information on the slides that you'll show  
2 and share with the Committee are true and correct, to the  
3 best of your knowledge?

4 A. (MS. CASTEEL) Yes.

5 Q. Thank you.

6 So that -- with that background and our panel of  
7 witnesses, Mr. Wiley, we're going to start with you. And  
8 I think you're going to start us off with an overview of  
9 APS, its service territory, and its transmission system?

10 A. (MR. WILEY) Yes, certainly.

11 APS has been serving Arizona for over 125 years.  
12 We serve about 1.3 million customers and reached an  
13 all-time peak demand of approximately 7,700 megawatts on  
14 July 30th, 2020. Our infrastructure consists of nearly  
15 500 substations, roughly 300,000 transformers, and more  
16 than 550,000 poles and structures.

17 We have approximately 6,000 miles of  
18 transmission lines, 11,000 miles of overhead distribution  
19 lines, and 22,000 miles of underground cable. APS serves  
20 11 of Arizona's 15 counties, covering a service territory  
21 of approximately 35,000 square miles.

22 If we look on the map on the right-hand side of  
23 the room, you'll see the APS service territory as  
24 outlined in white. We cover the areas near Holbrook and  
25 Navajo County, Flagstaff, on up to the Grand Canyon in

1 Coconino County; Prescott and the Verde Valley area in  
2 Yavapai County; the areas south and east of Parker, in  
3 La Paz County; Yuma, in Yuma County; Casa Grande and the  
4 surrounding areas in Pinal County, as well as the  
5 southern portion of Cochise County near Douglas.

6 If we zoom on into this map, this is a zoomed-in  
7 look at the Phoenix metro area, you'll see that we serve  
8 about half of Phoenix metro, including the downtown  
9 Phoenix area, the northern portion of Phoenix metro, as  
10 well as the western portion of the Phoenix metro area.  
11 This project area is denoted by the yellow star in the  
12 Avondale/Goodyear area.

13 Q. Can you bring us down and give us a little more  
14 detail in terms of that project area that surrounds the  
15 star, as shown on the right screen?

16 A. (MR. WILEY) Sure.

17 We'll transition to this planning map. To  
18 orient you on this map, we have the I-10 running  
19 east/west towards the bottom of the screen. And the I-17  
20 running north/south towards the middle of the screen.  
21 The red lines represent planned facilities and the black  
22 lines represent existing infrastructure. Serving the  
23 Southwest Valley are multiple substations, first is the  
24 500/230 substation, which is Rudd. We have three 230 to  
25 69kV stations, serving the greater area. These are the

1 Freedom, Palm Valley, and White Tank substations.

2 Again, zooming in a little bit closer to the  
3 project area, we have some of the same facilities, the  
4 Rudd 500/230 substation, the Freedom, Palm Valley, and  
5 White Tanks, 230 to 69 substations. Again, we have the  
6 I-10 running east/west and the 303 and the Loop 101  
7 running north/south.

8 In addition to those bulk substations, we have  
9 10 additional substations that are 69 to 12kV serving the  
10 distribution in the area. These are noted as the  
11 triangles on the map. In addition to those 10 serving  
12 the greater area, we have five substations currently  
13 serving the data centers in the vicinity.

14 Of the five, two are currently on a 230kV  
15 network. These are the Runway and Strata substations,  
16 and we have three other data center substations currently  
17 served on the 69kV network that will be transitioned to  
18 the 230kV, as the data center operations expand. These  
19 are the Three Rivers, Goodyear, and Broadway substations.

20 Q. In my opening I indicated that we had sited  
21 230kV lines to serve three data centers. Are you able  
22 to -- I gather that some of those are still being served  
23 at the 69kV level, but as you indicated, would transition  
24 to 230. Can you point those out?

25 A. (MR. WILEY) Certainly.

1           The Broadway Substation was currently sited, but  
2   it's now on the 69kV network, but will transition to 230.  
3   Likewise, the Goodyear Substation and the Three Rivers  
4   substations have previously been sited, but have not yet  
5   fully transitioned to the 230kV network.

6       Q.     Thank you. Let me transition you just briefly  
7   to something so I can check the box as a requirement for  
8   filing a CEC application. We're required to include any  
9   projects that are 115kV level or above, and there's a  
10   10-year plan filing. Was a 10-year plan filing done for  
11   the Runway Project?

12       A.     (MR. WILEY) Yes, it was. This project was first  
13   included in a supplemental filing that APS filed on April  
14   16th, 2021. It was also included in a subsequent filing  
15   on January 31st, 2022.

16       Q.     All right. Thank you for that.

17           CHMN KATZ: I just have one question. The  
18   substations to be constructed for the data centers, are  
19   they part of this CEC application or is that something  
20   that APS is doing independently?

21           MR. DERSTINE: You know, we certainly pulled  
22   them out and described them. The Diamond Substation is a  
23   planned future substation on the STACK Data Center  
24   parcel. The Runway Substation is an existing substation,  
25   and that will be expanded as part of this project. That

1 is the interconnection of the line over onto the  
2 Microsoft Data Center site, so we're not formally  
3 including the substations in the CEC application, but we  
4 certainly, as we do in all these cases, identify where  
5 they are and where the interconnection points are for  
6 this project.

7 CHMN KATZ: Thank you.

8 BY MR. DERSTINE:

9 Q. Mr. Wiley, maybe this is a good point to kind of  
10 start at the early conception and planning phase of the  
11 project and give the Committee kind of an overview of  
12 what the project is intended to accomplish.

13 A. (MR. WILEY) Certainly.

14 The objective of this project is to extend the  
15 230kV lines from the existing corridor, first to the  
16 Diamond Substation, which will serve the STACK  
17 Infrastructure Data Center, and then continue on from the  
18 Diamond Substation to the Runway Substation, which is an  
19 existing 230kV substation, which is interconnected with  
20 the rest of the APS 230kV network.

21 Q. And the -- so the slide on the right showing the  
22 yellow band is kind of the concept of we have to get from  
23 the existing White Tanks line over to provide service to  
24 the Diamond Substation, and then bring that line over  
25 to -- to Runway. So that's the overall concept and

1 intent of this project, correct?

2 A. (MR. WILEY) Yes, that's correct.

3 Q. Okay. Why don't you give us a little more  
4 detail on the purpose and the elements of the project?

5 A. (MR. WILEY) This project meets several different  
6 needs, all associated with serving data centers in the  
7 vicinity. So Phoenix has been seeing an influx of data  
8 centers in the recent years and this is for different  
9 reasons. Some of the reasons include the availability of  
10 land, the lack of natural disasters, low electricity  
11 rates, and a robust power grid.

12 With these data centers bring a high level of  
13 energy demand, as well as a high need for electrical  
14 reliability. The typical requirements in the data center  
15 industry rates that have 99.999 percent reliability,  
16 which is often referred to as the five nines of  
17 reliability in the data center world.

18 So the first thing that this project will do is  
19 to bring in 230kV service to the Diamond Substation. The  
20 Diamond Substation will be serving the STACK  
21 Infrastructure Data Center, which at full build-out is  
22 expected to be approximately 220 megawatts. We will do  
23 that by cutting into the existing White Tanks to West  
24 Phoenix 230kv line and extending the 230kV infrastructure  
25 to the Diamond Substation.

1           From there we'll be continuing to extend the  
2   230kV infrastructure from the Diamond Substation through  
3   these data center parcels and terminating into the Runway  
4   Substation. The Runway Substation is on Microsoft  
5   property serving one of the Microsoft's data centers.  
6   This is an existing substation, but Microsoft is looking  
7   to expand its data center operations, and therefore, is  
8   needing to expand their substation.

9           This new 230kV line will be terminating into the  
10   expanded substation. At full build-out, we expect the  
11   overall Microsoft Data Center to be approximately 590  
12   megawatts. The connection from the Diamond Substation to  
13   the Runway Substation adds additional redundancy for both  
14   the STACK Infrastructure's data center, as well as  
15   Microsoft's data center.

16           For example, if for some reason, the 230kV line  
17   extending from the existing corridor to Diamond is lost  
18   for any reason, the STACK Data Center would have no  
19   interruption of service. This is because there's going  
20   to be a continuous feed via the Runway Substation.

21           Likewise, if one of the two feeds that currently  
22   serve the Runway Substation are lost, we have the Runway  
23   Substation maintained in a full network into APS. What  
24   this means is there will not be a single feed serving the  
25   Runway Substation under a single contingency event.

1 Feeding radially or by a single feed could lead the  
2 transmission system to have electrical reliability  
3 issues. So with the loss of any one of these three  
4 corridors feeding the Runway Substation, we have another  
5 two feeds resulting in a network system.

6 And, lastly, I'd like to point out that there's  
7 been increased interest in this portion of our system to  
8 serve data centers, between these three different data  
9 centers here, Microsoft in red, Stream in blue, and STACK  
10 in green, we have received requests of up to 1,500  
11 megawatts.

12 To put that into perspective, the APS service  
13 territory covering the Avondale and Goodyear area is  
14 about 500 megawatts. So within this one square mile,  
15 we're looking to have about 1,500 megawatts of load, so  
16 three times that of Avondale and Goodyear today.

17 MEMBER GRINNELL: Mr. Chairman?

18 CHMN KATZ: Yes, Member Grinnell.

19 MEMBER GRINNELL: I can see the list of  
20 information, but I do not see the maps that are being  
21 displayed to the Committee on the screens.

22 I do have a hard copy. I just want to make sure  
23 I'm looking at the right things.

24 CHMN KATZ: On the hard copy, on the southwest  
25 end, we have red, blue, and green, which are the either

1 existing or to-be-built data centers.

2 MR. DERSTINE: Just to -- Mr. Chairman, just to  
3 make sure, to see if we're having an issue with the  
4 virtual hearing feed, Member Little, are you able to see  
5 both the left and right screen?

6 MEMBER LITTLE: I am not. I just see the one  
7 screen also. I've been using the map that is in the  
8 introduction to the CEC, the hard copy.

9 CHMN KATZ: We're checking with the IT people to  
10 see what we can do.

11 MR. DERSTINE: Okay. I was checking with our AV  
12 team. Apparently we're only able to project one screen  
13 at a time, but what we're trying to do is toggle back and  
14 forth as we -- if we're moving on to discussion of the  
15 map or aspects of the map, we'll try to toggle back to  
16 that portion. But we're not able to project both at the  
17 same time, apparently.

18 Do I have that right?

19 CHMN KATZ: Let me ask you, Member Grinnell,  
20 would you like to have the map projected and just have a  
21 quick retrace of the route of the lines?

22 MEMBER GRINNELL: Well, just to -- that would  
23 allow me to feel more confident in the material -- in the  
24 material that he's speaking to. I don't know about  
25 Ms. Little.

1 CHMN KATZ: Okay. Can you both now see the map?

2 MEMBER GRINNELL: Yes.

3 MEMBER LITTLE: Yes.

4 CHMN KATZ: Okay. Well, we can take a brief  
5 retour of the route that will --

6 MEMBER GRINNELL: That's all right. I've got it  
7 here. I just want to make sure I'm looking at the same  
8 materials as what is being addressed.

9 CHMN KATZ: That's fine. I don't think we have  
10 need to review that. You see the blue lines --

11 MEMBER GRINNELL: Yes.

12 CHMN KATZ: -- and that's the proposed route.

13 MEMBER LITTLE: This is the same map that's in  
14 the introduction to the CEC.

15 CHMN KATZ: That's correct.

16 MEMBER GRINNELL: Correct. That's what I was  
17 following. I just wanted to confirm more than anything.

18 CHMN KATZ: I appreciate that. We can go ahead.

19 MEMBER GRINNELL: All right. Thank you.

20 BY MR. DERSTINE:

21 Q. Let me go back a second and make sure I  
22 understand, Mr. Wiley. So each one of these three data  
23 centers, the Microsoft, Stream, and STACK, they are being  
24 served or will be served by their own dedicated  
25 substation.

1 Do I have that right?

2 A. (MR. WILEY) Yes. They will each have a -- their  
3 own substation on-site.

4 Q. Okay. And that's because of the load that's  
5 required to serve the data center, they need to have  
6 their own substation facilities there on the -- on the  
7 site, you can't just run the line into some sort of a  
8 feeder for these data centers, they need a substation?

9 A. (MR. WILEY) Yes, that's correct.

10 Q. Okay. And each of the substations that are  
11 being developed or will be developed to serve these three  
12 data centers, are on their own private land?

13 A. (MR. WILEY) Yes, that's correct.

14 Q. All right. Can you -- you used -- at the outset  
15 of your testimony kind of talked about some of the  
16 transmission facilities and substations that are in the  
17 area. Is there value in going back a little bit and  
18 showing the Committee what the infrastructure that's  
19 currently in place for these data centers?

20 A. (MR. WILEY) Yes, certainly.

21 Today APS has entered into agreements with STACK  
22 Infrastructure to begin the engineering design efforts  
23 associated with the Diamond Substation. For the Runway  
24 Substation, which is serving the Microsoft Data Center,  
25 that was energized at the 230kV level in April of this

1 year. That particular project was initially cut in by  
2 the Palm Valley to Rudd 230kV line. So the existing  
3 Runway Substation is fed by two different 230kV lines.  
4 To continue to meet the demands of the Microsoft Data  
5 Center as it expands, the Runway Substation will have to  
6 expand or extend its infrastructure. Today the  
7 infrastructure is located on the right side of this  
8 rendering here, which is the south end of the substation.

9 To meet the growing demands of the data center,  
10 additional 230kV infrastructure will be added at the  
11 north end. There will be 230kV lines connecting both  
12 the north and south 230kV yards. Additionally, the  
13 project -- the 230 lines associated with this project  
14 will be terminating into the north end of the yard.

15 Q. And it shows the estimated in-service date will  
16 be around 2025?

17 A. (MR. WILEY) Yes, that's correct. With  
18 construction planned to begin in 2024.

19 Q. Okay. All right. So you kind of have given us  
20 the overview and the status of the development of the  
21 data center sites in terms of their transmission and  
22 substation development, do you want to, before we -- I  
23 think Mr. Petry's going to cover the virtual tour for  
24 the -- for the project and show that to the Committee,  
25 but maybe let's lay a bit of a foundation and context for

1 that virtual tour and show what are the key elements of  
2 the project.

3 A. (MR. WILEY) Yes, certainly. And again, we'll be  
4 using the same map, as referenced previously. I also  
5 want to point out that this can be found on the placemat  
6 in this Exhibit APS-1, Figure 1.

7 Q. APS-1 is the application, and you're referring  
8 to Figure 1 within the application itself?

9 A. (MR. WILEY) Yes, that's correct.

10 Q. Okay.

11 A. (MR. WILEY) So we've looked at this map a few  
12 times now, but I want to give a little more context prior  
13 to jumping into the virtual tour. You'll see on the  
14 left-hand side here is the Phoenix-Goodyear Airport and  
15 just south of that is MC85, headed up to the northeast to  
16 become Buckeye Road. We have lower Buckeye Road running  
17 east/west, which goes just to the north side of these  
18 data center properties. And we have Broadway Road  
19 running east/west along the south side of the data center  
20 properties. We have Litchfield Road running north/south,  
21 which goes between the Stream and STACK parcels. And  
22 then to the east of this we have the Agua Fria River.

23 Shown in blue is the preferred route. You see  
24 that the route is made up of several individual links.  
25 So if we start at the west end at Runway Substation,

1 we'll be extending 230kV lines to the north end of the  
2 expanded substation, and continuing north through the  
3 Microsoft property to just south of the MC85. From here  
4 we'll continue to the northeast, where we hit the Lower  
5 Buckeye Road, and we'll turn east at that point.

6           From here we'll travel east until we hit  
7 Litchfield Road, at which point it will turn south.  
8 We'll head south on the western portion of the STACK  
9 Infrastructure property until we meet the point just on  
10 the south side of the property, and then we'll turn and  
11 head to the east. And this location is where we will  
12 look to cut into the Diamond Substation to serve that  
13 data center.

14           From here we'll continue east following a water  
15 pipeline until we reach the Agua Fria River bottom, as  
16 well as an existing 69kV line. From this location we'll  
17 follow that existing alignment of the 69kV to the  
18 northeast and eventually connect back into the existing  
19 230kV corridor where the West Phoenix to White Tanks  
20 230kV line is located.

21           Also shown on this map are a couple of  
22 subroutes. You'll see Subroute A is shown in orange and  
23 black. You'll see that toward the north end of the  
24 Microsoft property. This will be an alternative to link  
25 1260. You also see Subroute B in yellow and black. This

1 is on, generally, the north side of the Stream Data  
2 Center property on the north side of the road.

3           You'll see Subroute C in red and black, it's an  
4 alternative coming here and kind of coming on the middle,  
5 maybe top quarter or so, of the Stream property. This is  
6 an alternative to 310 and 430 south. And, lastly, we  
7 have Subroute D, which is shown in green and black. This  
8 particular subroute goes all the way to the east end of  
9 the Agua Fria River bottom, and is an alternative to link  
10 185 and 190. These different subroutes would be a  
11 replacement for a portion of the preferred route.

12       Q.     Okay. Anything you want the Committee to  
13 understand or know before I turn it over to Mr. Petry to  
14 show us the virtual tour?

15       A.     (MR. WILEY) No, I think that's it.

16       Q.     Okay. Mr. Petry, you've -- SWCA prepared a  
17 virtual tour of the project. Does the virtual tour  
18 proceed in the same manner as Mr. Wiley described it,  
19 starting on the west of the Runway Substation and  
20 continue over to the east and the interconnection point  
21 to the existing line?

22       A.     (MR. PETRY) Yes, generally. We -- excuse me --  
23 we will be able to give just sort of a general overview  
24 of the project region through that virtual tour. And  
25 we'll zoom in to some of the areas where we have actually

1 developed visual simulations for the project. We'll zoom  
2 in to those areas, show what that view with the project  
3 superimposed would look like from about five locations  
4 around the project area. As the Committee has seen  
5 previously, these will be views of the simulations  
6 themselves. We will, in later testimony, be able to  
7 provide some further context with those visual  
8 simulations and what they look like relative to the  
9 existing condition today. But, Mr. Derstine, yes, to  
10 answer your question, we will generally follow the  
11 outline that Mr. Wiley just provided.

12 Q. Okay. And the visual simulations you just  
13 mentioned, those are the simulations that the Committee  
14 could find. I think they're included in Exhibit G to the  
15 application, which is APS-1; is that right?

16 A. (MR. PETRY) Yes.

17 Q. Okay. Well, with that --

18 MEMBER LITTLE: Mr. Chairman?

19 CHMN KATZ: Yes, Member Little.

20 MEMBER LITTLE: I have just a general question.  
21 I'm a little confused about the alternatives. It sounds  
22 like the first three, A, B, and C, are all mostly have to  
23 do with design -- with the customer's designs; is that  
24 correct? So are you requesting a -- the CEC include  
25 those?

1 MR. DERSTINE: It's a good question, Member  
2 Little, and thank you for that.

3 I think, as I touched on briefly in my opening,  
4 those subroutes, A, B, and C, you are correct were  
5 developed and brought forward to give APS the flexibility  
6 to work with those data center customers and routing the  
7 line across their parcels. As it's turned out, we're  
8 looking to address Subroute A through the corridor that  
9 we're seeking, but we're not asking for a route that's  
10 modified by any of the other subroutes.

11 And as I indicated, Subroute A is kind of  
12 subsumed into the wider corridor that we're seeking that  
13 crosses the Microsoft parcel. So the short answer is no,  
14 we're not asking for approval of the subroutes. They  
15 came forward as part of our planning process in an  
16 attempt to address the development concerns and/or a  
17 preference for placing the line on the more eastern edge  
18 of the Agua Fria River. But our ask of the Committee  
19 will be to approve the preferred route, along with the  
20 corridor.

21 MEMBER LITTLE: Thank you. That just confirms  
22 what I thought. Thanks.

23 MR. DERSTINE: Okay. All right.

24 Q. Mr. Petry?

25 A. (MR. PETRY) All right. I'll ask the Peaks team

1 to please cue up our virtual tour.

2 Perfect. Thank you.

3 (Virtual tour plays.)

4 A. (MR. PETRY) Okay. Let's pause here for just a  
5 moment, just to orient the Committee with what we're  
6 seeing on the screen now. Again, this does match with  
7 what you can find in the placemats. To orient the  
8 Committee with what we see here, in the center of the  
9 screen would be the Microsoft site called out in text  
10 here, right in the center of the screen. To the left,  
11 you can see the Runway Substation indicated; this is the  
12 location where the existing Runway Substation is located,  
13 and will be expanded to the north.

14 To the east you see the Stream site and the  
15 STACK sites, the Microsoft, Stream and STACK sites from  
16 west to east are all neighbors, and this is the area and  
17 where this data center development is occurring and  
18 around which the transmission line is being proposed.

19 In purple you can see the proposed corridor  
20 running through the Agua Fria riverbed, and then through  
21 portions of those data center sites. To the north of  
22 those sites, you can see the Phoenix-Goodyear Airport,  
23 agricultural facilities to the south, as well as the  
24 extensive existing transmission facilities further to the  
25 south. This includes 500, 230, 345, and 69kV

1 infrastructure.

2 Let's go ahead and move forward.

3 MEMBER GRINNELL: Mr. Chairman?

4 CHMN KATZ: Yes, Mr. Grinnell.

5 MEMBER GRINNELL: I hate to be an annoyance  
6 here, but where is Microsoft currently getting its power  
7 now?

8 MR. PETRY: So, Member Grinnell, I can address  
9 that question. Currently Microsoft is being served from  
10 the existing portion of the Runway Substation, located at  
11 the -- at the very southern edge of the purple corridor  
12 you see now. On that map that we referred to earlier,  
13 the Microsoft site is shown in red and the southern --  
14 sort of southwestern portion of that Microsoft site is  
15 where the Runway Substation is located currently, and  
16 where Microsoft is being served from.

17 MEMBER GRINNELL: And then the adjacent data  
18 centers to the east --

19 MR. PETRY: Yes.

20 MEMBER GRINNELL: -- the one in the middle, is  
21 that currently receiving power or is that still in  
22 build-out process?

23 MR. PETRY: Well, both. It is being developed.  
24 That would be the Stream Data Center -- Data Center site,  
25 which, in the current view, is located in the center

1 here. That is being served by the Broadway Substation  
2 located on the southern edge of that site along  
3 Broadway -- Broadway Road and Litchfield Road.

4 MEMBER GRINNELL: Okay. And then the proposed  
5 substa- -- or the proposed data center immediately  
6 adjacent to the east of that, that's the new project; is  
7 that correct?

8 MR. PETRY: That is a new project. It is not  
9 currently active. There is no substation there  
10 presently.

11 MEMBER GRINNELL: Okay. So all this extended  
12 utility lines, is this just to enable that data center to  
13 be built and powered up? It seems like there's an awful  
14 lot of -- and I'm sorry, I read this stuff and I'm still  
15 trying to figure -- you've got two pretty good data  
16 centers and you have, of the smaller one that isn't built  
17 yet, and we're asking for a whole lot of additional power  
18 lines to facilitate this new data center, and maybe add  
19 additional support to the other two.

20 Am I getting this right?

21 MR. PETRY: Yes. Based on my understanding of  
22 Mr. Wiley's testimony previously regarding the project  
23 purpose and need, I think you nailed it.

24 MEMBER GRINNELL: All right. Just seems to be a  
25 little excessive for just this one portion of the smaller

1 data center, that's all.

2 CHMN KATZ: It was my understanding that the  
3 total full operational three data centers will require  
4 about 1,500 megawatts of power and they only have  
5 available right now about 500.

6 MR. WILEY: Yes, Chairman. The expectation is  
7 that the data centers at full build-out could reach up to  
8 1,500 megawatts. Again, that's an immense amount of  
9 power, about three times that of the Avondale and  
10 Goodyear areas today, being concentrated in this  
11 one square mile. 220 megawatts does require 230kV  
12 service. That's much larger than we typically serve at a  
13 lower voltage.

14 It is, again, a large amount of power, and then,  
15 as mentioned earlier, the continued 230 extension from  
16 the Diamond Substation to the Runway Sub- -- Runway  
17 Substation adds additional redundancy for both of -- both  
18 of these customers.

19 MEMBER GRINNELL: So it is redundant. It's not  
20 actually -- okay. It's just more of a backup as it is  
21 primary; is that a fair statement, when you say  
22 "redundant"?

23 MR. WILEY: To serve the Diamond Substation, we  
24 do need the new infrastructure coming down through the  
25 Agua Fria River bottom. The additional portion that's

1 needed for redundancy is generally all located on the  
2 data center property. And, again, that's needed to  
3 support the data centers and to meet their reliability  
4 needs.

5 MEMBER GRINNELL: And each data center will have  
6 its own substation?

7 MR. WILEY: Yes, that is correct.

8 MEMBER GRINNELL: Okay. Thank you.

9 MR. DERSTINE: And, Member Grinnell, if I can  
10 add, hopefully add, without creating more confusion about  
11 it. The feed to the Diamond Substation, that is, the new  
12 230 -- double-circuit 230kV line which will -- that you  
13 see in purple on the screen and that Mr. Petry will give  
14 us more detail about, that double-circuit 230kV line is  
15 new, and is needed as the primary and the only source of  
16 power to the STACK Data Center, which will be served out  
17 of the Diamond Substation and its projected load of  
18 225 megawatts can only be served from a 230kV system.

19 The redundant portion, the reliability portion  
20 is then bringing that line over from Diamond on the STACK  
21 property on the eastern edge over to the Runway  
22 Substation. That gives that larger Microsoft Data  
23 Center, that is in the process of expanding, additional  
24 redundancy and reliability for its operations, given its  
25 size.

1           So one is primary and one is -- the secondary  
2   need is for Microsoft to have this redundant, this  
3   additional support.

4           MEMBER GRINNELL:   Okay.

5           MR. DERSTINE:   Did that help?

6           MEMBER GRINNELL:   Yup.

7           MR. DERSTINE:   Okay.

8           MR. PETRY:   Great.   Thank you.

9           From here we can go ahead and move forward with  
10   the video.   So as we zoom in here, I'll pause for just  
11   one more second and orient the Committee with the legend  
12   in the upper right-hand corner of your screen.   This  
13   outlines, again, the Microsoft, Stream, and STACK sites  
14   located in the center of the screen, as well as the  
15   proposed corridor identified in purple.   Within that  
16   proposed corridor is the preferred route.   As we zoom in  
17   you'll also be able to see the subroutes, A, B, C, and D  
18   throughout the project study area as well.

19           Also of note within the Agua Fria River  
20   corridor, you can see existing transmission  
21   infrastructure.   This includes 230, 345, and 69kV  
22   transmission infrastructure, and it is this portion  
23   within the Agua Fria riverbed that the project proposes  
24   to rebuild, essentially be co-located with the existing  
25   69kV facilities present there today.

1           Let's go ahead and move forward. So we'll zoom  
2   in a little closer here and you can see the white boxes  
3   are the proposed data center buildings. These are  
4   overlaid onto the project area. You can also see the  
5   proposed corridor and preferred route indicated in purple  
6   and blue respectively. The light blue indicates existing  
7   230kV infrastructure. You can see here, we're panning to  
8   the east, and we're looking at the northern portion of  
9   the Runway Substation expansion area.

10           As we pan further to the south, you can see the  
11   preferred route and Subroute A, all contained within the  
12   proposed corridor. This location would run parallel with  
13   Maricopa County 85. From here we will zoom in to KOP 2,  
14   this is Key Observation Point 2. And this is a location  
15   identified as Exhibit G-9, along Maricopa County 85,  
16   where you can see the proposed route, along with future  
17   data center facilities simulated into this image. We're  
18   looking to the southwest from this location.

19           Then we'll zoom out and we are looking along  
20   Lower Buckeye Road to the south. And at this location  
21   we're going to zoom in to our next Key Observation Point,  
22   this is KOP 3. And this represents some of the  
23   residential views from this particular location, and  
24   again, from here you can see the future data center  
25   buildings simulated along with portions of the preferred

1 route. We're looking southwest from this location.

2 We are now traveling south on Litchfield Road.  
3 To the left you'll see the STACK Infrastructure, and to  
4 the right the Stream infrastructure. And we're looking  
5 at KOP 1, this is the Key Observation Point and photo  
6 simulation completed near where we'll have one of the  
7 route tour stops tomorrow adjacent to a small cluster of  
8 residences to the right. And we're looking to the  
9 northeast at this location, and we're looking to the  
10 north here, and see where the proposed route extends on  
11 the east side of Litchfield Road, and then would extend  
12 to the east along this water pipeline alignment that  
13 Mr. Wiley mentioned previously. This would lead us right  
14 down into the Agua Fria River.

15 MEMBER HAMWAY: Mr. Chairman?

16 CHMN KATZ: Yes.

17 MEMBER HAMWAY: Mr. Petry, how close is the  
18 nearest resident?

19 MR. PETRY: Approximately 300 feet. And this is  
20 the location of pretty much the nearest location from the  
21 preferred route to a residential -- a residential use.

22 CHMN KATZ: Would you point out where the  
23 residential area is?

24 MR. PETRY: I sure can.

25 In this view, it's a little difficult as I -- as

1 we zoom back out, I can point that out or I can also  
2 point that out on one of the project maps, perhaps, when  
3 we finish this route tour I can point those areas out  
4 specifically. I think from this view here in a moment  
5 I'll be able to -- well, we'll go back and show you that  
6 here in a moment.

7 But in this location we're extending the east,  
8 and now we're looking at the northeast in the riverbed,  
9 and you can see the existing lattice structures, as well  
10 as the existing -- well, this actually removes the  
11 existing 69kV facilities that exist today, as this  
12 represents the co-location of both the 230 and 69  
13 facilities.

14 We're now at the location of Key Observation  
15 Point 4, which is located on the eastern side of the Agua  
16 Fria River riverbed. This is near a developing  
17 residential area and recreational area. And we're  
18 looking to the west and across the riverbed, you can make  
19 out existing transmission structures that include both  
20 the lattice structures that exist today, as well as the  
21 proposed 230/69 facilities. Again, the existing 69 line  
22 that exists in that riverbed today would be rebuilt and  
23 contain both 230 and 69kV conductors.

24 From here we'll zoom back out for just a moment.  
25 From this view, again, what you can see in the aerial

1 perspective is the green line here, that is Subroute D,  
2 that fourth subroute located on the eastern side of the  
3 riverbed.

4 We'll now zoom in to Key Observation Point 5,  
5 KOP 5, this is at the northern portion of the project  
6 area. And this is the location, again, basically the  
7 northern terminus of the preferred route where the  
8 project would be cut into the existing 230kV  
9 infrastructure there today. You can see the existing  
10 230kV infrastructure, as well as the existing lattice  
11 structures.

12 This is the view from a recreational trail and  
13 off of the edge of a residential development to the  
14 north, to your right of the image here. You can also see  
15 some of the structures with the Union Pacific Railroad  
16 overpass bridge over the Agua Fria River.

17 We can now zoom back out for a moment and get  
18 this good aerial perspective. And from this perspective,  
19 I can point out the location of those residential areas.  
20 We'll get into this a little bit further in our later  
21 testimony as well, particularly related to land use, but  
22 I'll be happy to point those areas out now in just a  
23 moment, if we can pause.

24 Perfect.

25 So the areas where the nearest homes will be

1 located, the location that I indicated earlier will be  
2 along Litchfield Road right before the preferred route  
3 would extend east to west along that existing water  
4 pipeline alignment. But south of here there's a cluster  
5 of approximately three to four residences located south  
6 of the STACK Infrastructure site, and east of the Stream  
7 infrastructure site, again, along Litchfield Road. And  
8 this is a location approximately 300 feet away from the  
9 preferred route.

10 Again, the preferred route in this location and  
11 in all locations on the western portion where it is  
12 proposed on private land, it is proposed on data center  
13 properties. The portion within the riverbed is, again,  
14 largely along the existing 69kV alignment, and there are  
15 some public and private parcels in those locations too.

16 The other location where nearest residences  
17 might be found would be -- I just showed you the KOP 5,  
18 Key Observation Point 5 -- was developed from this  
19 location up here, and these are some residences along the  
20 riverbed that would view the project through some of that  
21 existing transmission infrastructure.

22 Another location of nearest residences would be  
23 this location here, right to the west of the Agua Fria  
24 River. And this is a location, again, where those  
25 residences are adjacent to the existing 345 and 69kV

1 infrastructure that runs through the riverbed. And,  
2 ultimately, those locations and one other location here  
3 run along Lower Buckeye is where the nearest residents  
4 would be.

5 At this particular location, residents would be  
6 catty-corner -- or kitty-corner, depending on where you  
7 come from in the country and how you might say that --  
8 but they're across and approximately 500 feet or more  
9 away from the preferred route at that location as well.

10 MEMBER GRINNELL: Mr. Chairman?

11 CHMN KATZ: Yes, Member Grinnell.

12 MEMBER GRINNELL: I'm -- so I'm reading a  
13 comment by the Maricopa County Department of  
14 Transportation regarding the corridors on the Agua Fria  
15 River MC85, Lower Buckeye Road, and then Lower  
16 Buckeye-Litchfield arterial, and it required anywhere  
17 from 130 feet to 335 feet of right-of-way currently.

18 How does that match up with your existing  
19 corridor request?

20 MR. PETRY: Yes. Member Grinnell, thank you for  
21 that question.

22 Maricopa County Department of Transportation did  
23 provide a letter to the docket, wherein they outlined  
24 some of their right-of-way expectations or requirements  
25 for various roadways proximal to the preferred route.

1           We reviewed that letter and those rights-of-ways  
2   against our preferred route and the development of the  
3   proposed corridor. And, you know, as designed, the  
4   preferred route avoids those rights-of-way that were  
5   specified by MCDOT. And those locations primarily were  
6   along this portion of Lower Buckeye Road and Maricopa  
7   County 85, MC85, or Main Street in this location south of  
8   the airport.

9           And, again, in those locations, the preferred  
10   route is proposed on the data center properties outside  
11   of those existing rights-of-way associated with those  
12   roadways. The proposed corridor itself does extend out a  
13   short distance in some locations away from the preferred  
14   route, the center line itself.

15           And in those locations there are some areas  
16   where aerial easements would be necessary, as part of  
17   that right-of-way or that corridor, but we do not expect  
18   any impact to Maricopa County Department of  
19   Transportation's rights-of-way.

20           MEMBER GRINNELL: You also have the railroad  
21   that runs parallel to the -- you've got your corridor,  
22   the MC85, and then the railroad. It seems to be in a  
23   very compartmentalized area. Is there any other  
24   potential barriers in there, gas, water, anything of  
25   these natures that might be infringed upon?

1           MR. PETRY: Member Grinnell, in our review, we  
2 identified no other conflicts, such as those you  
3 described. As we move forward with the process, should  
4 this be approved by the Committee, one of the things APS  
5 does is go a little further in perfecting that  
6 right-of-way and identifying any potential conflicts with  
7 those types of existing facilities.

8           But what you will find, as part of Ms. Casteel's  
9 testimony, is that we at SWCA, as well as APS, confer it  
10 throughout a very thorough siting study to identify this  
11 preferred route and these subroutes, which include the  
12 analysis of many, many opportunities and links that were  
13 developed as a result of those opportunities in order to  
14 limit or prevent just those types of conflicts that you  
15 described.

16           What we found in this area, actually, was one of  
17 the biggest constraints, of course, is the airport,  
18 located right to the north and west of Maricopa County  
19 85. As Ms. Casteel will explain further in her  
20 testimony, when we do these studies we look for existing  
21 linear facilities to site adjacent to. We consider those  
22 great opportunities for siting these types of  
23 developments, such that they don't create new disturbance  
24 or additional disturbance.

25           And so what we found here is that siting

1 adjacent to Maricopa County 85, as well as the railroad,  
2 outside of any potential areas of conflict with the  
3 airport worked really well, and we found this to be a  
4 favorable location for siting.

5 MEMBER GRINNELL: Is there any additional or is  
6 there any, I guess, crossover between utility lines  
7 currently existing and then the proposed new ones?

8 MR. PETRY: Yes. Yes. There are some locations  
9 where we may have crossover existing, primarily  
10 distribution lines, that lower voltage subtransmission or  
11 distribution voltage lines, where the proposed route or  
12 preferred route would cross over.

13 MEMBER GRINNELL: And would the height of the  
14 preferred route -- excuse me -- poles, for lack of a  
15 better word, would they be significantly higher than the  
16 current ones since they -- or is it something -- I guess  
17 is there going to be enough differential and distance  
18 between the two crossover areas?

19 MR. PETRY: Yeah, the -- I can't answer that  
20 directly in terms of what would be a significant  
21 difference. I think the range of potential structure  
22 types that we have provided, maximum height of 195 feet,  
23 those structures would, of course, fit within that range.  
24 I would say that they're not going to be much different  
25 than what you would see from some of the existing 230kV

1 infrastructure further south, particularly it's a little  
2 out of this field of view. But further south along  
3 Broadway Road, where there are existing crossings of  
4 transmission facilities down in those locations. So  
5 those heights would fit in with the existing  
6 infrastructure in the region, and at this location in  
7 particular.

8 MEMBER GRINNELL: Well, my questions are not  
9 designed to cause an issue. It may be to preempt any  
10 particular concerns that might come up down the road,  
11 because I don't want to have to look at this and then all  
12 of a sudden say, oops, we forgot to look at these things.  
13 Thank you.

14 MR. PETRY: Thank you.

15 BY MR. DERSTINE:

16 Q. Mr. Petry, following up on Member Grinnell's  
17 question, that letter from Maricopa County Department of  
18 Transportation is included in our exhibit binder as  
19 APS-20. That letter, dated October 25, 2022, indicates  
20 that MCDOT has previously expressed concern regarding  
21 impact to future roadway widening due to utility  
22 conflicts and repeats that concern with this project.  
23 And above that it identifies those three segments of  
24 where the project is in proximity or adjacent to existing  
25 roadways.

1 I want to just make sure I understand. So with  
2 regard to the segment of MC85 at the Agua Fria River,  
3 where the letter says that the right-of-way fluctuates  
4 between 335 feet, is there any -- do you anticipate any  
5 conflict with this project and the right-of-way of MC85  
6 at the Agua Fria River?

7 A. (MR. PETRY) No.

8 Q. And why is that?

9 A. (MR. PETRY) This will be a location where the  
10 project will be crossing MC85 aurally.

11 Q. Okay. So it won't be -- we aren't proposing to  
12 place the -- any structures within the road right-of-way,  
13 we'll be crossing it?

14 A. (MR. PETRY) Not to my knowledge, no.

15 Q. And then the other segment of road, MC85 from  
16 Lower Buckeye Road to Bullard where the right-of-way is  
17 currently 170 feet, where is that?

18 A. (MR. PETRY) That would be this portion right  
19 south of Phoenix-Goodyear Airport.

20 Q. Okay.

21 A. (MR. PETRY) North of the Microsoft parcel.

22 Q. And I think you indicated that what we're  
23 proposing is to not put any structures within the road  
24 right-of-way along that segment of MC85, the proposed  
25 line will be sited and constructed on Microsoft's

1 property; is that right?

2 A. (MR. PETRY) Yes.

3 Q. And as to the last piece of road segment, Lower  
4 Buckeye Road and Litchfield Road, which the letter,  
5 APS-20, identifies are arterial roadways requiring  
6 130 feet of right-of-way, where is that on your map?

7 A. (MR. PETRY) Right in this location.

8 Q. Okay. And do you anticipate that this project  
9 will conflict with the 130 feet of right-of-way along  
10 those arterial roadways?

11 A. (MR. PETRY) No -- excuse me -- no, I do not.  
12 The project has proposed that the preferred route will  
13 cross Litchfield Road and the northern portion here,  
14 right south of lower Buckeye, and would extend south on  
15 the east side of Litchfield Road, within the STACK Data  
16 Center parcel.

17 Q. So any structures will be within the private  
18 land owned by STACK?

19 A. (MR. PETRY) Yes.

20 Q. Okay. All right. Thanks for covering that.

21 And thank you for your question, Member  
22 Grinnell.

23 The one thing that you mentioned, and it -- it  
24 hadn't really sunk in with me, oftentimes as things do,  
25 it takes me a while. But the entire run from north to

1 south within the Agua Fria River bottom, that will be  
2 co-located with an existing 69kV line; is that correct?

3 A. (MR. PETRY) That is correct. And also would be  
4 adjacent to existing 345kV line.

5 Q. And so the residential areas that you identified  
6 that are in some proximity to that leg of the proposed  
7 preferred route, those homeowners are already viewing an  
8 existing 69 and a 345kV line that are constructed and  
9 existing today within the river?

10 A. (MR. PETRY) Yes.

11 Q. All right.

12 CHMN KATZ: And I think we've been going about  
13 an hour and a half. I think we'll take about a 15-minute  
14 break. I have about 2:35, maybe about 2:50 or -- plus or  
15 minus a couple minutes we'll get started again.

16 MR. DERSTINE: That's great. Thank you.

17 CHMN KATZ: Okay.

18 (Recessed from 2:35 p.m. until 2:55 p.m.)

19 CHMN KATZ: I think everybody is ready. If not,  
20 please get yourself situated so we can resume our  
21 hearing. It's about five minutes to 3:00, and we'll  
22 probably run until about 4:30, plus or minus a few  
23 minutes.

24 Whenever you're ready, Mr. Derstine.

25 MR. DERSTINE: Thank you, Mr. Chairman.

1 Q. Mr. Petry, you covered the proximity of the  
2 preferred route to residential development, homes along  
3 the route. That was one of the questions that came up on  
4 the tour.

5 Were there other questions that we need to  
6 circle back to and address? Is there anything else that  
7 we missed?

8 A. (MR. PETRY) Nothing on my mind, Mr. Derstine,  
9 unless the Committee members have any follow-up questions  
10 following the virtual tour.

11 CHMN KATZ: Okay. Anyone?

12 You may proceed either with Mr. Petry or  
13 whomever we're going to hear from next.

14 BY MR. DERSTINE:

15 Q. And was there anything you wanted to add in  
16 terms of the simulation or what we saw?

17 A. (MR. PETRY) No, I don't think so. In terms of  
18 the simulations that we shared specifically, we'll go  
19 into those in a little more detail with the further  
20 testimony that's yet to come with regard to virtual --  
21 or, excuse me, visual resources.

22 Q. Okay. And looking ahead to the actual route  
23 tour that we plan to take tomorrow morning, can you just  
24 give us a little bit of an understanding of how much of  
25 the line we'll be able to see on that route tour? I know

1 you're going to have a separate map for that.

2 A. (MR. PETRY) Yes. We will have a separate map  
3 for that. On that route tour we have five stops  
4 identified that will take us to locations close to the  
5 existing Runway Substation. We'll be able to see that  
6 Runway Substation expansion area. We'll have a few stops  
7 that will give us an overview of the three data center  
8 sites, as well as locations proximal to a couple of the  
9 key observation points, the points where we developed  
10 photo simulations.

11 We'll have a couple stops that will give us an  
12 overview of the Agua Fria River corridor so we can look  
13 down into that existing transmission infrastructure that  
14 would be used to co-locate the preferred route. And  
15 we'll end with a stop very close to the northern terminus  
16 of the project, up here along Buckeye Road, near the  
17 railroad crossing at that location there.

18 So it will really be designed to get an overview  
19 of the project area, the study area, and a glimpse where  
20 aspects of the preferred route might be in closer  
21 proximity to some of the land uses.

22 Q. Okay. Thank you for that.

23 A. (MR. PETRY) You bet.

24 Q. All right. Ms. Casteel, you're going to take us  
25 through the process that was used to develop the

1 preferred route and the subroutes. There is a siting  
2 report that's found in the -- in the CEC application, I  
3 think it's Exhibit B to APS-1, which is the CEC  
4 application, but why don't you take us through the  
5 process and what was used for, I guess, developing the,  
6 ultimately, the preferred route and the subroutes, but  
7 kind of the early stages of that process and how it  
8 worked.

9 A. (MS. CASTEEL) Yes. So the siting process was  
10 summarized in the Environmental and Siting Process  
11 Summary Report, and that is included as Exhibit B of the  
12 application. And we'll refer to that as "the siting  
13 report."

14 The siting report summarizes the preliminary  
15 environmental review and siting efforts completed for the  
16 project, and that includes establishing the preliminary  
17 siting area, identifying preliminary links, performing a  
18 detailed link analysis, and then developing routes.

19 Q. You're going to start us off with showing the  
20 Committee that preliminary siting area and how those  
21 preliminary links were developed at that early stage,  
22 right?

23 A. (MS. CASTEEL) Yes. So the preliminary siting  
24 area is founded by McDowell Road and Palm Lane on the  
25 north, Avondale Boulevard on the east, Southern Avenue on

1 the south, and Sarival Avenue on the west side. It's  
2 the -- the siting area is the geographic boundary for  
3 consideration of potential lengths and routes. And it  
4 was designed to be large enough to identify a reasonable  
5 range of opportunities, while limited to a reasonable  
6 size to minimize any really long, complex, costly, or  
7 impactful alternatives. It's approximately 30 square  
8 miles and includes City of Goodyear, City of Avondale,  
9 and Maricopa County jurisdiction.

10 To identify the opportunities in and constraints  
11 during this process, we evaluated existing and future  
12 land uses and visually sensitive areas that may be more  
13 or less accommodating to a transmission line. Areas that  
14 are less accommodating which may include highly sensitive  
15 areas that prefer to be avoided, if possible. Those are  
16 considered constraints. The constraints are shown on  
17 this figure here in red, and include, among other things,  
18 residential areas.

19 And you can see a large residential area here  
20 and here on the east side of the river, as well as the  
21 Phoenix-Goodyear Airport. And that's here in this big  
22 block of red. Areas that would be better for  
23 accommodating a transmission line were considered  
24 opportunities. And opportunities in this siting area are  
25 identified in these blue hatched areas and include

1 existing transportation and utility corridors.

2           So through this process we identified over 220  
3 preliminary links, each link is a discrete segment that,  
4 when added together with other links, can be used to form  
5 a complete transmission line route. They were developed  
6 based on the opportunities and constraints analysis, so  
7 we tried to favor areas of high opportunity, and avoid  
8 areas of higher constraint, trying to take advantage of  
9 large existing transmission corridors, and data center  
10 properties, while trying to avoid frontage of residential  
11 and other sensitive areas.

12       Q.     Okay. So you came up with these over 200 links  
13 and then my understanding is kind of the next step was to  
14 further analyze all those 200-some links and try to come  
15 down to a more manageable number of links or maybe links  
16 that were better suited to developing the routes for the  
17 project; is that right?

18       A.     (MS. CASTEEL) Yes. So from there we conducted  
19 our detailed link analysis, and we assessed each link for  
20 environmental factors, including land use and visual  
21 sensitivities, and worked with APS to review the  
22 engineering right-of-way construction and maintenance  
23 factors for each link, to make sure that the links that  
24 were identified were compatible with a transmission line  
25 siting. The links were then ranked for each of those

1 categories, and then given an overall compatibility  
2 ranking. The rankings are on a scale of 1 to 5, with 1  
3 being the most compatible. And those are shown here in  
4 green. And 5 being the least compatible, and those are  
5 shown in the dark red here. Links that had an overall  
6 compatibility of 5 were eliminated from further  
7 consideration, and links that were isolated after that  
8 initial elimination of links were also eliminated.

9           So, for example, there were some links along  
10 I-10 that were maybe rated a 2 or 3, and those ended up  
11 dropping off because the links adjacent were eliminated  
12 with a score of 5, and so those were links to nowhere,  
13 and they were also eliminated as a consequential  
14 elimination.

15           And then to support that, we also considered  
16 stakeholder input in this link elimination process,  
17 specifically there was stakeholder input from City of  
18 Avondale with preferences for avoiding residential and  
19 recreational areas, in particular the Festival Fields  
20 Park and the residential areas just on the north side of  
21 Lower Buckeye Road, and trying to meet the airport  
22 clearance requirements as well. And the links that were  
23 not eliminated were retained for the next phase of route  
24 development.

25       Q.     I think Mr. Eich is going to take us from here

1 in terms of the route development, I guess that detailed  
2 analysis that you just took us through. I -- I guess I  
3 wasn't aware of that, that it was such an incremental and  
4 very kind of scholarly analysis of opportunities and  
5 constraints to develop routes. I kind of just assumed  
6 you took out a magic marker and drew a line across major  
7 roads and got us from A to B. So thank you for that.

8 Mr. Eich, Ms. Casteel just took us through  
9 the -- the early link analysis, and the siting study that  
10 was performed. Why don't you now move us forward in  
11 terms of how we got to the routes that were presented in  
12 the application?

13 A. (MR. EICH) Sure.

14 After identifying the links that Ms. Casteel  
15 described, we took those links and began to connect them  
16 together to form routes, and initially two primary route  
17 alternatives began to emerge, the map on the right shows  
18 the two primary route alternatives, one in orange and one  
19 in blue. As well as several alternative route options  
20 shown as the green and black dashed lines.

21 Both of these primary route alternatives, the  
22 orange and the blue, both would connect essentially the  
23 same point along the White Tanks to West Phoenix line,  
24 and rebuild and co-locate that existing 69kV line in the  
25 Agua Fria River corridor, both sharing that same

1 alignment up to or down to the Lower Buckeye Road area.  
2 At this point the orange route alignment would take a  
3 more direct route along Lower Buckeye Road to the  
4 Microsoft Data Center site and continue along the north  
5 for a ways before heading south through their site to the  
6 Runway Substation. Alternatively, the blue route would  
7 continue along that 69kV alignment, continue to co-locate  
8 with that, and then once reaching the north side of an  
9 underground pipeline, we would then head west paralleling  
10 that pipeline to the west out of the riverbed corridor,  
11 crossing the south side of the STACK Data Center parcel  
12 to Litchfield Road, and then continue north on the east  
13 side of Litchfield Road for a ways, still within STACK  
14 Infrastructure, STACK Data Center parcel.

15 Before reaching the Lower Buckeye Road, it would  
16 cross to the west, crossing Stream Data Center, just on  
17 the south side of their existing building to the  
18 Microsoft site. It would then head back north, crossing  
19 the east side or along the east side of Microsoft Data  
20 Center, and once reaching the north side it would  
21 continue in that same alignment of the orange route all  
22 the way to the Runway Substation. And, again, these  
23 black and green dashed lines would be alternative route  
24 options to be able to replace any portion of the  
25 preferred, or I'm sorry, to the primary routes that I

1 just described as an alternative.

2 Now, this map --

3 MEMBER GRINNELL: Mr. Chairman?

4 CHMN KATZ: Yes. And one thing, Mr. Grinnell,  
5 is there any way you can maybe lower your camera. The  
6 court reporter said she'd like to be able to see your  
7 face a little bit better. I guess she's good at reading  
8 lips.

9 That's perfect.

10 MEMBER GRINNELL: Most people don't want to see  
11 my face.

12 CHMN KATZ: That's good. We appreciate it.

13 MEMBER GRINNELL: Just real quick, why is the  
14 blue alternative your primary when the orange alternative  
15 being so much more direct? What is the thought process  
16 in that one?

17 A. (MR. EICH) Member Grinnell, that's a good  
18 question. And a couple of things regarding that. When  
19 we took this map to the various stakeholders to discuss  
20 these alternative options, we requested feedback from  
21 these stakeholders before bringing it to the public. And  
22 among those stakeholders was the City of Avondale's  
23 feedback, back to what Ms. Casteel briefly explained,  
24 some of the feedback from the City of Avondale was in  
25 regards to their Festival Fields Park, and the residents

1 just north of Lower Buckeye Road, and the alignment for  
2 that orange line being close to those residents and the  
3 field. The park here was a concern of theirs that we  
4 took back to reevaluate this map.

5 We also presented this map to other stakeholders  
6 prior to taking it to the public, including the  
7 Phoenix-Goodyear Airport, the Flood Control District of  
8 Maricopa County, and the City of Goodyear, as well as the  
9 County. All were in support of this, however, again, the  
10 City of Avondale, their feedback largely expressing the  
11 concern with that alignment along Lower Buckeye Road  
12 being closer to the residents and the park.

13 So we took that information and went back and  
14 made a couple of changes to the map and identified that  
15 blue route as a preliminary preferred route. We then  
16 identified those other alignments as alternatives.

17 CHMN KATZ: Let me just ask, though, on the  
18 green and black alternative routes, it was my  
19 understanding, at least during the opening remarks, is  
20 that this Committee would not have to consider those, but  
21 what would happen if you had to use those in lieu of the  
22 entire primary route? Does this Committee need to in any  
23 way permit those alternative routes with any type of  
24 conditions?

25 MR. DERSTINE: Mr. Chairman, let me take a stab,

1 at least in responding to your question. The question in  
2 terms of the green and black dotted line, which follows  
3 Buckeye Road, as Mr. Eich indicated, that did not have  
4 the support of the City of Avondale, they were concerned  
5 about the impact of putting this project, this line along  
6 Buckeye Road, which gets to Member Grinnell's question.

7 It is a more direct shot to move it straight  
8 across, but the City was -- had concerns and expressed  
9 concerns about the impact to the park there, as well as  
10 placing this line closer to residents. And so that  
11 segment was not brought forward.

12 And to your question, then, Mr. Chairman, is  
13 that that leg on Buckeye Road fell out, for the reasons I  
14 just indicated, and we did not bring that forward in the  
15 application. Instead, bringing the preferred route  
16 forward, which does include some of the alternatives that  
17 we've identified, but not that leg on Buckeye Road.

18 CHMN KATZ: And I understand that. But I see  
19 those other two legs that are to the east and the south,  
20 are they going to need to be approved of by the Committee  
21 or -- and, finally, by the Corporation Commission or  
22 how -- I was just not certain, because you mentioned the  
23 alternatives, B, C -- B and C.

24 MR. DERSTINE: That's a good question to  
25 ask -- A, B, and C are the shorter alternatives that are

1 in and around the data center sites. Subroute D is the  
2 long route. We did bring that forward in the  
3 application, so if for some reason this Committee decided  
4 that was a better place to put this line than the  
5 preferred route, you could do that.

6 CHMN KATZ: But you're not asking us?

7 MR. DERSTINE: We're not asking you to do that,  
8 and we don't think that's the right choice for the  
9 project.

10 MEMBER HAMWAY: Mr. Chairman?

11 Usually when we approve multiple routes, it's  
12 because maybe all the approvals for the preferred route  
13 hadn't been gathered. So I guess my question to you, is  
14 everything on the preferred route under site control?

15 MR. DERSTINE: Everything on the preferred route  
16 under site control. I would say that given that we are  
17 co-locating the line on that north/south leg with an  
18 existing APS 69kV line, the answer to that is yes as to  
19 that entire segment running to the end of the Agua Fria  
20 River to the point where it moves to the west. And then  
21 we'll have to secure -- and I think Mr. Eich can speak to  
22 this more directly -- I think we'll have to secure  
23 easements or right-of-way on the private land that gets  
24 us from the Agua Fria River over to the data center  
25 sites, but we don't foresee any obstacles in doing that.

1 Q. Do I have that right?

2 A. (MR. EICH) Yes, that's correct.

3 I did want to also point out that in the  
4 previous image, this was a point in time in the process  
5 that eventually evolved to this map that is shown as a  
6 preferred route and subroutes, dated September 2022.  
7 Part of the reason that that initial alignment along  
8 Lower Buckeye Road was the evolution of the site plans of  
9 the data centers, and also finalizing where that location  
10 would be for the Diamond Substation through that process,  
11 the preferred route was further identified as this  
12 alignment here. Eliminating the alignments, the  
13 alternative along Lower Buckeye Road between the  
14 residents and the park, as preferred by the City of  
15 Avondale. And this map that is shown before you is also  
16 included in our newsletter that was sent out in September  
17 2022.

18 I -- I guess I should go back just one slide.  
19 This map was sent out during our second open house  
20 newsletter to further request input from the public  
21 regarding all the various alternatives here. And based  
22 on the input that we received, that led to this map here.  
23 This was sent out in September to announce the hearing  
24 and to, again, to provide further input on the project to  
25 the public. Again, identifying this preferred route in

1 blue, as well as the four subroute alternatives, as we've  
2 discussed throughout this hearing, so A through D being  
3 those subroutes. A through C addressing the particular  
4 evolving site plans of the data center sites, and D to  
5 address an alternative along this longer leg.

6 Q. So maybe take us back, so I -- I'm now seeing  
7 the Banner on your -- on your slides there, so what  
8 you've taken the Committee through is kind of the process  
9 that was used to develop the final route, the preferred  
10 and the subroutes that are presented in the application  
11 through this process that took place in April -- from  
12 April to May. And then to September when you finally  
13 developed the preferred route and the subroutes that are  
14 presented in the application. And so you and I will  
15 cover the public outreach and the stakeholder engagement  
16 process a bit later in our case, but I think what you've  
17 touched upon is that these changes that were made, going  
18 back to --

19 If you can scroll us back to the April 22 slide.

20 That was a -- those were kind of the preliminary  
21 route alternatives that you presented, I take it, to the  
22 City of Avondale and the City of Goodyear and others.  
23 And then based on the feedback that you received from, in  
24 particular, the City of Avondale, from that April '22  
25 map, that progressed to the May '22 map, which still

1 included Buckeye leg, but more as an alternative than as  
2 a preferred route. And then based on, I gather, further  
3 public feedback and feedback from various stakeholders  
4 that got us to the September '22 map, which is  
5 essentially the route maps that we included in the  
6 application.

7 Is that -- is that kind of the sequence of  
8 things?

9 A. (MR. EICH) Yes.

10 Q. Okay.

11 CHMN KATZ: But we don't need to be considering  
12 Subroute D; is that correct?

13 MR. DERSTINE: We are not asking that the  
14 Committee approve Subroute D. It is in the application,  
15 but I think, as Mr. Eich will touch upon, there  
16 were -- he's going to spend a little more time in  
17 explaining those subroutes, just in terms of the pros and  
18 cons and some of their attributes, but that is -- there  
19 has not been a lot of support for using Subroute D as an  
20 alternative to the north/south leg of the preferred  
21 route, and so to your -- to your question, Mr. Chairman,  
22 we're not asking that you prefer --

23 CHMN KATZ: Right. And B and C are on the  
24 properties of the -- of the facilities.

25 MR. DERSTINE: They are, A, B, and C --

1 CHMN KATZ: Got it.

2 MR. DERSTINE: -- touch on the properties of the  
3 different data centers, and we're not asking that you  
4 formally approve any of those subroutes. I think -- and  
5 I certainly understand the question -- you've had some  
6 cases before this Committee where the Committee was asked  
7 to approve multiple routes or alternatives because their  
8 final designs, you know, I'm thinking back to the case  
9 you had in Flagstaff where you had multiple  
10 interconnection options that there the applicant wanted  
11 to keep in play. And you've had other cases where the  
12 applicant was requesting that you approve one or more  
13 alternatives at the same time.

14 We're not doing that here. We're only asking  
15 that you approve the preferred route, as well as the  
16 corridor, that we'll get to here in a bit.

17 CHMN KATZ: Thank you.

18 BY MR. DERSTINE:

19 Q. All right. Mr. Eich, I indicated that you're  
20 going to give the Committee some more details on the  
21 preferred route and the subroutes. And, again, we're  
22 giving them detail on the subroutes that are included in  
23 the application, but we're not seeking approval of those  
24 subroutes, but we thought just to give the Committee a  
25 good understanding of what was in the application and

1    why, and maybe you'll touch on why some of those  
2    subroutes are not being -- or APS is not asking that the  
3    Committee approve those.

4               Why don't you cover the various -- the preferred  
5    route and the subroutes.

6       A.       (MR. EICH) Certainly.

7               So the map I'll refer to is the standard map  
8    that you have been noticing on the screen, which is found  
9    in Figure 1 in the CEC application, also on the placemat  
10   before you. Approximately 4.34 miles is a length of the  
11   preferred route, again, shown in blue. 54 percent of  
12   this preferred route would be within the Agua Fria  
13   riverbed corridor, rebuilding and co-locating with the  
14   existing 69kV line in that corridor. The segment along  
15   450, as it leaves the Agua Fria riverbed corridor, is  
16   anticipated to be a future 69kV connection to the Diamond  
17   Substation, which that will also be co-located with the  
18   230kV line along this preferred route.

19              46 percent of this alignment would be within the  
20   data center properties, as well as a couple of road  
21   crossings on Litchfield Road and El Cielo -- El Cielo  
22   Street, Litchfield Road being between STACK Data Center  
23   and Stream Data Center, El Cielo between Stream and  
24   Microsoft.

25              We spoke to it earlier, but just to point out,

1 this would cross the Union Pacific Railroad and Buckeye  
2 Road aerially, as well as Lower Buckeye Road aerially, as  
3 the 69kV line currently crosses today. This does meet  
4 the connection need for STACK Data Center at the Diamond  
5 Substation, as well as the redundancy needs for Microsoft  
6 Data Center. And this aligns with the City of Avondale's  
7 request to have that location further south of their park  
8 and further south of the residents along Lower Buckeye  
9 Road.

10 And we've discussed regarding the subroutes,  
11 each of these subroutes would replace a small segment of  
12 the preferred route. And we are requesting that the  
13 preferred route be the authorized route. I will point  
14 out that on the Microsoft site, due to their evolving  
15 site plans, particularly on the north end, northwest  
16 area, we are requesting that that area include that  
17 northwest section as well, as I get into the corridor,  
18 essentially following -- encompassing the Subroute A  
19 area.

20 Subroute A on this map is approximately .36  
21 mile, shown as the black and orange dashed line on the  
22 Microsoft parcel. And if -- if utilized, would add  
23 approximately 2/10 of a mile to the overall route.  
24 Again, it is located on the Microsoft Data Center parcel.

25 Subroute B is the yellow and black dashed line,

1 located north of the Stream site, as well as north of  
2 Lower Buckeye Road. It's approximately 4/10 of a mile,  
3 and if utilized would be an increase of 3/100 of a mile  
4 to the overall route. This would avoid crossing the  
5 Stream parcel, and instead, would cross eight parcels on  
6 the north side of Lower Buckeye Road, if utilized.

7 Subroute C is the red and black dashed line,  
8 it's approximately .44 mile, if utilized would be an  
9 increase of approximately .04 mile to the preferred  
10 route. And this does cross a small segment of Microsoft  
11 Data Center, as well as Stream Data Center on the south  
12 side of the existing Stream building. And this segment,  
13 again, due to the evolving site plans of these data  
14 center parcels, particularly Stream, the feedback we  
15 received from Stream was that they did also prefer the  
16 preferred route on the north side of their building.

17 Subroute D is the green and black line, which is  
18 approximately 2.02 miles, and if utilized would be a net  
19 increase of .38 mile. This eliminates most of the  
20 co-location opportunities that are on the west side of  
21 the Agua Fria River, and it does bring the alignment  
22 closer to residents and -- existing and future residents  
23 and development.

24 And I will say, again, although we've received  
25 no support for this, Avondale's preference also is

1 that -- is for the preferred route.

2 Q. So comparing and contrasting the preferred  
3 route, it's safe to say that Subroute D there at the end,  
4 the key takeaways are that the preferred route allows you  
5 to co-locate the line with that existing 69, and if you  
6 were to go with Subroute D, it pushes the line closer to  
7 residents and other future development along the eastern  
8 edge of the Agua Fria River; do I have that right?

9 A. (MR. EICH) Yes.

10 Q. And then I gather that as to Subroute B and C,  
11 some of the, at least Stream in particular, has concerns  
12 with those subroutes because it -- they may hamper  
13 their -- their development plans by placing the line more  
14 in the middle of their property, and they prefer the  
15 preferred route, which puts the line on the northern edge  
16 or the boundary of their -- of their project, right?

17 A. (MR. EICH) Excuse me -- yes, in particular  
18 Subroute C, that would directly affect Stream. Their  
19 preference was the preferred route. At the time that  
20 these subroutes were identified, Subroute B shown on the  
21 north side of Lower -- or yes, north side of Lower  
22 Buckeye Road, was identified as a feasible location.

23 Since then there has been future development  
24 with future office-type buildings along this alignment  
25 here, which would make it much more challenging.

1 Q. So the comparing and contrasting Subroute B to  
2 the preferred route puts the line on the north side of  
3 Buckeye Road, which puts it closer to those -- those new  
4 developments that are -- have now come into play.

5 Do I have that right?

6 A. (MR. EICH) Yes, that's correct.

7 Q. Okay.

8 MEMBER GRINNELL: Mr. Chairman?

9 CHMN KATZ: Yes, Member Grinnell.

10 MEMBER GRINNELL: Okay. So I'm looking at the  
11 application again, so it appears that the application is  
12 inclusive of subroutes A, B, C and D.

13 Is that correct, Counsel?

14 MR. DERSTINE: The application includes those  
15 subroutes as alternatives to the preferred route, but  
16 again, Member Grinnell, we're asking that you approve the  
17 preferred route.

18 MEMBER GRINNELL: Okay. Thank you.

19 BY MR. DERSTINE:

20 Q. I think this slide that we have on the screen,  
21 it's slide number 79 of APS 6, those are your -- I think  
22 kind of the key takeaways why the preferred route is the  
23 best route.

24 Do you want to cover that, please?

25 A. (MR. EICH) Yes.

1           We feel that the preferred route is the best  
2 route because it does minimize the residential visual  
3 impacts. It results in the smallest number of private  
4 landowners directly affected by the project. It does  
5 maximize opportunity to co-locate with existing power  
6 lines. It follows the alignment supported most by the  
7 public and stakeholders, and maximizes utilizing the data  
8 center properties, as well.

9       Q.     Okay. So let's -- let's talk about the corridor  
10 that we're requesting that the Committee approve for the  
11 preferred route.

12       A.     (MR. EICH) Yes.

13           We are requesting a variable width corridor that  
14 varies from 100 to 900 feet. The map on the right  
15 is -- it shows this corridor in the yellow hatched area,  
16 overlapping the preferred route. There are also  
17 hashmarks with numbers throughout the corridor showing  
18 the widths of the corridor. This is also found on the  
19 placemats on the -- on one side of the placemats in front  
20 of you.

21           Again, the widest area of this corridor would be  
22 found on the Microsoft Data Center site. And that is to  
23 allow the flexibility needs of the Microsoft Data Center  
24 site plan and evolving site plans, particularly in this  
25 area. It does also widen a little bit in the riverbed

1 area, particularly at the cut-in location where we cut in  
2 to the existing line to allow for the flexibility needed  
3 during final engineering for that exact cut-in spot. The  
4 riverbed does often have difficult terrain that could  
5 provide challenges for the exact location, so that wider  
6 corridor would be requested in the riverbed as well.

7 Q. And what's been marked as APS-7 is the proposed  
8 Certificate of Environmental Compatibility, that proposed  
9 CEC has the -- has attached to it the corridor  
10 description and a map. And that corridor description  
11 coincides with what you have, what you're showing on the  
12 screen before the Committee.

13 So, again, APS-7 and the corridor description is  
14 what's currently included with the proposed CEC that we  
15 have before the Committee; is that right?

16 A. (MR. EICH) Yes.

17 Q. Okay. As to the right-of-way that you'll need  
18 to construct the line?

19 A. (MR. EICH) We are also requesting a variable  
20 width right-of-way, but no more than 120 feet. The  
21 right-of-way that's requested is 50 -- I'm sorry, 60 feet  
22 on each side of the center line of the transmission line,  
23 that is for the construction and maintenance activities  
24 for the project. However, in areas where the line is  
25 located next to roadways, for example, along Litchfield

1 Road and Lower Buckeye Road, road rights-of-way could be  
2 utilized, as well, to access one side of the line. In  
3 those areas the right-of-way could be narrower.

4 Q. So I want to, taking you back to the letter from  
5 Maricopa County Department of Transportation, so you're  
6 requesting a corridor that may overlap with road  
7 right-of-way, but the structures will be, I think what I  
8 gathered from Mr. Petry's testimony, the structures will  
9 be constructed and placed on private land outside of the  
10 roadway right-of-way; is that -- is that right?

11 A. (MR. EICH) Yes, that's correct.

12 Q. So you're asking for up to 120 feet of  
13 right-of-way within the requested corridor to construct  
14 the line, and there are areas in which that right-of-way  
15 that will be on private land may overlap with existing  
16 road right-of-way, but we're not going to impact any, the  
17 existing road right-of-way that is there for -- for  
18 those -- for those roadways, say even along Buckeye Road?

19 A. (MR. EICH) Yes, that's correct.

20 MEMBER GRINNELL: Mr. Chairman?

21 CHMN KATZ: Yes, Member Grinnell.

22 MEMBER GRINNELL: You all are probably getting  
23 tired of hearing me.

24 But how much of this alignment lies with or is  
25 adjacent to any floodplains? And if that's the case, how

1 much further down do you need to go with the poles and  
2 the structures?

3 MR. EICH: Mr. Grinnell, or Member Grinnell, I  
4 didn't quite hear the full question that you had. Can  
5 you repeat that?

6 MEMBER GRINNELL: I'm looking at this map again  
7 and I'm seeing that a lot of your preferred route is  
8 parallel to or maybe even in floodplains. If that's the  
9 case, how much of an adjustment, when it comes to the  
10 depth of the poles and the structures, do you need to go?

11 MR. EICH: As far as the depth of each  
12 structure, I think it depends on the terrain and the  
13 condition of the soil. I couldn't give you an exact  
14 distance, but I do know that these structures are  
15 engineered to accommodate the riverbed and any flooding  
16 and water that may be going through there.

17 MEMBER GRINNELL: Well, if these are, in fact,  
18 in the floodplain area, has the County, understanding the  
19 dynamics of this whole process, I mean, are they saying  
20 yes, we're going to support you, but this is what you  
21 need to do?

22 MR. EICH: Yes. We have visited with the  
23 County, and made sure that they were aware of the project  
24 and the feedback that we've gotten from the County, as  
25 well as all the jurisdictions, so far has been supportive

1 of the project, understanding that prior to engineering,  
2 all that will be more thoroughly vetted out during the  
3 engineering process and approved by those jurisdictions  
4 prior to any construction.

5 MEMBER GRINNELL: Thank you, sir.

6 BY MR. DERSTINE:

7 Q. And to Member Grinnell's question about the  
8 depth of -- what I understood his question as to the  
9 depth of the foundation for the structures that will be  
10 placed in the Agua Fria River, we're going to be  
11 replacing the 69kV structures that are currently within  
12 the Agua Fria River with a new double-circuit-capable  
13 structure that will carry the existing 69 with the new  
14 double-circuit 230kV circuit; is that correct?

15 A. (MR. EICH) Yes, that's correct.

16 CHMN KATZ: And I'm assuming the Maricopa County  
17 Flood Control District isn't concerned that all of a  
18 sudden these poles are going to wash away if there's a  
19 high river -- or a high-flow event through the river  
20 corridor?

21 MR. DERSTINE: Yeah, and I think --  
22 Mr. Chairman, I guess, that's the question and the  
23 consideration for APS is that you already have structures  
24 within the Agua Fria River. You're familiar with what  
25 needs to be engineered and how deep those foundations

1 need to go in order to support not only the existing  
2 structures that are there, but now the structures that  
3 will replace the 69 with the new poles that will carry  
4 the 69 and the new 230 circuits.

5 Q. You have familiarity with that process and that  
6 engineering, and so I gather, Mr. Eich, you're  
7 comfortable that the transmission and engineering group  
8 can place those structures in such a way that they'll be  
9 secure and not risk having the line washed out by any  
10 sort of flood or, you know, heavy rain occurrence?

11 A. (MR. EICH) Exactly. We also have had  
12 discussions with the Flood Control District. And to your  
13 point, Mr. Derstine, they are aware of the existing  
14 utilities and feel -- have not expressed any concern  
15 regarding future engineering at this time, other than  
16 that we will need to -- they will have to approve it and  
17 affirm whatever is engineered in that prior to  
18 construction of the line, so --

19 Q. Okay. So the Flood Control District will have  
20 an opportunity to review and approve whatever your final  
21 design is for this project?

22 A. (MR. EICH) Yes.

23 Q. Okay.

24 MEMBER HAMWAY: Just a quick question,  
25 Mr. Chairman?

1 CHMN KATZ: Yes.

2 MEMBER HAMWAY: Is -- is H-10 the letter from  
3 Flood Control District, dated 9/1/2022 to -- to you,  
4 Mr. Eich; is that what's outstanding with the Flood  
5 Control?

6 MR. EICH: Yes. That's the correspondence that  
7 we've had with the Flood Control District.

8 MEMBER HAMWAY: Okay. And so the fact that all  
9 those statuses are still open just means that those are  
10 things you're still trying to address?

11 MR. EICH: It remains open until the  
12 construction of the project.

13 MEMBER HAMWAY: Okay.

14 MR. EICH: So that's why it's still open.

15 MEMBER HAMWAY: Okay. Thanks.

16 BY MR. DERSTINE:

17 Q. Anything else you wanted to add on the corridor  
18 of the right-of-way, Mr. Eich?

19 A. (MR. EICH) I was just going to go ahead and  
20 describe the corridor, if you would like me to proceed  
21 with that.

22 Q. Okay. Go ahead.

23 A. (MR. EICH) So the corridor, the way I'll  
24 describe it, I'll begin in the Microsoft Data Center  
25 site, beginning with 100-foot-wide corridor, along the

1 south end of the existing Runway Substation. The  
2 corridor will be 100 feet wide paralleling that south  
3 end. As it wrapped around the Runway Substation on the  
4 southeast corner, it will then widen to 200 feet and  
5 proceed north through the Microsoft Data Center site.

6 It would then expand to 900 feet, expanding to  
7 the west at the El Sol street alignment, to encompass  
8 that northwest area on the Microsoft center site, again,  
9 to accommodate their evolving site plans. The corridor  
10 would continue north along with the west boundary of that  
11 line following the Microsoft site's west boundary on that  
12 curved line along La Cometa Street. The corridor would  
13 then narrow to 250 feet wide on the north end of the  
14 Microsoft site, as it followed along to the north end of  
15 Microsoft to the east.

16 Once it reached this street known as El Cielo  
17 Street, the corridor would continue at 250 feet wide with  
18 the north boundary of that corridor being coincident with  
19 the center line of Lower Buckeye Road. It would overlap  
20 Stream Data Center parcel in this area as well, to  
21 Litchfield Road, at which point it would head south at  
22 250 feet wide, with the west side being coincident with  
23 the west right-of-way line of Litchfield Road.

24 Once we reached the south end of STACK Data  
25 Center, the corridor would expand to 300 feet wide and

1 follow along the south end of STACK's parcel into the  
2 riverbed. Once we reach the 69kV line, the corridor  
3 would expand to 350 feet wide, being 200 feet northwest  
4 of that current center line, and 150 feet to the  
5 southeast of that center line, with a total of 350 feet,  
6 as it proceeded north-northeast through the riverbed  
7 corridor, crossing Lower Buckeye Road, Buckeye Road here  
8 on the north end, and the Union Pacific Railroad.

9           Once on the north side of Union Pacific  
10 Railroad, the corridor would widen to 500 feet. That  
11 would expand to the east to our existing White Tanks to  
12 West Phoenix 230kV line, and that wider corridor would  
13 continue to the north approximately 1,150 feet.

14           MEMBER HAMWAY: Mr. Chairman, I have a quick  
15 question.

16           CHMN KATZ: Yes, Member Hamway.

17           MEMBER HAMWAY: Even though we're not going to  
18 approve Subroute A, it appears that still is in play,  
19 since it's on the Microsoft property and they can do  
20 whatever they want; is that right?

21           MR. EICH: Subroute A does fall within -- is  
22 falling within this corridor.

23           MEMBER HAMWAY: So we're -- but we're not  
24 approving that, but it could still be utilized?

25           MR. EICH: Yes, essentially it's still approving

1 the preferred route, just with this wider area here.

2 MEMBER HAMWAY: Okay. Which encompasses  
3 Subroute A?

4 MR. EICH: Which does encompass Subroute A, yes.

5 MEMBER HAMWAY: Okay. Thanks.

6 BY MR. DERSTINE:

7 Q. All right. You've covered the corridor and the  
8 right-of-way, let's touch on the costs and the structures  
9 that are used for the project.

10 A. (MR. EICH) Yes. This table that I'm showing on  
11 the screen shows the anti- -- anticipated project costs.  
12 It does have the preferred -- the preferred route cost,  
13 as well as the subroutes. The preferred route  
14 right-of-way costs are anticipated to be \$2.9 million,  
15 with construction costs at just over \$16 million. The  
16 combined right-of-way and construction costs are  
17 anticipated to be just over \$19 million. The subroutes,  
18 A through D again, are shown as well. Those would be the  
19 estimated costs should any of those subroutes be  
20 utilized.

21 Again, we're showing this to show that the  
22 preferred route is the lowest cost, again, not seeking  
23 those subroutes, but just to show a comparison that the  
24 preferred route is the lowest cost anticipated. We also  
25 plan to use a small variety of structures. The screen on

1 my right's showing a couple of versions of the  
2 structures, the left half showing typical double-circuit  
3 230kV tangent monopole structures, the front elevation  
4 and side elevation. These structures are found also in  
5 Exhibit G-1 of the APS CEC application.

6 The structures on the right side are the front  
7 and side elevations of typical double-circuit 230kV  
8 turning monopole transmission structures. That is found  
9 in Exhibit G-2. Both of these would be capable of 69kV  
10 underbuild.

11 We also have a third structure shown, this is  
12 known as our cut-in structure, showing the front  
13 elevation and side elevation. This is a typical  
14 double-circuit 230kV cut-in structure. There's also a  
15 picture on the right showing what this type of structure  
16 looks like, bringing the double-circuit line to a lower  
17 level as it crosses underneath an existing transmission  
18 line. You can barely see some of the arms in this  
19 picture here, but there is Tucson Electric Power line  
20 that it would need to cross under, which is why this  
21 structure would be required to cross underneath it, back  
22 up to the rebuilt 69 line at a 230 level, so it would be  
23 connecting to those new 230kV poles.

24 The heights of the structures would range from  
25 115 to 195 feet. The plan lengths would be 400 to 1,000

1 feet, approximately. And we would comply with the  
2 Federal Aviation Administration and Phoenix-Goodyear  
3 Airport height restrictions. I'll also say that we've  
4 had several of these points evaluated by the FAA. They  
5 have done an aeronautical evaluation on a few of these  
6 points, and have determined no conflict with their  
7 evaluations.

8 CHMN KATZ: Are they requiring any special  
9 lighting because of the proximity to the airport?

10 MR. EICH: No, this would not require special  
11 lighting.

12 BY MR. DERSTINE:

13 Q. That communication that you received from the  
14 FAA is included as APS Exhibit 21, correct?

15 A. (MR. EICH) Correct.

16 Q. All right. Well, you're off the hot seat,  
17 Mr. Eich. And we're going to turn to the environmental  
18 studies for the project.

19 I think, Ms. Casteel, you're going to start us  
20 off with, I guess, an overview of the studies and then  
21 we'll get into the -- each one of the various areas of  
22 analysis one at a time?

23 A. (MS. CASTEEL) Yes.

24 So we -- SWCA conducted a series of  
25 environmental analyses for -- in support of the CEC

1 application. That includes an assessment of  
2 landownership and jurisdiction, existing and future land  
3 use, biological resources, cultural resources, visual  
4 resources, and recreational areas.

5 Q. Okay. Before we dig into the -- each of those  
6 studies, identify and show the Committee the project area  
7 and the study area and the difference between the two.

8 A. (MS. CASTEEL) Yes. So once the route  
9 development process established a preferred route and  
10 subroutes, the project area was defined, that includes  
11 both the preferred route and subroutes, and those were  
12 refined through the iterative process of the preliminary  
13 link, detailed link analysis and then the route  
14 development process that Mr. Eich has summarized for us.

15 So the -- once the project area was defined, the  
16 study area, then, was defined as the project area with a  
17 one-mile buffer. And that study area is what was used  
18 for the environmental analyses.

19 Q. So as to each of the studies and the analysis  
20 that we'll cover here in a bit, all that analysis takes  
21 place within the, what you've identified as the study  
22 area, and that's the, in general, the map that we're  
23 looking at on the right screen, which is going to start  
24 us off with jurisdiction and land ownership.

25 Do I have that right?

1       A.       (MS. CASTEEL) Yes. So as you can see on the  
2 map, we have City of Goodyear here on the west side of  
3 the city area, and that's outlined in the red. The City  
4 of Avondale on the east side, that's outlined in the  
5 green. And then there's pockets of Maricopa County  
6 jurisdiction here along MC85, here on the northeast  
7 corner of the airport, and some here along the riverbed,  
8 and here on the southeast corner as well.

9       Q.       Okay. So that was -- that was jurisdiction land  
10 ownership. The real meat of the first stage of your  
11 environmental analysis is what is the impact of this  
12 project on existing and future land use?

13       A.       (MS. CASTEEL) Yes. The -- first we assess the  
14 existing land use, the project area -- or, sorry, the  
15 study area, the larger study area does include both  
16 private and public land. The stakeholders with the City  
17 of Goodyear, City of Avondale and Maricopa County have  
18 general plans and comprehensive plans that discuss  
19 existing and future land use. So those were reviewed and  
20 we also conducted a field study to confirm existing  
21 conditions for different parcels that may have  
22 transitioned since the publishing of those master plans,  
23 comprehensive plans.

24               So the -- during this analysis, we determined  
25 that the preferred route and subroutes are not contrary

1 to zoning ordinances or master plans for any of those  
2 jurisdictions. We -- during this analysis of land use,  
3 the -- sorry, following the field review, we also  
4 coordinated with the jurisdictions to get feedback on the  
5 existing land use and future land use, because the cities  
6 sometimes know about projects that are upcoming that have  
7 not been incorporated into these plans. The existing  
8 land use in the study area is primarily residential, as  
9 seen here in the orange; industrial, which is seen here  
10 in purple; and agricultural, seen here in green. It also  
11 includes commercial utility use and water, meaning  
12 primarily the Agua Fria River corridor.

13 Future land uses were assessed similarly by  
14 reviewing general plans and comprehensive plans, and then  
15 in addition to that, the ADOT's SR 30 corridor, which is  
16 planned for the area. That corridor can be seen here on  
17 the southwest corner of the study area. And, again,  
18 coordination with relevant jurisdictions and agencies.

19 So for future land use, as you can see with the  
20 changing land uses here of the agricultural area, which  
21 currently is on the south side of the study area, is  
22 converting over into urban and suburban uses,  
23 specifically industrial and commercial uses. And the  
24 preferred route and subroutes minimize over  
25 land -- overall land use impacts by eliminating -- sorry,

1 limiting crossings of existing transmission lines,  
2 avoiding siting on residential and park and active open  
3 space whenever possible, limiting roadway crossings and  
4 maximizing the placement of project facilities on the  
5 data center parcels while utilizing existing transmission  
6 line right-of-way within the Agua Fria River corridor.

7 So our conclusion --

8 MEMBER HAMWAY: Just a quick question. So the  
9 future land use, you know, virtually all of the  
10 agriculture is gone, has the zoning already been done on  
11 that, or that's just in the plan for future action?

12 MS. CASTEEL: That's in the plan -- the general  
13 plans for the cities.

14 MEMBER HAMWAY: For future?

15 MS. CASTEEL: For future.

16 MEMBER HAMWAY: So the agricultural land  
17 designation is still existing?

18 MS. CASTEEL: Yes.

19 MEMBER HAMWAY: Okay. Thanks.

20 MS. CASTEEL: So the conclusion, from our land  
21 use analysis, is that the preferred route and subroutes  
22 would result in minimal impacts to land use and would be  
23 environmentally compatible with existing and future land  
24 uses.

25 BY MR. DERSTINE:

1 Q. Okay. So that's land use, existing and future.  
2 The next area of analysis were the biological resources,  
3 and the biological resource analysis is detailed in  
4 Exhibits C and D to the application. But do you want to  
5 summarize your analysis for the Committee here?

6 A. (MS. CASTEEL) Yes. So for biological resources,  
7 again, we started with a data collection and SWCA  
8 obtained information from the Arizona Game and Fish and  
9 U.S. Fish and Wildlife Service and conducted a field  
10 survey. The Game and Fish provided a response letter to  
11 inform the project regarding special status species that  
12 may be present in the study area, and that's what's shown  
13 here on the right-hand side. It's the letter from  
14 Arizona Game and Fish.

15 The conclusions from our review was that there  
16 would be no adverse effects to any endangered or  
17 threatened species, or their associated habitats. There  
18 are known bat roosts along MC85 and Union Pacific  
19 Railroad up here on the north end. The Agua Fria River  
20 does serve as a riparian movement wildlife corridor and  
21 the project may impact areas of vegetation, in general,  
22 wildlife temporarily during construction activities.

23 However, the project would comply with all  
24 required and recommended mitigation, and it was  
25 determined that impacts to biological resources would be

1 low and that the project is environmentally compatible  
2 with biological resources.

3 CHMN KATZ: Are there any identified,  
4 threatened, or endangered species within the area?

5 MS. CASTEEL: No.

6 BY MR. DERSTINE:

7 Q. And are the bats, are they a special status  
8 species of some sort, is that why you have identified  
9 them in terms of the bat roosts?

10 A. (MS. CASTEEL) Not -- sorry, they're not  
11 threatened or endangered. It is -- I don't believe  
12 they're -- sorry, do you know?

13 A. (MR. PETRY) Not -- not protected in any way. We  
14 just do have an understanding -- excuse me -- of their  
15 presence at those bridge locations, and just noted that  
16 that was something that the Game and Fish had called out  
17 in their correspondence, some presence of bat in those  
18 locations. So something we just need to be mindful of  
19 and aware of during construction, but no anticipated  
20 impacts to those bats for construction crossing those  
21 bridge locations is anticipated.

22 BY MR. DERSTINE:

23 Q. Okay. Thank you for that.

24 So our next area of analysis were cultural  
25 resources, that would be, what, historic sites and

1 structures, archaeological sites.

2 Mr. Petry, I think you're going to take us  
3 through that analysis?

4 A. (MR. PETRY) Yes. Thank you.

5 So as part of the review, SWCA completed, for  
6 Exhibit E of the CEC application, we completed a Class I  
7 review or a desktop review to identify previously  
8 identified historic sites, structures, or archaeological  
9 sites within the overall project study area. And that  
10 review was completed by reviewing or consulting the  
11 Arizona State Museum. That includes their AZSITE  
12 database. The National -- excuse me -- National Register  
13 of Historic Places, as well as the Arizona Register of  
14 Historic Places, general land office plat maps, and also  
15 looking at historic topographic maps.

16 What we found is that three archaeological sites  
17 have been documented within the overall study area. One  
18 of those sites intersects a portion of the preferred  
19 route in a previously developed area. Archaeological and  
20 excavation testing at that site that was conducted in  
21 2018 found that no cultural material is present. And the  
22 industrial development is also present at that location  
23 or is present at that location, has likely removed any  
24 cultural resources related to that site from the  
25 preferred route.

1           There are numerous historic era structures that  
2       were identified within the project or study area,  
3       including the Southern Pacific Railroad, the U.S. 80, and  
4       other mainly linear resources, such as roads. Most of  
5       those have not been evaluated for listing on the Arizona  
6       Register of Historic Places.

7           Our assessment showed that the proposed  
8       development of an overhead 230kV line, the proposed  
9       project, will not negatively impact those historic  
10      resources. Three historic properties were also  
11      identified within the study area, that includes the  
12      Larkin site, the Litchfield Park Naval Air Facility, and  
13      the St. John's Canal. Construction of the transmission  
14      line will introduce a visual element to the overall  
15      project area, but will not diminish the integrity of the  
16      characteristics of those properties for which they're  
17      eligible for listing within the register.

18          In their response to our project mailings, the  
19      State Historic Preservation Office, SHPO, did recommend a  
20      Class III survey, an actual physical pedestrian survey,  
21      of the portions of the project area that have not been  
22      surveyed, or where prior surveys are considered out of  
23      date. And, of course, the applicant committed to  
24      completing those surveys prior to construction.

25          MEMBER HAMWAY: How many miles have not been

1 previously surveyed?

2 MR. PETRY: Much of the project area located  
3 along and within the riverbed has been surveyed. Those  
4 areas have been predominantly surveyed. It's primarily  
5 areas where -- private lands where the project is  
6 proposed on private lands that have not been surveyed or  
7 where the surveys are perhaps considered not up to  
8 current requirements. And so in order to give you a  
9 direct answer, I'm sorry, I don't know the mileage  
10 specifically, but generally, those are the areas that  
11 have or have not been surveyed.

12 MEMBER HAMWAY: If an historic site is found on  
13 someone's private property, what happens?

14 MR. PETRY: Well, it depends on what is found.  
15 You know, we often see a typical mitigation measure  
16 included in these applications that talks about  
17 unanticipated discoveries and coordination with SHPO or  
18 other agencies, should those discoveries occur. That's  
19 always necessary. That's always, you know, in a  
20 situation like this, always the practice. But, again, on  
21 private lands it's really largely up to the private  
22 landowner in those situations.

23 In a situation like this, where APS is the  
24 developer, and, you know, as part of the CEC application  
25 we would expect to have that typical mitigation included,

1 there are steps that they would take if those sorts of  
2 resources were uncovered or were found during  
3 construction or prior to construction.

4 MEMBER HAMWAY: Okay. Thanks.

5 MR. PETRY: You bet.

6 What we found was that the project preferred  
7 route and the subroutes are not expected to have any  
8 adverse impacts on cultural resources. And the project  
9 is considered environmentally compatible with cultural  
10 resources.

11 BY MR. DERSTINE:

12 Q. Okay. I think your next area of analysis were  
13 scenic areas and visual resources, correct?

14 A. (MR. PETRY) That's right.

15 And I can step through this and start by giving  
16 the Committee an overall understanding about how we went  
17 or how we completed this visual resource analysis, and,  
18 you know, provide some background upon how and why we  
19 developed the visual simulations.

20 As the Committee members have heard from me  
21 previously and seen from other applicants, we completed a  
22 visual resource study which involved characterizing the  
23 existing scenery, scenic quality, and sensitive viewers  
24 within the study area, and then describing the project's  
25 potential for modifying that landscape. The existing

1 scenery near the project is consistent with the developed  
2 and developing nature of the study area. The area  
3 immediately around the project includes views typical of  
4 a variety of urban or suburban pseudoagricultural areas,  
5 whereas land next to the project is dominated by existing  
6 utility and industrial infrastructure, and including the  
7 numerous high-voltage transmission lines, electrical  
8 substations, as well as some of the agricultural,  
9 residential and, you know, some open space or parks uses.  
10 In addition to those above-land uses we, of course, have  
11 the Phoenix-Goodyear Airport and Union Pacific Railroad,  
12 as well as the regional transportation corridors.

13 The study area also encompasses portions or all  
14 of the existing Runway, Broadway, and Rudd substations  
15 and, of course, that existing transmission  
16 infrastructure. And the heights of all of those  
17 features, along with the co-located density of existing  
18 infrastructure make them highly visible and dominant  
19 features within many portions of the landscape as they  
20 intersect with the study area.

21 The scenic quality within the study area is  
22 considered relatively low, based on the general lack of  
23 visual and interesting land forms and the prominence or  
24 dominance of the existing build features. For the  
25 purpose of our visual impact analysis, we identified

1 three types of sensitive viewers: That would be  
2 residential, recreational, and travel route viewers.

3 We'll start with residences -- pardon me -- the  
4 residences within the study area or views from residences  
5 within the study area would vary from unobstructed to  
6 partially or fully obstructed, based on their viewing  
7 location; however, most views of the project from  
8 residential areas will be partially obstructed by  
9 existing features, such as trees, existing subdivisions,  
10 commercial/industrial features, et cetera.

11 Views from the project -- or of the project from  
12 recreation areas within the study area vary also from  
13 partly obstructed to fully obstructed. Most views,  
14 again, would be partly obstructed by a lot of the  
15 existing infrastructure.

16 Views from travel routes within the study area  
17 also vary from partially or fully obstructed, based on  
18 viewing location. What we found with travel route  
19 viewers, of course, is that proxim- -- or, excuse me,  
20 that duration of view is typically much shorter, they're  
21 traveling through the project area, so have a much  
22 shorter duration of view.

23 In order to illustrate the project's visual  
24 characteristics, again, we completed visual simulations  
25 from five different key observation points, or KOPs,

1 within the study area. These simulations are based on  
2 project location, an existing site data, and were  
3 developed using a 3D modeling software. And, again, can  
4 be found in Exhibit G of the CEC application. The  
5 locations of those five KOPs were selected in order to  
6 identify locations with the greatest potential for visual  
7 impact, resulting from the project.

8 I'll point your attention to the map on the  
9 right screen right now. This shows the locations of  
10 those five KOPs, or key observation points, indicated in  
11 little blue arrows, and we'll go through each of these  
12 simulations here in just a moment one by one.

13 The first simulation was developed from KOP 1,  
14 or Key Observation Point 1, and this is a KOP located --  
15 it's a point that I located -- or excuse me, that I  
16 pointed out earlier during that virtual tour. This is  
17 the location of the highest visual impact to residences.  
18 This is the location near that cluster of approximately  
19 four residences along Litchfield Road, near where the  
20 project would extend north and south on Litchfield and  
21 then east and west along that pipeline alignment before  
22 reaching the Agua Fria River.

23 You can see --

24 MEMBER LITTLE: Mr. Chairman?

25 CHMN KATZ: Yes, Member Little.

1           MEMBER LITTLE: I'm sorry, I didn't mean to  
2 interrupt. I did have a question about KOP 1, when  
3 you're finished with your presentation for this  
4 observation point.

5           CHMN KATZ: Okay.

6           MR. PETRY: Thank you, Member Little. Be happy  
7 to answer that question. Hopefully, I can answer it in  
8 my narrative here before you have to ask it.

9           So in this -- in this visual simulation, the top  
10 photo, the upper left photo, of course, represents that  
11 existing condition as you would see it today, near the  
12 point where we will have a route to our stop. You can  
13 see we are looking to the north, northeast, and in the  
14 foreground you see Litchfield Road running north to south  
15 on the left and then the alignment of the water pipeline  
16 running east to west, and sort of to the right.

17           In the middle ground you see what is the STACK  
18 Data Center site, currently an agricultural field. In  
19 the lower image you see all of those same features, but  
20 with the project's preferred route added in. You can see  
21 where the transmission line would run along the east side  
22 of Litchfield Road on that STACK Data Center parcel, and  
23 then would extend to the east along the northern portion  
24 of that water pipeline.

25           CHMN KATZ: You indicated that this would have

1 the greatest impact upon the residential, where are those  
2 four residences?

3 MR. PETRY: Those four residences would be  
4 located to the right of the image. In the far right of  
5 the image, you can see some posts and a fence line.  
6 Those posts and fence line represent the northern  
7 boundary of those residential parcels located to the  
8 south. And so this actually -- this is representative of  
9 a view adjacent to those homes closer to the roadway, the  
10 view from those homes would actually be further to the  
11 south and screened a bit by some of the existing  
12 vegetation on their site, but we, again, selected this  
13 location to try to show, to try to truly illustrate what  
14 the worst potential visual impact would look like.  
15 That's why we wanted to model this from this location.

16 BY MR. DERSTINE:

17 Q. And again, there's four residents that are right  
18 there, who are, I guess, off the screen, but they, if I'm  
19 standing in the front of those four homes, this would be  
20 my view in terms of the simulating condition on the  
21 bottom?

22 A. (MR. PETRY) Largely, yes. I would modify that  
23 statement just a bit by noting that most of those homes  
24 are oriented to the west, most of them are oriented to  
25 the west. The fronts of their homes face or front

1 Litchfield Road, and they're on the east side, so they're  
2 looking more to the west. This would be their view to  
3 the north, which would not be their standard orientation.

4 MR. DERSTINE: Okay.

5 MEMBER HAMWAY: Mr. Petry, is this south of  
6 Section 1310; is that where we're talking about?

7 MR. PETRY: Yes.

8 MEMBER HAMWAY: Thank you.

9 MR. PETRY: And I believe we had a question from  
10 Member Little as well, I'd love to answer it.

11 MEMBER LITTLE: Yes, thank you, Mr. Petry. In  
12 the application, the first simulation condition that you  
13 show shows the project, poles basically, but without the  
14 data center buildings in there. And when I first looked  
15 at that I was -- I mean, that's pretty impactful. But  
16 then when you look at the one that simulates the  
17 buildings that I assume are planned to be built for the  
18 data center, it's not quite so impactful, because the  
19 buildings basically block whatever view there is of the  
20 distance.

21 Do you know -- and I know that we have  
22 absolutely no jurisdiction whatsoever over the, the data  
23 center buildings or what is built there -- I'm assuming  
24 that they own that property, that data center that plans  
25 to build there; is that correct?

1 MR. PETRY: That is my understanding, yes.

2 MEMBER LITTLE: And I'm just wondering whether  
3 you heard at all from any of those landowners with  
4 respect to the data center or the transmission line?

5 MR. PETRY: We did not, no. To your earlier  
6 point around the visual simulations around the CEC  
7 application, I appreciate you bringing that up and it is  
8 worth mentioning to the Committee that in CEC application  
9 under Exhibit G, in fact, specifically page G-5 for all  
10 of these simulations, we have included versions that  
11 include the proposed data centers, just for additional  
12 context, in order to show what it would look like at full  
13 build-out with the project and those data centers  
14 constructed.

15 We've also -- and on G-5 -- page G-5 on the CEC  
16 application, APS-1 -- shown what it would look like  
17 without those data centers and with just the project,  
18 understanding that the purpose of the project is to serve  
19 those future data centers. We wanted to show the full  
20 context of what the project on its own would look like  
21 and what the project with full data center build-out  
22 within the area would look like as well.

23 If there are no further questions or comments on  
24 KOP 1, I can move on to additional photo simulations.  
25 Thank you.

1 MEMBER HAMWAY: Before you leave there, just to  
2 follow up on Member Little, so you didn't hear from any  
3 of those four residents south of 1310?

4 MR. PETRY: We did not.

5 MEMBER HAMWAY: Okay. Are you sure they got the  
6 notice?

7 MR. PETRY: Oh, we checked and rechecked to make  
8 sure that they were notified of the project. We also  
9 have public notice signs located all around the project  
10 area there.

11 MEMBER HAMWAY: Okay.

12 MR. PETRY: We were -- we made sure we were  
13 reaching out to the necessary important people.

14 MEMBER HAMWAY: Thanks.

15 MR. PETRY: You bet.

16 BY MR. DERSTINE:

17 Q. I guess to that point, Mr. Petry, do we know  
18 whether or not those four residents that are there, is  
19 that property possibly subject to some sort of future  
20 development, that those homes won't always be there, that  
21 that land may be used for, you know, the turnover to this  
22 commercial/industrial uses that are occurring in this  
23 area?

24 A. (MR. PETRY) It's very possible. I can't  
25 speculate as to what those homeowners will or may want to

1 do with their properties in the future, but we do see, as  
2 we saw on those prior future land use maps, and as  
3 Ms. Casteel mentioned, this whole area is proposed for  
4 future industrial and/or commercial development, and it's  
5 coming to fruition. These areas, particularly where  
6 Member -- Member Hamway saw all the agricultural lands  
7 are proposed for conversion to industrial uses in the  
8 future. And with all of these data centers coming in and  
9 additional industrial infrastructure, as well as the  
10 future State Route 30 ADOT highway going through this  
11 area, we do expect that much of this area will convert  
12 from these past land uses into future industrial or  
13 utility uses.

14 Q. And then the distance from those homes to the, I  
15 guess, the closest structure, what did you say that was?

16 A. (MR. PETRY) Approximately 300 feet.

17 Q. Okay. And the -- you indicated the homes are  
18 oriented in a manner in which they're facing, so the  
19 front door is facing away from the view that we're seeing  
20 in KOP 1; is that correct?

21 A. (MR. PETRY) Yes. Those northernmost homes  
22 within that cluster of homes are oriented to Litchfield  
23 Road. It's not to say that when they're hanging out in  
24 their side yard or spending time, you know, in their out  
25 structures -- because there are some agricultural

1 facilities associated with those residences as well --  
2 it's not to say that they won't be able to see the  
3 project, but I do think that on the northern portion of  
4 their parcel, there is some screening present that would  
5 lessen those visual impacts nonetheless. We're not  
6 denying anything.

7           There is, in fact, a proposed transmission line  
8 relatively close to these homes, and we have identified  
9 what that impact would look like in KOP 1.

10       Q.     And when you say there's agricultural activities  
11 associated with those homes, what does that mean?

12       A.     (MR. PETRY) I mean on the northern portion of  
13 that residential parcel, particularly the northernmost  
14 residential parcel, there seems to be a corral facility  
15 of some sort or a small stockyard on that northernmost  
16 portion of their -- of their parcel.

17       Q.     Okay. Thanks. Thanks for that detail.

18       A.     (MR. PETRY) You bet.

19           So now we'll take a look at KOP 2, this is Key  
20 Observation Point 2. And what this shows is the proposed  
21 Microsoft Data Center, and represents the travel route  
22 viewers, with a view from the intersection of Maricopa  
23 County 85 and West Lower Buckeye Road. This is located  
24 essentially on the sort of northwest -- or northeastern  
25 portion of the Microsoft Data Center site and, again, is

1 looking to the southwest.

2 In that upper photo representing the existing  
3 conditions, on the far right of the screen you can see  
4 Maricopa County 85 running to the southwest to the  
5 northeast. And in the foreground you see some of the  
6 vacant parcel -- currently vacant parcel, as well as some  
7 of the existing distribution voltage infrastructure.

8 In the simulated condition photo in the lower  
9 left, you see those same features, but you also see the  
10 preferred route. You see some of the structures with the  
11 double-circuit build, and then the 69kV underbuild there  
12 as well. You also see portions of the Microsoft Data  
13 Center site simulated in the background as well.

14 CHMN KATZ: Is that, like, that white  
15 rectangular area --

16 MR. PETRY: Yes.

17 CHMN KATZ: -- that isn't very visible?

18 MR. PETRY: Yes. And this location is  
19 representative of what we would consider a lower impact  
20 to the travel route viewers traveling along MC85. And,  
21 again, travel route viewers have a little lower  
22 sensitivity than what we consider for residential or  
23 recreational viewers, mainly due to the duration of their  
24 view, shorter duration of view.

25 The next location would be KOP 3, or Key

1 Observation Point 3. And this represents the residential  
2 views from the Litchfield Mountain Homeowners  
3 Association, and travel route near West Lower Buckeye  
4 Road, facing southwest toward the project. And in this  
5 image, again, in the upper image, you can see a view  
6 along East Lower Buckeye Road looking to the southwest,  
7 and you can see some of the Stream Data Center sites  
8 located in the middle ground along with the roadway in  
9 the foreground. In the lower image, you can see the same  
10 features, but with the Stream Data Center site and some  
11 of the preferred route infrastructure modeled in.

12 Again, this location represents impacts to the  
13 residential area -- excuse me -- located near West Lower  
14 Buckeye Road and would represent a higher impact to  
15 residential views at this location.

16 CHMN KATZ: And that series of lines, that's not  
17 fencing, those are the high-voltage transmission lines,  
18 correct?

19 MR. PETRY: Are you referring to this,  
20 Mr. Chairman?

21 CHMN KATZ: Yes.

22 MR. PETRY: That would be the fence line.

23 CHMN KATZ: Okay. That's the fence line, that's  
24 not the --

25 MR. PETRY: Correct.

1 CHMN KATZ: -- the towers?

2 MR. PETRY: And in this location, the towers  
3 would be a little more difficult to see --

4 CHMN KATZ: I see them.

5 MR. PETRY: -- and little further back. Right  
6 here.

7 We'll next look at KOP 4, or Key Observation  
8 Point 4, and this represents recreational views from the  
9 community pool and park along South 125th Avenue. And  
10 this is just to orient the Committee with this location,  
11 the map on the upper right screen. This is a view from  
12 the far eastern side of the Agua Fria River.

13 We had previously shown where Subroute D would  
14 extend to the far eastern side of the Agua Fria River,  
15 and we mentioned that it would be a little closer to  
16 residences existing and proposed or developing  
17 residences, as well as a recreational facility on that  
18 far east side of the river, and that's the location from  
19 where this photo was taken. This is a photo simulation  
20 of the preferred route from this location. And in that  
21 upper image, you can see where we're looking to the west  
22 across the Agua Fria riverbed, you can make out some of  
23 the existing lattice structures. Those would be the  
24 existing TEP structures on the far west side of the  
25 riverbed. It's also hard to make out, there's also the

1 existing 69kV line that travels along the riverbed there.  
2 In the lower image, you can see the same facilities, but  
3 with the preferred route added in, and this would  
4 include, again, the co-location of that existing 69 line  
5 onto the proposed 230kV facilities on the far west side  
6 of the river.

7 BY MR. DERSTINE:

8 Q. What's the distance that you're simulating there  
9 from -- to see the -- well, to the structures, the  
10 proposed line?

11 A. (MR. PETRY) A little less than a half mile from  
12 this photo location to the preferred route.

13 Q. And is there a reason you -- you created this  
14 simulation from the east side of the Agua Fria River, as  
15 opposed to putting it on the west side, where it would be  
16 closer to those structures?

17 A. (MR. PETRY) Yes, there is. As I mentioned, this  
18 is a location where a proposed residential development is  
19 occurring. And also a location where a park affiliated  
20 with that residential development will be located.  
21 Because of those more sensitive land uses, sensitive to  
22 visual resources, we wanted to identify a location on the  
23 eastern side of the project area that would be  
24 representative of views, particularly in areas of higher  
25 sensitivity.

1           We had identified other locations with close  
2 proximity to the preferred route, particularly relative  
3 to residential areas, both on the northern portion and  
4 then, as we mentioned, with KOP 1 in the southwestern  
5 portion of the project area. So we wanted to take sure  
6 that we had adequate coverage throughout the study area  
7 for those visually sensitive areas.

8       Q.     All right. Thank you for that.

9       A.     (MR. PETRY) You bet.

10           The last location we'll look at here would be  
11 KOP 5, Key Observation Point 5, and this represents  
12 recreational views, as well as residential views from an  
13 area along the Agua Fria River trail, adjacent to MC85  
14 and West Buckeye Road. And as you can see in this upper  
15 right image, this is a view looking to the west, and  
16 we're looking out right along, basically, the northern  
17 portion of the preferred route, where it would  
18 interconnect into the existing 230kV infrastructure.

19           In that upper image, you can see this is a  
20 little bit of a drainage area. We're looking essentially  
21 due west here, to our right is that trail, further to our  
22 right would be the corner of a residential development  
23 here. To our left would be -- or excuse me, Buckeye Road  
24 or MC85, and you can see the railroad crossing, you can  
25 see the bridge trestles there, as well as some of the

1 existing transmission infrastructure in the middle  
2 ground.

3 In the lower image, you see the same facilities  
4 but with the project facilities added in. And this would  
5 be the location where the cut-in structure would be  
6 sited. You can see right here this is that more  
7 interesting structure that Mr. Eich described earlier,  
8 that cut-in structure, in-line, cut-in structure. And  
9 that's where this would be located.

10 CHMN KATZ: Let me just interrupt. We've been  
11 going about an hour and a half, does it make sense to  
12 take a 15-minute break and I'll also ask how our court  
13 reporter's hands are doing and head is doing, but we  
14 could take a 15-minute break and be back in at about a  
15 quarter to 5:00, and go another half and hour, if it  
16 makes sense to do that before we take another break for  
17 what will likely be an uneventful public session.

18 MR. DERSTINE: Yeah, I think that's -- happy to  
19 do that, Mr. Chairman. Maybe Mr. Petry can wrap up. I  
20 think he's got a slide or two to share his conclusions on  
21 the visual impacts of the project and if we can take a  
22 break at that point.

23 CHMN KATZ: Okay. And it's now just a little  
24 bit past 4:30, but I'd like to be able to sit down by  
25 4:45, plus or minus a minute or two, so we don't linger

1 too long in the hallway and chat, and then we'll have  
2 another break at no later than 5:15.

3 MR. DERSTINE: Sounds good.

4 CHMN KATZ: We are in recess.

5 MR. DERSTINE: Okay.

6 (Recessed from 4:30 p.m. until 4:45 p.m.)

7 CHMN KATZ: Looks like we have everybody  
8 virtually and in person present. You may begin, and  
9 we'll see where we are at for the next 15 or 20 minutes.  
10 For those of us who are here, I'm going to head  
11 home, but there is a dinner, and we might eat it before  
12 public comment or after, or even during it, because I  
13 doubt we're going to have very much, if any. But,  
14 anyway, go ahead.

15 MR. DERSTINE: Thank you, Mr. Chairman. Yeah, I  
16 think we'll be at a good breaking point the section after  
17 Mr. Petry gives us his conclusions on visual resources  
18 will be recreation, and then we can cover noise maybe  
19 briefly, but I think maybe 5:00 might be a good, or close  
20 thereto, might be a good stopping point and we can break  
21 for dinner.

22 CHMN KATZ: That's fine, 5:00 or a few minutes  
23 past, whenever is convenient.

24 BY MR. DERSTINE:

25 Q. All right. Mr. Petry, I think you covered all

1 the KOPs, and after you had laid the foundation for all  
2 those simulations in terms of the visual resources, why  
3 don't you give the Committee your conclusions on the  
4 visual impacts of the project.

5 A. (MR. PETRY) Sure. We found -- we, SWCA, found  
6 that overall the project structures would be similar in  
7 line, form, color, texture, and scale, as compared to the  
8 existing transmission infrastructure at and around the  
9 project study area, including the Runway, Broad, and Rudd  
10 substations.

11 We found that the project would result in a low  
12 impact to scenery. And the impacts to sensitive viewers  
13 would range from low to high as a result of the perceived  
14 contrast due to intervening visual elements.

15 Similarities with the existing transmission  
16 infrastructure and the duration of the view.

17 Based on our assessment, the preferred route and  
18 subroutes will have overall minimal impacts to scenic and  
19 visual resources and are environmentally compatible --  
20 compatible with scenic and visual resources within the  
21 area. The preferred route will minimize the visual  
22 impacts, as compared to subroutes, because it maximizes  
23 the proposed line's proximity to existing transmission  
24 infrastructure, and reduces the proximity to recreational  
25 facilities and number of road crossings.

1 Q. The highest visual impact captured by the KOP 1,  
2 is that -- is that the simulation that maybe presents the  
3 highest impact?

4 A. (MR. PETRY) Yes.

5 Q. And will the Committee have an opportunity to  
6 see that area tomorrow on our tour?

7 A. (MR. PETRY) Yes. Stop three of our tour will be  
8 right adjacent to where that photo was taken.

9 Q. Okay. Thank you.

10 All right. Anything else you wanted to add on  
11 your visual analysis?

12 A. (MR. PETRY) No, thank you. But I would be happy  
13 to answer any questions Committee members might have.

14 CHMN KATZ: Any questions by the Committee?

15 (No response.)

16 CHMN KATZ: It appears not. So please go ahead  
17 with your next line of questioning.

18 BY MR. DERSTINE:

19 Q. So, Ms. Casteel, let's -- let's cover  
20 recreation -- recreational resources in the area, and if  
21 there's any, whether or not the project is compatible  
22 with those resources?

23 A. (MS. CASTEEL) Yes. So we conducted data  
24 collection by reviewing general plans, recreational  
25 plans, as well as aerial photographs. The existing

1 recreational uses include a variety of City and  
2 residential parks, the biggest of which is this Festival  
3 Fields Park with the City of Avondale, but there's also  
4 smaller pocket parks within residential communities.

5           There is a golf course here north of Buckeye  
6 Road, and the Goodyear Ballpark can be seen here just  
7 west of the airport, so just on the outskirts of the city  
8 area. The Agua Fria River does provide passive  
9 recreation opportunities, such as nonmotorized, unpaved  
10 trails along the river corridor and its banks. There's  
11 also a planned Maricopa County Sun Circle Trail that will  
12 run along the Agua Fria River within the study area, and  
13 that, when constructed, will provide for running, biking,  
14 equestrian use, other nonmotorized activities, and that  
15 would be as seen here in this blue Agua Fria River  
16 corridor.

17           During construction of the project there would  
18 be an anticipated temporary access limitations, mostly  
19 for those dispersed recreation activities within the Agua  
20 Fria River. The other recreation activities, the  
21 established facilities, such as Festival Fields Park and  
22 Goodyear Ballpark would not be directly affected by the  
23 project, but some construction, as it occurs, may lead to  
24 some indirect transportation impacts with, you know, if  
25 there is people traveling to some of these locations

1 through the project area, they may be indirectly impacted  
2 by that. But there would be other access routes, so no  
3 direct impacts to the established recreation facilities.

4 Q. So, I guess, going back to that one point where  
5 you said there may be impacts, are you just talking about  
6 there may be some rerouting for, you know, street traffic  
7 and that sort of thing when the poles are being placed  
8 and on certain segments that may border on, say, Buckeye  
9 Road or some of these other arterial roads?

10 A. (MS. CASTEEL) Correct. There may be lane  
11 restrictions or some smaller roads may be temporarily  
12 closed during certain pole installations, but overall  
13 temporary, short-term impacts during construction, and  
14 only in select areas. And then once those poles are  
15 installed, reopening those corridors, and there wouldn't  
16 be any major closures or detours that we are currently  
17 aware of. As design progresses, we would know more, but,  
18 yeah, just standard construction impacts to access along  
19 those roads.

20 Q. Okay. So you're about to get to your  
21 conclusions on whether or not the project is compatible  
22 with the resources in the area.

23 A. (MS. CASTEEL) Yes. So our analysis concluded  
24 that the preferred route and subroutes would have either  
25 negligible or minor impacts to recreation, the Subroute D

1 is the one that would have slightly higher impacts just  
2 because of its additional area within the Agua Fria River  
3 corridor. So there would be additional poles introduced  
4 to the corridor, and it would be slightly longer than the  
5 preferred route, and so would have slightly higher  
6 impacts to that dispersed recreation use within the river  
7 corridor, but overall, the project, including the  
8 preferred route and subroutes, would be environmentally  
9 compatible with recreation resources.

10 Q. Okay. And as we've covered through the  
11 testimony and my comments, we're not asking the Committee  
12 to approve Subroute D and seeking only approval of the  
13 preferred route, correct?

14 A. (MS. CASTEEL) Correct.

15 Q. Yeah. All right.

16 Noise. Mr. Wiley, you're our noise expert, as  
17 well as any potential interference with communication  
18 signals, such as radio or cell towers.

19 A. (MR. WILEY) So APS did do a noise analysis on  
20 various segments of the line, and if I orient you to the  
21 right-hand screen, you'll see two different plots, as  
22 well as a map showing different segments. In the plots  
23 you'll see four different colors. Those represent the  
24 four different segments, as shown on the map on the  
25 right-hand side, the different segments are based on

1 design characteristics of the line itself.

2           So as you see, based on the two plots, APS did a  
3 noise analysis based on two different types of weather  
4 conditions. One is fair weather conditions. So under  
5 fair weather conditions, the audible noise generated by  
6 the line would be around 17 decibels. You can see that  
7 from this top plot here, and at the bottom plot you'll  
8 see the audible noise under light rain conditions. Under  
9 this scenario, the audible noise is near 30 decibels. To  
10 put that into perspective, 40 decibels would be  
11 equivalent to a soft whisper from about 5 feet away, and  
12 that's shown on this thermometer chart here, which was  
13 provided by OSHA.

14           So this line is located in an area that's  
15 heavily industrial, some residential and agricultural  
16 areas with existing power lines. The new lines are  
17 expected to be consistent with the noise levels of the  
18 existing lines in the area, and we do expect only minimal  
19 noise impacts due to this project.

20       Q.     So your noise analysis here looks at and tries  
21 to gauge the noise that I would hear standing what  
22 distance from the new -- the proposed transmission line?  
23 I guess the arc shows that the noise level is at highest  
24 when I'm directly under the conductor, and then it  
25 dissipates as I move away; is that what the graph shows?

1       A.       (MR. WILEY) That's correct. This bottom axis  
2 here, the X axis, shows the distance from the center  
3 line, so right at the base of the structure is where you  
4 can expect the largest noise impact. And as you go away  
5 from that out of the right-of-way that significantly  
6 decreases.

7       Q.       And why is it that the transmission I would hear  
8 more, although it's, I think you indicated it's a soft  
9 whisper, is that what I would hear? Why would I hear  
10 more during rain conditions, as opposed to dry weather?

11      A.       (MR. WILEY) You may have noticed even driving  
12 under lines during foggy days or during a light rain the  
13 noise is a lot louder, that's due to the water being in  
14 the air and ionizing with the line, based on the electric  
15 field that's produced by the lines.

16               MEMBER GRINNELL: Chairman?

17               CHMN KATZ: Yes, Member Grinnell.

18               MEMBER GRINNELL: Yeah, you've got an airport  
19 right here. What kind of aircraft are flying in there?  
20 Any jets or is the facility not capable of handling jets?  
21 And in comparison, how much more or how much less noise  
22 would this project generate with relationship to or in  
23 comparison to the airport?

24               MR. WILEY: Yes, thank you for that question. I  
25 don't know the specific types of planes that fly in

1 there. Living nearby, I know they have very large  
2 aircraft that do land in that Phoenix-Goodyear Airport;  
3 however, the noise expected from these lines is much,  
4 much less than you would expect from the aircraft.

5 Again, under a light rain condition, where you  
6 would expect them to be a little noisier than normal,  
7 you're still looking at a little less than a soft  
8 whisper.

9 MEMBER GRINNELL: Thank you.

10 BY MR. DERSTINE:

11 Q. I imagine on top of the operational noise, there  
12 will be some noise during the construction of the  
13 project, but that's only a short duration, correct?

14 A. (MR. WILEY) Correct.

15 Q. What about -- is there any anticipated  
16 interference from the Runway Project with cell towers or  
17 any radio communications?

18 A. (MR. WILEY) No negative impact expected.

19 Q. Okay. All right.

20 Well, with Mr. Wiley covering the noise impacts,  
21 I think it makes sense to, let's go back to our SWCA  
22 experts and have you kind of wrap up the environmental  
23 conclusions regarding the project.

24 A. (MR. PETRY) Certainly.

25 The project conforms with the applicable

1 management plans, including the City of Goodyear, City of  
2 Avondale general plans, and the Maricopa County  
3 comprehensive plan. The project is located in a  
4 developed area, among existing large-scale  
5 infrastructure, and will be co-located with existing  
6 Broadway to White Tank 69kV transmission line.

7           The project will have minimal effects to  
8 existing and future land uses, biological, cultural,  
9 visual, and recreation resources and would result in a  
10 minimal overall environmental impact. Based on our  
11 analysis and reporting, the project is environmentally  
12 compatible with the factors set forth in ARS 40-360.06,  
13 and is consistent with previous projects approved by the  
14 Siting Committee.

15           The preferred route is supported by the City of  
16 Goodyear, the City of Avondale, and data center  
17 customers. It minimizes visual impacts to sensitive  
18 residential and recreation area views. It minimizes land  
19 uses impacts to non-data center landowners, and it  
20 minimizes impacts to disperse recreation within the Agua  
21 Fria River, since it is co-located with the existing 69  
22 infrastructure.

23       Q.     Does that conclude your testimony, your and  
24 Ms. Casteel's testimony, on the environmental analysis  
25 for this project?

1 A. (MR. PETRY) Yes, it does.

2 A. (MS. CASTEEL) Yes.

3 MR. DERSTINE: And, Mr. Chairman, with that, I  
4 would suggest that we break.

5 CHMN KATZ: That's fine. And what remains after  
6 our tour is primarily the public outreach issues?

7 MR. DERSTINE: Public outreach, and then the  
8 formal notice requirements, correct.

9 CHMN KATZ: Okay. And we'll see where we're at,  
10 and we definitely should be able to review the CEC, if  
11 not late tomorrow, by early on Wednesday.

12 MR. DERSTINE: Wednesday, yes.

13 CHMN KATZ: Okay. We do stand in recess.

14 (Recessed from 5:00 p.m. until 5:35 p.m.)

15 CHMN KATZ: It is now about 5:35. There are no  
16 members of the public in our hearing room. And there are  
17 no members of the public that have contacted us  
18 virtually. So we are going to recess until 9:00  
19 tomorrow. And I look forward to taking our tour, for  
20 those of us who will be joining us on that tour, and then  
21 at about 1:00 we'll resume the evidentiary hearing.

22 I can't tell when we'll finish, but I have a  
23 feeling that we might have to come in on Wednesday to  
24 review the CEC and approve or disapprove. So anyway,  
25 everybody have a safe evening. If you're staying in the

1 hotel, relax. If you're driving, be safe. We'll see you  
2 tomorrow.

3 We do stand in recess.

4 (Proceedings recessed at 5:35 p.m.)

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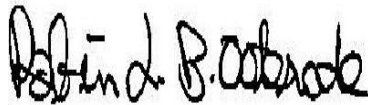
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1 STATE OF ARIZONA )  
2 COUNTY OF MARICOPA )  
3

4 BE IT KNOWN that the foregoing proceedings were  
5 taken before me; that the foregoing pages are a full,  
6 true, and accurate record of the proceedings all done to  
the best of my skill and ability; that the proceedings  
were taken down by me in shorthand and thereafter reduced  
to print under my direction.

7 I CERTIFY that I am in no way related to any of  
8 the parties hereto nor am I in any way interested in the  
outcome hereof.

9 I CERTIFY that I have complied with the ethical  
10 obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206  
11 (J)(1)(g)(1) and (2). Dated at Phoenix, Arizona, this  
12 17th day of November, 2022.

13 

14 \_\_\_\_\_  
15 ROBIN L. B. OSTERODE, RPR  
16 CA CSR No. 7750  
AZ CR No. 50695

17 \* \* \* \* \*

18 I CERTIFY that Glennie Reporting Services, LLC,  
19 has complied with the ethical obligations set forth in  
ACJA 7-206(J)(1)(g)(1) through (6).

20  
21  
22 

23 \_\_\_\_\_  
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