

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

BEFORE THE ARIZONA POWER PLANT  
AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF )  
ARIZONA PUBLIC SERVICE COMPANY, IN ) DOCKET NO.  
CONFORMANCE WITH THE REQUIREMENTS OF ) L-00000D-21-0257-  
ARIZONA REVISED STATUTES 40-360, ) 00190  
ET SEQ., FOR CERTIFICATES OF )  
ENVIRONMENTAL COMPATIBILITY FOR THE ) LS CASE NO. 190  
WESTWING 230 KILOVOLT (KV) )  
INTERCONNECTION PROJECT, WHICH )  
AUTHORIZES THE CONSTRUCTION OF A NEW )  
SINGLE-CIRCUIT 230KV TRANSMISSION )  
LINE ORIGINATING AT THE WESTWING )  
SUBSTATION (SECTION 12, TOWNSHIP 4 )  
NORTH, RANGE 1 WEST) AND TERMINATING )  
AT THE PLANNED AES BATTERY ENERGY )  
STORAGE SYSTEM SUBSTATION (SECTION 1, )  
TOWNSHIP 4 NORTH, RANGE 1 WEST), )  
LOCATED IN PEORIA, MARICOPA COUNTY, )  
ARIZONA. )

VOLUME III  
(Pages 373-550)

At: Phoenix, Arizona  
Date: August 25, 2021  
Filed: August 30, 2021

REPORTER'S TRANSCRIPT OF PROCEEDINGS

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

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

1 INDEX TO PROCEEDINGS

2	ITEM	PAGE
3	Closing Statements	
	AES by Ms. Grabel	497
4	ACC Staff by Ms. Scott	499
	APS by Mr. Derstine	500
5		
	Deliberations	508
6		
	Final Votes	
7	CEC-1	533
	CEC-2	540
8		

9 INDEX TO EXAMINATIONS

10	WITNESSES	PAGE
11	JASON SPITZKOFF, KEVIN DUNCAN, DEVIN PETRY, and DANIEL CLARK	
12		
	Direct Examination by Mr. Derstine Continued	383
13	Direct Examination by Ms. Spina Continued	416
	Direct Examination by Mr. Derstine Continued	421
14	Cross-Examination by Ms. Scott	460
	Direct Examination by Ms. Spina	486
15		

16 INDEX TO EXHIBITS

17	NO.	DESCRIPTION	IDENTIFIED	ADMITTED
18	APS-1	Application for CEC	35	495
19	APS-2	Witness Summary of Jason Spitzkoff	29	495
20				
	APS-3	Witness Summary of Kevin Duncan	36	495
21				
	APS-4	Witness Summary of Devin Petry	38	495
22				
	APS-5	Witness Summary of Daniel Clark	32	495
23				
	APS-6	Witness Presentation Slides	29	495
24				
25				

## 1 INDEX TO EXHIBITS

2	NO.	DESCRIPTION	IDENTIFIED	ADMITTED
3	APS-7	Figure 1A - Proposed Route Map	--	495
4	APS-8	Figure 2A - Requested Corridor Map	--	495
5	APS-9	Affidavit of Publication of Notice of Hearing	400	495
6				
7	APS-10	Proof of Delivery of Application for CEC and Transcripts to Public Locations	--	495
8				
9	APS-11	Proof of Website Posting	--	495
10	APS-12	Proof of Service to Affected Jurisdictions	401	495
11				
12	APS-13	Proof of Posting Notice of Hearing Signs	400	495
13	APS-14	Newsletter, August 20, 2021	406	495
14	APS-15	Summary of Public Outreach Efforts	415	495
15				
16	APS-16	Virtual Open House Slides	407	495
17	APS-17	Proposed Form CEC-1	--	495
18	APS-18	Proposed Form CEC-2	--	495
19	APS-19	Commission Staff Letter	77	495
20	APS-20	APS BESS Safety Requirements	121	495
21	APS-21	System Impact Study	84	495
22	APS-22	Basic BESS Components	33	495
23	APS-23	Red-Line Form of CEC-1 (To Become Chairman's 1)	495	working document
24	APS-24	Red-Line Form of CEC-2 (To Become Chairman's 2)	495	working document
25				

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

INDEX TO EXHIBITS

NO.	DESCRIPTION	IDENTIFIED	ADMITTED
AES-1	Witness Summaries	226	496
AES-2	PowerPoint Presentation	226	496
AES-3	Letter to 27 Residents	263	496
AES-4	WAPA Postcard	259	496
AES-5	Letter to Mr. Kumar from Maricopa County Planning and Zoning, Plan of Development	270	496
AES-6	WAPA Scoping Letter	325	496
AES-7	Citizen Participation Results	381	496
Chairman's 1	Final Form of CEC-1	509	filing pending
Chairman's 2	Final Form of CEC-2	509	filing pending

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 DoubleTree by Hilton Phoenix North,  
5 10220 North Metro Parkway East, Phoenix, Arizona,  
6 commencing at 9:20 a.m. on the 25th of August, 2021.

7

BEFORE: THOMAS K. CHENAL, Chairman

8

ZACHARY BRANUM, Arizona Corporation  
Commission

9

LEONARD C. DRAGO, Department of Environmental  
Quality, via videoconference

10

JOHN R. RIGGINS, Arizona Department of Water  
Resources

11

RICK GRINNELL, Counties, via videoconference

12

MARY HAMWAY, Incorporated Cities and Towns

13

JIM PALMER, Agricultural Interests

14

PATRICIA NOLAND, General Public

15

JACK HAENICHEN, General Public

16

KARL GENTLES, General Public

17

18

19

20

21

22

23

24

25

APPEARANCES:

For the Applicant:

SNELL & WILMER, L.L.P.

By Mr. Matt Derstine

One Arizona Center

400 East Van Buren, Suite 1900

Phoenix, Arizona 85004

and

PINNACLE WEST CAPITAL CORPORATION

Law Department

By Ms. Jennifer Spina and Ms. Linda Benally

400 North Fifth Street

Phoenix, Arizona 85004

1 APPEARANCES:

2 For AES Energy Storage, LLC:

3 OSBORN MALEDON  
4 By Ms. Meghan Grabel, Mr. Elias Ancharski  
5 2929 North Central Avenue, 21st Floor  
6 Phoenix, Arizona 85012

7 For the Arizona Corporation Commission Utilities  
8 Division Staff:

9 Ms. Maureen Scott, Deputy Chief Counsel Litigation  
10 and Appeals  
11 Mr. Antonio Arias and Ms. Katherine Kane,  
12 Staff Attorneys, Legal Division  
13 1200 West Washington Street  
14 Phoenix, Arizona 85007  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1 CHMN. CHENAL: Good morning, everyone. Let's  
2 call to order here. Let's get started with the hearing.

3 Before we -- well, we are on the record, but  
4 before we technically go on the record, the air  
5 conditioning is out and the water is out to the  
6 building, but we are told that there is work being done  
7 on the street as we speak. And yes, we were told it was  
8 supposed to be ready by 9:00; it is 9:20, it is not  
9 ready. But I think we have, I have canvassed the room,  
10 and for the most part people believe we should just  
11 proceed with the hearing, take a look and see how we are  
12 in an hour or so from now.

13 So with that, I think there is a few procedural  
14 matters to discuss before we go back on the record. But  
15 I would like to hear from the applicant and the other  
16 attorneys if there is anything we need to discuss before  
17 we go forward.

18 MR. DUNCAN: Mr. Chairman, you and I spoke about  
19 the matter relating to the video, and you were going to  
20 bring that up on the record.

21 CHMN. CHENAL: Right. I guess there was an  
22 inadvertent email that popped up on Mr. Petry's, during  
23 his presentation yesterday. Obviously it was not  
24 transcribed, but it was the -- since this hearing is  
25 being video recorded, I will, and because it is

1 confidential information, I will direct that that  
2 portion of the video recording be fuzzed, or whatever  
3 the word is, the technical term to remove that portion  
4 from the video.

5 Does that satisfy, Mr. Petry, your concerns?

6 MR. PETRY: Yes. Thank you, Mr. Chairman.

7 CHMN. CHENAL: All right. Thank you.

8 Any other procedural matters?

9 MS. SPINA: Just one small one, Mr. Chairman.

10 Witness Clark has two calls this afternoon that he will  
11 need to step out to take. So he will be on those calls,  
12 if possible, between 1:00 and 2:00 p.m. today, and also  
13 between 2:30 and 3:30. He will be in the building, so  
14 if there are any questions for him, we can pull him back  
15 in, and/or we can defer those until he is available.  
16 But I wanted to let you and the Committee know that he  
17 will not be in his seat, but he will be here and  
18 available.

19 CHMN. CHENAL: Sure. And thank you. That's  
20 fine. We will excuse Mr. Clark to take care of his  
21 other requirements, but he will be available and back to  
22 answer any questions or follow-up questions.

23 Any other procedural matters?

24 MS. GRABEL: Mr. Chairman, yesterday AES had a  
25 couple outstanding items. Maybe it makes sense to go



1 ahead and do that now before APS proceeds with its  
2 direct case.

3 CHMN. CHENAL: That would be fine.

4 Is APS okay with that, Applicant?

5 MS. SPINA: Yes.

6 CHMN. CHENAL: Okay, fine.

7 MS. GRABEL: The first, which I raised at the  
8 end of the hearing yesterday, was the environmental  
9 assessment I read a portion of into the record. It is  
10 already in the record. It is attached as Exhibit J to  
11 the CEC application, which is APS-1. And if you look on  
12 the iPad, I pulled it up today, the CEC application, on  
13 page 127 of 199 is the specific portion that I read in  
14 the record. That's labeled Public Scoping, section  
15 1.4.1 of the AES Environmental Assessment.

16 CHMN. CHENAL: And that's which exhibit, exhibit  
17 which to the application? I'm sorry.

18 MS. GRABEL: APS-1. It is Exhibit J to the CEC.

19 CHMN. CHENAL: Exhibit J. Okay, thank you for  
20 that.

21 MS. GRABEL: Sure. And the second is, before  
22 you, you have a document that's marked AES Exhibit 7.  
23 This is something that was presented to, I think it is  
24 required to be presented to the zoning committee and the  
25 Maricopa County Board of Supervisors. It is called the

1 Citizens Participation Results Report.

2 This document contains a lot of information  
3 regarding the outreach that AES did during the zoning  
4 application. You will see nine pages, and unfortunately  
5 it is not chronologically numbered, but nine pages in it  
6 does show that the signs were updated on April 8th to  
7 include the dates of the various hearings. And the  
8 signs were removed on July 19th, 2021, so pretty  
9 recently, and that's 40 days after the last hearing  
10 date.

11 The last seven pages of this exhibit also answer  
12 Member Hamway's questions about the email correspondence  
13 with the people who did communicate. So this document  
14 should address the outstanding questions that the  
15 Committee had regarding the outreach that AES did during  
16 the zoning process.

17 CHMN. CHENAL: Thank you, Ms. Grabel. I am sure  
18 the Committee will -- well, the Committee may have some  
19 questions about the document after they have had a  
20 chance to review it. Thank you for that.

21 Anything else before we turn it back to APS to  
22 continue with their witnesses on the hearing on the line  
23 as opposed to the battery storage area?

24 (No response.)

25 CHMN. CHENAL: Okay. So Ms. Spina, I guess we

1 go back to you, or Mr. Derstine, to go forward with the  
2 witnesses that you have left.

3 MS. SPINA: Yes. Mr. Derstine will pick back  
4 up.

5 CHMN. CHENAL: I will get it right one of these  
6 days. Mr. Derstine, Mr. Derstine.

7 MS. SPINA: Sorry, I think I missed that one.

8 MR. DERSTINE: Sometimes I don't know either.

9 MS. GRABEL: What is it?

10 MR. DERSTINE: I say Derstine, but I am not sure  
11 it is right.

12 MS. SPINA: It's right if that's your --

13 MS. GRABEL: That's your answer.

14

15 JASON SPITZKOFF, KEVIN DUNCAN, DEVIN PETRY,

16 and DANIEL CLARK,

17 Called as witnesses on behalf of APS, having been  
18 previously duly sworn or affirmed by the Chairman to  
19 speak the truth and nothing but the truth, were further  
20 examined and testified as follows:

21

22 DIRECT EXAMINATION CONTINUED

23 BY MR. DERSTINE:

24 Q. Mr. Duncan, are you ready to get to work?

25 A. BY MR. DUNCAN: Good morning. Yes, sir.

1 Q. You covered the -- gave a brief overview of the  
2 project yesterday, and then we transitioned into  
3 Mr. Petry narrating the drone images and the flyover  
4 presentation. So we are going to take it back to you  
5 right now to kind of finish with the project description  
6 and planning.

7 Do you want to revisit briefly the project  
8 elements, and then move on to the planning you undertook  
9 for the project?

10 A. BY MR. DUNCAN: Yes. I will just briefly review  
11 what we spoke about yesterday.

12 So this is, again, a rebuild of an existing APS  
13 owned Calderwood to Westwing 69kV subtransmission line  
14 using double circuit capable 230kV structures, and  
15 adding one 230kV circuit that will connect the AES  
16 substation to the Westwing 230kV portion of the  
17 substation.

18 So for the planning process of this project we  
19 followed a typical line siting process. And using the  
20 potential routing alignment that was provided by AES as  
21 discussed yesterday, we developed a one-mile study area.  
22 This study area is shown on the map on the right here  
23 with this dark band that surrounds the Westwing  
24 substation which is shown here in the center,  
25 approximate center of the study area.

1           It was our feeling that this study area included  
2 all potential reasonable and feasible route  
3 alternatives, including the alternative provided by AES  
4 that would meet the project purpose and need. And  
5 although a singular route is presented, consideration  
6 was given to other potential alternatives. However, due  
7 to many existing land use and ownership constraints,  
8 these alternatives were eliminated.

9           Preliminary environmental study and engineering  
10 constructibility and design review were conducted on the  
11 remaining alternative route to ensure that it was  
12 feasible and constructible. Through this study, the  
13 results of the engineering constructibility review, and  
14 incorporating stakeholder outreach, the proposed route  
15 was identified and detailed evaluation of the route was  
16 undertaken.

17       Q.     You touched on, you said numerous constraints.  
18 Can you just identify -- I mean were the biggest issues,  
19 what, the fact that you have got a number of  
20 transmission lines in the area that, as to some of  
21 those, it just isn't feasible or we are not allowed to  
22 cross under them or over them? Was that part of the  
23 constraint issue?

24       A.     BY MR. DUNCAN: Yes, particularly some of the  
25 500kV lines. Some of those are on land that is owned by

1 SRP. And SRP has very strict rules about line  
2 crossings, and prohibited the placement of any  
3 alternatives that would cross underneath those  
4 particular lines.

5 In addition, with the RV storage and the  
6 existing natural gas pumping station and, of course, the  
7 Westwing substation itself, it limits the number of ways  
8 to go from the AES facility into the Westwing substation  
9 directly.

10 Q. So the existing Calderwood to Westwing 69kV  
11 line, and collocating the new 230kV circuit on that 69kV  
12 line was really the only -- it is the best path, and  
13 turned out to be really the only path, for a route for  
14 this project?

15 A. BY MR. DUNCAN: That is correct.

16 Q. Okay. Let's move on to describing the route and  
17 then the corridor and your right-of-way request.

18 A. BY MR. DUNCAN: Absolutely. So the total length  
19 of the proposed route is about one half mile in length;  
20 to be specific, 0.52 miles.

21 I am going to describe the route using the terms  
22 eastern and western. It was pointed out to me that it  
23 might have made more sense to describe them as northern  
24 and southern, but I am going to use my laser pointer to  
25 point to the map to make sure it was clear what I am

1 speaking to you.

2           So the eastern portion, which amounts to about  
3 .45 miles, including the portion within the Westwing  
4 substation, is the portion that is a rebuild of the  
5 existing 69kV line and will be owned, constructed, and  
6 maintained by APS. This is the portion that is shown on  
7 your map and, then again, is the same map that is on  
8 your placemat that's shown as green and black, I am  
9 sorry, blue and black, coming out of the Westwing  
10 substation north up to the point of demarcation where I  
11 am pointing at right now.

12           The western portion, which amounts to less than  
13 one-tenth of a mile, will be owned, constructed, and  
14 maintained by AES. That is the portion that starts at  
15 the point of demarcation and continues into the AES  
16 substation.

17           This route is the most direct connection from  
18 the AES project to the Westwing substation.

19       Q.     All right. What about the corridor?

20       A.     BY MR. DUNCAN: So we have spoken about the  
21 corridor previously, but as shown on the map on the  
22 right screen, as well as the back side of your placemat,  
23 we are requesting a variable width corridor that ranges  
24 between 100 to 400 feet wide to accommodate specific  
25 constraint areas while still providing flexibility for

1 final design.

2 As has been mentioned before, the area that we  
3 show at 400-foot corridor, which is on the very bottom  
4 portion of the route, is largely within the APS Westwing  
5 substation. The anticipated right-of-way width for this  
6 project will be between 100 and 120 feet.

7 MEMBER NOLAND: Mr. Chairman.

8 CHMN. CHENAL: Member Noland.

9 MEMBER NOLAND: Thank you.

10 Mr. Chairman, Kevin, what is the current  
11 right-of-way for the 69kV line?

12 MR. DUNCAN: The current right-of-way is 60  
13 feet.

14 MEMBER NOLAND: And so you will need 100 to 120?

15 MR. DUNCAN: Yes. The right-of-way will need to  
16 be expanded.

17 MEMBER NOLAND: You said that the 400-foot  
18 corridor is mostly in the Westwing area. Where is it  
19 not in Westwing or APS owned property?

20 MR. DUNCAN: So there is a small -- the outer  
21 fence line is this diagonal line right here. So there  
22 is a small portion here that is technically outside the  
23 substation, although I do believe that that land is  
24 still under the ownership of the substation partners.  
25 So it may not be within the wall of the substation, but



1 it is still owned by the substation owners.

2 MEMBER NOLAND: Thank you.

3 BY MR. DERSTINE:

4 Q. Mr. Duncan, the reason you indicated the  
5 400-foot corridor request is based largely on the need  
6 for flexibility. Is part of that flexibility to be able  
7 to construct the double circuit 230/69kV line next to  
8 the existing 69 line while it remains operational, and  
9 that gives you the flexibility to keep the existing line  
10 in operation until you are ready to patch it over?

11 A. BY MR. DUNCAN: That is correct. It is  
12 particularly important within the substation to have  
13 that flexibility.

14 Q. All right. And the wider right-of-way width is  
15 needed in large part due to the fact that you are moving  
16 from a single circuit 69kV line now to a double circuit  
17 69/230kV line?

18 A. BY MR. DUNCAN: That is correct. When you are  
19 maintaining a double circuit line, it helps to have a  
20 wider right-of-way.

21 Q. All right. Let's talk a little bit about the --  
22 you indicated the two segments. You have described them  
23 as the eastern and western. I call them Segment 1 and  
24 Segment 2. We are requesting two CECs. Let's talk  
25 about that a bit.

1 A. BY MR. DUNCAN: Yes. As I described a moment  
2 ago, because two separate segments of the line will be  
3 owned and maintained by two different companies, we are  
4 seeking separate CECs for the two segments.

5 So the eastern portion of the corridor is to be  
6 a CEC that is issued to APS. And that's, again, the  
7 0.45 mile segment that connects to the Westwing  
8 substation.

9 The portion consisting of the 0.07 mile segment  
10 that connects to the AES substation will be owned and  
11 maintained by AES. This segment is covered by CEC-2.

12 Q. Now, APS is the applicant for this line. If the  
13 Committee sees fit to grant APS the CECs for this  
14 transmission line, the CECs will be held by APS, and so  
15 it is contemplated that at some point in time in the  
16 future APS will transfer CEC-2 to AES to construct that  
17 portion of the line. Do I have that right?

18 A. BY MR. DUNCAN: Yes, that is correct.

19 Q. Okay. Let's talk about how much all this is  
20 going to cost.

21 CHMN. CHENAL: Mr. Derstine, let me ask a  
22 question here just on that point. So AES will pay for,  
23 own, and operate their portion of the line, is that  
24 correct?

25 MR. DUNCAN: I would like to direct that

1 question to Mr. Spitzkoff.

2 MR. SPITZKOFF: Yes, Chairman, they will pay  
3 for, own, and operate that .7 -- sorry, .07 mile  
4 segment. APS will own, operate, and maintain the rest  
5 of it. However, AES will still be paying for a portion  
6 of that line, because it will be joint use with the APS  
7 69 and AES's line. And if there is a future use for  
8 that second 230, they will also join into that.

9 CHMN. CHENAL: And just another question. How,  
10 mechanically, is the CEC transferred? Is it pursuant to  
11 an agreement, one of the agreements we have already  
12 discussed, either the power purchase agreement or  
13 interconnection agreement, or some other way? How is it  
14 transferred, I mean, legally?

15 MR. SPITZKOFF: So I will leave that legal  
16 question, I think maybe Mr. Derstine is the -- or  
17 Derstine -- is the best person to answer that.

18 But it is not involved in the power purchase  
19 agreement or the interconnection agreement. It is more  
20 just the -- really covers authorization to construct and  
21 future obligations, you know, to live up to the  
22 conditions of the CEC. So because APS will not be doing  
23 maintenance or construction of that portion, that's why,  
24 you know, we want to turn over the CEC responsibilities  
25 for that portion over to AES.

1 MR. DERSTINE: There is a provision, and I don't  
2 have it in front of me, but under the rules of procedure  
3 or the Commission rules, for transfer of a CEC. And the  
4 transferee agrees, through that document, to, as  
5 Mr. Spitzkoff indicated, abide by all the terms and  
6 conditions of the CEC itself.

7 CHMN. CHENAL: Member Noland.

8 MEMBER NOLAND: Mr. Chairman, then I don't  
9 understand why AES isn't the person designated on the  
10 CEC-2.

11 MR. DERSTINE: Well, it was a decision in terms  
12 of really packaging the application. And the manner in  
13 which the -- once we landed on the route, and that route  
14 turned out to be largely on the existing APS 69kV line,  
15 it made sense for APS to simply be the applicant and to  
16 obtain the CECs, but to break them into two pieces, as  
17 we have done and as we are requesting that the Committee  
18 do, and allow the future transfer, similar to what was  
19 done in, if you recall, the Hashknife case that we had  
20 that was before the Committee in Flagstaff.

21 In that case, the line was a much longer line,  
22 gen-tie line, getting into the Cholla substation. But  
23 there was a point on that line in which then it came  
24 onto APS property, onto substation property. So APS, it  
25 was important for them to own and be able to construct

1 that portion that came into the substation. And in that  
2 case, the solar developer was -- the applicant requested  
3 two separate CECs, and at some point in time the CEC was  
4 going to be transferred to APS for the portion of the  
5 line that it will own and control and operate. Similar  
6 procedure.

7 MEMBER NOLAND: Long answer to a short question,  
8 but I still don't really understand why AES isn't the  
9 designated company on CEC-2.

10 MR. DERSTINE: Yeah. Ms. Grabel, do you want  
11 to...

12 MS. GRABEL: Another consideration that we had,  
13 because we did talk about whether or not AES should be a  
14 joint applicant, is our portion of the line is very  
15 small -- I believe it is a span and a pole -- and likely  
16 wouldn't have needed to affirmatively apply for a CEC  
17 because it is not a series of structures. And so we  
18 believed, so the Committee had sort of a greater  
19 understanding of the entire context of the transmission  
20 line, it was better to have APS site the entire piece  
21 and then transfer that small portion over to AES.

22 MEMBER NOLAND: Thank you.

23 MEMBER GRINNELL: Mr. Chairman.

24 CHMN. CHENAL: Member Grinnell.

25 MEMBER GRINNELL: Who is going to manage that?

1 Since AES is not a transmission line operator, who is  
2 going to manage that operation for them?

3 MR. DERSTINE: Mr. Spitzkoff can speak to your  
4 question, Member Grinnell.

5 MR. SPITZKOFF: Member Grinnell, AES will do  
6 that, or they may subcontract that out to a firm that  
7 does line maintenance. But AES is a fairly large  
8 organization that, you know, does own utility -- you  
9 know, does have a utility business in parts of the  
10 United States. So, you know, I suspect either internal  
11 or through contract they are more than adequately  
12 situated to maintain that one span.

13 MEMBER GRINNELL: Okay. Thank you.

14 BY MR. DERSTINE:

15 Q. All right. Mr. Duncan, costs.

16 A. BY MR. DUNCAN: Now, I know during Biscuit Flats  
17 that I had a number that was way off in terms of the  
18 right-of-way cost. I assure you this number is correct.

19 The anticipated right-of-way cost for the  
20 proposed route is approximately \$80,000. The expected  
21 cost for the construction of the proposed route is  
22 \$2.6 million.

23 Q. All right. Talk about the structures that you  
24 are going to use to construct the line.

25 A. BY MR. DUNCAN: So the proposed route proposes

1 to use steel monopoles that are similar to existing  
2 structures in the area in design, specifically the  
3 existing 69kV line that is there today, which is  
4 constructed on steel monopoles.

5 The new structures will be double circuit  
6 capable 230kV structures with a double circuit 69kV  
7 underbuild design. Anticipated height of the new  
8 structures, except those that are being used to cross  
9 underneath the 500kV lines, is approximately 155 feet.  
10 Structures may be, for site specific reasons due to the  
11 design not being fully completed, up to 195 feet tall.  
12 For this project, typical span lengths will be between  
13 200 to 400 feet.

14 Q. So I gather that the new structures, and  
15 certainly the double circuit structures, will be taller  
16 than the existing 69kV structures?

17 A. BY MR. DUNCAN: Yes.

18 Q. Okay. Do you have the height of the current  
19 structures?

20 A. BY MR. DUNCAN: Yeah. They are approximately  
21 55 feet.

22 Q. Okay. Mr. Petry, did you use those heights in  
23 terms of modeling the simulation of the line that you  
24 presented to the Committee yesterday?

25 A. BY MR. PETRY: Yes, we did.

1 Q. And so the visual simulations that we saw that  
2 were embedded in the flyover depict the heights of the  
3 structures. Did you use 155 feet or 195 feet? Do you  
4 know what the height was for the simulation?

5 A. BY MR. PETRY: The simulations were based on the  
6 approximate 155 foot height.

7 Q. Okay. All right. All right, Mr. Duncan, we are  
8 going to get now to something that's near and dear to my  
9 heart, complying with all the statutory and notice  
10 requirements. Okay?

11 A. BY MR. DUNCAN: Yes.

12 Q. When was the application filed?

13 A. BY MR. DUNCAN: CEC application was filed on  
14 July 13th, 2021.

15 Q. And so the first requirement that we have under  
16 the siting statute, or that we have covered here, is the  
17 publication of the Notice of Hearing. Do you want to  
18 cover that at this point?

19 A. BY MR. DUNCAN: I can.

20 Q. Okay. Did you want to talk about the 10-year  
21 plan first?

22 A. BY MR. DUNCAN: Yes, I did.

23 Q. Okay. Let's do that. Because obviously there  
24 is a requirement in the siting statute that any new  
25 project be included in a 10-year plan filing with the



1 Commission. And so you are going to tell us whether  
2 that was done, right?

3 A. BY MR. DUNCAN: Yes, that is correct.

4 So the project was initially included in APS's  
5 supplemental 10-year plan which was filed on June 24th,  
6 2020. It was also included in the January 2021 filing.  
7 AES also filed 10-year plans on January 30th, 2019 and  
8 June 26th, 2020.

9 Q. Do you have an understanding of why AES had it  
10 first, and then it transitioned over to an APS 10-year  
11 plan filing?

12 A. BY MR. DUNCAN: There was -- yeah. Actually, I  
13 am going to direct this to Mr. Spitzkoff.

14 Q. Okay.

15 A. BY MR. SPITZKOFF: So AES filed the plan first  
16 because they knew they were contemplating construction  
17 of a transmission facility, you know, at that time. At  
18 that time it was not known that it would involve the APS  
19 69kV line, and hence, APS would not be involved in the  
20 construction of that transmission line. So it was not a  
21 project that we would file in our 10-year plan.

22 Once the route looked like it was going to, you  
23 know, be the route that's here today, and APS would be  
24 involved, at that point we included it in the  
25 supplemental 10-year plan filing that we filed, and have

1 included it in this year's filing as well.

2 Q. So the initial phase of the project, AES was  
3 analyzing potential routes for the gen-tie line needed  
4 to interconnect its project at Westwing. At some point  
5 in time I assume it was determined, as Mr. Duncan  
6 testified, that collocating this new 230 line with the  
7 existing 69 line was really the only route for  
8 interconnection, given the various constraints. At that  
9 point in time APS became involved and included it in the  
10 APS 10-year plan?

11 A. BY MR. SPITZKOFF: Correct.

12 Q. All right. Now do you want to turn to  
13 publication, Mr. Duncan?

14 A. BY MR. DUNCAN: Yes. Just before I do that,  
15 though, I do want to point out this map on the right  
16 screen was the map included in our 10-year plan filing,  
17 and it indicates the AES connection, interconnection,  
18 here, pointing into Westwing.

19 Q. Okay. So the Notice of Hearing?

20 A. BY MR. DUNCAN: So the Notice of Hearing, which  
21 is part of -- shown on the right screen, was published  
22 in three newspapers. It was published in The Arizona  
23 Republic on July 21st, 23rd, and 24th, 2021. It was  
24 published in the Sun City Independent on July 21st,  
25 2021. And it was published in the Peoria Independent on

1 July 28th, 2021.

2 Q. Okay. All right. So that takes care of the  
3 publication, the Notice of Hearing, which is a  
4 requirement for notice under the siting statute.

5 Turning next to the posting of signs, which is  
6 not, it was not required under the statute but is  
7 required under the Chairman's procedural order.

8 A. BY MR. DUNCAN: Yes. So we posted signs in four  
9 locations, all within the vicinity of the project, which  
10 can be seen on the map on the right screen. These signs  
11 were posted on August 3rd, 2021. I am going to use my  
12 pointer here to show these locations.

13 This is the Westwing substation. This is the  
14 planned AES battery facility. And this is Happy Valley  
15 Road here on the northern part going east to west. We  
16 had one of our signs posted there on Happy Valley Road.  
17 Mr. Petry showed that during his drone imagery where it  
18 was located.

19 We had another sign located here near the point  
20 of demarcation, another sign posted here just outside  
21 the Westwing substation on the north side, and another  
22 sign here at the corner, where the line turns to the  
23 west after coming out of the Westwing substation itself.  
24 These two signs are located along a recreation trail  
25 that Mr. Petry will speak more about when he does his

1 testimony.

2 Q. And I want to, going back to the publication,  
3 Notice of Hearing, the affidavits of publication are  
4 contained at APS Exhibit 9, is that right?

5 A. BY MR. DUNCAN: That is correct.

6 Q. And the photos that established the location and  
7 the timing for the posting of the signs that you have  
8 just shown on the right screen here in the hearing room  
9 are found at APS Exhibit 13, correct?

10 A. BY MR. DUNCAN: Yes.

11 Q. Okay. What is next?

12 A. BY MR. DUNCAN: Well, actually what is next -- I  
13 am sorry.

14 Q. I think you were going to cover --

15 A. BY MR. DUNCAN: Yes, affected jurisdictions.

16 Q. Right. Why don't we cover that.

17 A. BY MR. DUNCAN: Absolutely. So we provided  
18 notice of this hearing on affected jurisdictions. In  
19 this case the identified affected jurisdictions include  
20 Maricopa County, the Arizona State Land Department, and  
21 the City of Peoria. To reiterate, this project is fully  
22 located on Maricopa County land. The City of Peoria is  
23 within our study area. The Arizona State Land  
24 Department has adjacent landholdings, so we included  
25 them as affected jurisdictions.

1 Q. Okay. And the evidence of the mailings to the  
2 affected jurisdictions are found under, I think it is,  
3 APS Exhibit 12?

4 A. BY MR. DUNCAN: Correct.

5 Q. Okay. We have covered the publications, the  
6 posting, notice to affected jurisdictions. One of the  
7 other requirements is that we deliver copies of the CEC  
8 application and transcripts of the proceedings leading  
9 up to the hearing to a library or to libraries within  
10 the vicinity of the project. Was that done?

11 A. BY MR. DUNCAN: Yes, it was. I would like to  
12 add one point about the mailings to the affected  
13 jurisdictions.

14 Q. All right.

15 A. BY MR. DUNCAN: That those notices were mailed  
16 on July 13th and July 26, 2021 to the affected  
17 jurisdictions.

18 In terms of the libraries, copies of the  
19 applications were shipped to the Sunrise Mountain and  
20 Asante Library on July 15th, 2021. And copies of these  
21 transcripts were delivered to the same libraries.

22 Q. What is the process for doing that? Do you just  
23 simply have someone drive over the applications to the  
24 library, or do they have to be delivered to the main  
25 branch? How does it happen?

1 A. BY MR. DUNCAN: In this specific case Mr. Petry  
2 and his team handled that. But the process is generally  
3 contacting the library, informing them of what you need  
4 to do. It is usually something that's held at the  
5 reference desk at the library. And either the copies  
6 are mailed to the library or hand delivered. And I am  
7 not exactly sure how those were delivered; I just know  
8 the dates it was done.

9 Q. And we don't have any way of knowing whether  
10 anyone actually ever goes to a library and says I want  
11 to see the CEC application for the Westwing  
12 interconnection project; we just know we deliver them  
13 and they are available?

14 A. BY MR. DUNCAN: That is correct.

15 Q. All right. What about website posting?

16 A. BY MR. DUNCAN: Yes.

17 Q. Is there a project website, and does it contain  
18 information about the project?

19 A. BY MR. DUNCAN: There is. I will speak more  
20 about the website a little bit later. But our project  
21 website does have access to the key filings, the  
22 transcripts, the application, and other related  
23 information.

24 Q. One of the newer provisions in the Chairman's  
25 procedural order requires that APS use social media to

1 publicize this hearing. Was that done?

2 A. BY MR. DUNCAN: Yes, it was. I will cover more  
3 details of the social media program in connection with  
4 my testimony concerning public and stakeholder  
5 involvement, but we did use social media particularly to  
6 provide notice of this evidentiary hearing.

7 Q. Okay. And the types of social media that we  
8 utilized are what? Facebook, Instagram primarily?

9 A. BY MR. DUNCAN: Facebook and Instagram, yes.

10 Q. But there were other methods of outreach and  
11 informal ways to notify the public that you are going to  
12 cover here in a bit, right?

13 A. BY MR. DUNCAN: That is correct.

14 Q. Okay. Did I miss anything in terms of covering  
15 the different checking the boxes on our statutory or  
16 procedural order requirements for notice of this  
17 proceeding?

18 A. BY MR. DUNCAN: No, sir.

19 Q. Okay. So I think you are ready to move on and  
20 talk about the public and stakeholder outreach.

21 A. BY MR. DUNCAN: Yes. So I am first just going  
22 to be going through this bullet list of various ways we  
23 do it, and then I will do a deeper dive into each of  
24 these methods.

25 For our public outreach for this project we

1 primarily use the project mailings. We had a virtual  
2 open house. We conducted stakeholder briefings. We  
3 maintained the project website that I made mention a  
4 moment ago. We maintained a project telephone  
5 information line. And we used social media as well as  
6 customer emails to notice this evidentiary hearing.

7           So moving on to the project mailings, I am going  
8 to start by orienting you to the map that is on the  
9 right screen. This is what we are referring to as our  
10 notification area map. You will notice that it  
11 primarily follows the shape of our study area, but has a  
12 few extra areas outside. These extra areas were because  
13 we had a subdivision here at the south end that was  
14 being split by our study area, and it was inappropriate  
15 to cut the subdivision in half for our notification. So  
16 we extended our notification area to include all of that  
17 subdivision, as well as this area again here to the west  
18 of what I was just pointing at.

19           There is also a small area up here in what is  
20 referred to as a wildcat subdivision, wildcat referring  
21 to kind of a disorganized subdivision of individual  
22 private properties. But there were some properties that  
23 were large and were cut by our study area, so we made  
24 sure we extended to include the full area of those  
25 individual properties. And then everything inside of



1 our study area was part of our notification area. The  
2 project mailings were provided to more than 2,300  
3 customers within our notification area, as I showed  
4 within our notification area.

5 And yes, Mr. Gentles, I am aware that this  
6 number is in the low 2,000s. But I just wanted to  
7 assure you that the next two cases that you will hear,  
8 at least from APS, you will see vastly different  
9 numbers. But for this one it was 2300.

10 Our first newsletter was mailed on March 15th,  
11 2021. This introduced the project and announced the  
12 virtual open house and provided instruction on how  
13 comments could be made.

14 A second newsletter was mailed on August 12th  
15 with information about the project, and to specifically  
16 provide information about attending these evidentiary  
17 hearings.

18 A third newsletter is planned following the  
19 final ACC decision to both announce the decision, but  
20 also to provide preliminary information about the  
21 planned construction schedule.

22 Q. Mr. Duncan, take me back one slide to your  
23 newsletter. So the two newsletters went out. The  
24 March 15 newsletter, is that included in Exhibit J to  
25 the CEC application?

1 A. BY MR. DUNCAN: Yes, it is.

2 Q. Okay. And then the August newsletter, that can  
3 be found at APS Exhibit 14, is that right?

4 A. BY MR. DUNCAN: Correct.

5 Q. And you indicate that at the conclusion of this  
6 proceeding a newsletter will go out to the public  
7 alerting them to whatever the outcome of this proceeding  
8 is?

9 A. BY MR. DUNCAN: That is correct.

10 Q. Okay. All right. Continue.

11 A. BY MR. DUNCAN: Thank you, Mr. Derstine.

12 The virtual open house that I mentioned, this is  
13 similar in design to the version that was presented by  
14 me last month to the Committee for the Biscuit Flats  
15 hearing. This virtual open house was launched on  
16 March 24th, 2021. It provided customers with  
17 information about the project, its purpose and need, and  
18 the environmental studies that were performed.  
19 Opportunities to provide comments directly to the  
20 project team were explained, including on forms provided  
21 on the virtual open house page, as well as other  
22 methods, including a project email.

23 We had approximately 40 unique visitors attend  
24 the virtual open house.

25 Q. And the slides from the virtual open house,

1 those are -- let me make sure I have got it right here,  
2 at APS Exhibit 16, right?

3 A. BY MR. DUNCAN: Yes.

4 Q. Okay. Now, in the Biscuit Flats hearing, we  
5 went ahead and took the Committee and let them see the  
6 virtual open house and, in fact, see your kind of  
7 opening introduction video. I know you are bashful and  
8 don't necessarily want to live through seeing that  
9 again. But I mean the format for the virtual open  
10 house, your introduction to this project is very similar  
11 to the virtual open house presentation that we provided  
12 the Committee in Biscuit Flats, correct?

13 A. BY MR. DUNCAN: Yes. It would be difficult to  
14 tell the two apart, other than the information that's  
15 shared.

16 Q. Okay. So your son took the introductory video  
17 on your porch for this project as well?

18 A. BY MR. DUNCAN: In the backyard, but yes.

19 Q. All right. Very good. All right. We are  
20 moving on from the virtual open house.

21 A. BY MR. DUNCAN: Thank you for putting my son on  
22 the record, because he deserves it.

23 Q. He is a talented young man, I can tell you.

24 CHMN. CHENAL: D-E-R-S-T-I-N-E.

25 MR. DUNCAN: So stakeholder briefings, we did

1 stakeholder briefings with the City of Peoria and with  
2 Maricopa County, Maricopa County specifically because,  
3 again, our project is located fully on Maricopa County's  
4 land.

5 But we also held it with the City of Peoria,  
6 specifically because they are -- they do have  
7 jurisdiction within a portion of our study area, and  
8 therefore some of their residents may have received  
9 notification. So we wanted to make sure that we, as a  
10 courtesy, met with them and talked about the project.

11 MEMBER HAMWAY: Mr. Chairman, I just have one  
12 quick question.

13 Particularly unincorporated areas in Maricopa  
14 County are handled through a fire district. But I think  
15 this is expecting the City of Peoria to be the firemen  
16 that would arrive first, firepeople, firewomen. So is  
17 there a fire district in this unincorporated area?

18 MR. DUNCAN: Member Hamway, I am going to assume  
19 that there is, but I will admit that I don't know.

20 But what I will say is that during our  
21 jurisdictional meeting with the City of Peoria, they had  
22 their fire staff in attendance. They invited them. And  
23 they did, you know, indicate that they would be the fire  
24 service that would serve the battery storage. They  
25 didn't specifically speak to the transmission line, but

1 they did bring up the battery storage. Myself and  
2 Mr. Petry were in attendance at that meeting. We were  
3 unable to speak to the battery storage project, as that  
4 is not part of our case.

5 BY MR. DERSTINE:

6 Q. Mr. Petry, do you have any more information?  
7 You know, when we were out visiting the project area,  
8 the site, there is that fire station that you showed to  
9 the Committee on the virtual flyover. Do you have any  
10 more information in terms of the jurisdiction or who  
11 operates that fire station?

12 A. BY MR. PETRY: Mr. Derstine, I do not. What I  
13 can add is, as you noted, there is a fire station  
14 located immediately east of the project site, less than  
15 a quarter mile to the east.

16 Q. Okay.

17 CHMN. CHENAL: Member Hamway.

18 MEMBER HAMWAY: Chairman, I would like to still  
19 know whether or not there is an existing fire district  
20 out there.

21 CHMN. CHENAL: Is that something the applicant  
22 can provide?

23 MR. DUNCAN: We will work to obtain that  
24 information.

25 CHMN. CHENAL: Mr. Duncan, thanks.

1 MR. DERSTINE: And it is possible, I know that  
2 AES, as they testified yesterday, has had ongoing and a  
3 significant communication with fire districts and fire  
4 officials through their outreach, and so maybe AES can  
5 comment and tell us who they are communicating with and  
6 whether or not that's a fire district. All right?

7 MEMBER HAMWAY: It is not going to change  
8 anything. I just want to make sure that, if there is a  
9 fire district, that they are engaged.

10 MR. DERSTINE: Understood.

11 MEMBER HAMWAY: Because typically in those rural  
12 areas often the fire district just comes alive when  
13 there is a fire sometimes. But there is a structure,  
14 and I was just curious if the structure of that fire  
15 district is in play here and involved.

16 MR. DERSTINE: I appreciate that. That's a good  
17 question.

18 Looking back at the exhibit that Ms. Grabel  
19 introduced yesterday, the zoning approval indicated that  
20 any building permits and certificates of occupancy were  
21 conditioned upon, you know, prior approval by the fire  
22 district. It just doesn't identify who that agency is.  
23 So we will dig into it.

24 MEMBER HAMWAY: I don't know if it was a fire  
25 district as much as like an association of firemen. Was

1 it a fire district? I didn't see the word fire  
2 district, but I could be wrong.

3 MR. DERSTINE: My recollection, it was kind of a  
4 generic term, but you might be right.

5 MEMBER HAMWAY: I read that to be an association  
6 of people who were concerned about safety and fire, so  
7 not a fire district necessarily.

8 MR. DERSTINE: Okay. Very good.

9 MR. DUNCAN: Mr. Derstine.

10 MR. DERSTINE: Yes.

11 MR. DUNCAN: Because I have a world class  
12 consultant, I already have the answer.

13 MR. DERSTINE: I assume you are referring to  
14 Mr. Petry.

15 MR. DUNCAN: I am referring to Mr. Petry.

16 MR. DERSTINE: It didn't seem that was  
17 Mr. Spitzkoff.

18 MR. DUNCAN: I could never say that about  
19 Mr. Spitzkoff. I am just kidding.

20 Member Hamway, it is the North County Fire and  
21 Medical District.

22 MEMBER HAMWAY: Okay.

23 MR. DERSTINE: Thank you for that.

24 BY MR. DERSTINE:

25 Q. Okay. I think you were going to turn to the

1 project website and some other methods and channels that  
2 APS used to publicize the transmission line project.

3 A. BY MR. DUNCAN: Yes. So as I mentioned a moment  
4 ago, we maintained a project web page under the APS.com  
5 banner which was available to customers to learn about  
6 the project, read materials, including the newsletters  
7 or the application, and provide links to relevant  
8 documentation about both our siting and CEC processes.

9 We maintained a project telephone information  
10 line that allowed customers another avenue to learn  
11 about the project, leave comments, or to request a  
12 follow-up call from a project team member. For this  
13 particular project, the telephone information line was  
14 actually the primary way that we received comments.

15 We used social media, specifically the placement  
16 of ads on Facebook and Instagram, as another avenue of  
17 engagement with our customers. The ads were directed at  
18 customers throughout our notification area, which,  
19 again, was that blue area shown on the right screen a  
20 few moments ago. These ads were placed between  
21 August 12th and August 19th to announce the upcoming  
22 evidentiary hearings. These ads were viewed by more  
23 than 31,520 customers, which, due to the nature of  
24 social media, may include repeated views by individual  
25 customers. 26 customers clicked on the ad for more



1 information, two six, 26.

2 I did have this --

3 Q. Can we go back just a minute to your social  
4 media, or the prior slide?

5 A. BY MR. DUNCAN: Yes.

6 Q. This one. So on the right screen, what is the  
7 Committee seeing there?

8 A. BY MR. DUNCAN: This right screen is showing the  
9 top portion of our website.

10 Q. Okay.

11 A. BY MR. DUNCAN: As we did on Biscuit Flats, we  
12 also incorporated the use of customer emails. These  
13 emails were sent to customers served by lines within the  
14 notification area, again, shown in blue on the right  
15 screen. Again, it was sent to customers that are served  
16 by lines within this area that have provided an email  
17 address to APS, which most of our customers do.

18 A total of 6,506 emails were sent with 4,771 of  
19 those emails being opened and 485 links within the  
20 emails being selected and viewed, meaning that they  
21 opened the email and actually clicked on the link to get  
22 the -- to access the information.

23 CHMN. CHENAL: How many again, Mr. Duncan,  
24 clicked on the link?

25 MR. DUNCAN: So out -- excuse me -- of 6,506

1 emails that were sent, 4,771 of those emails were  
2 opened, and out of those 4,771 that were opened, 485 had  
3 links that were clicked upon.

4 CHMN. CHENAL: Thank you.

5 BY MR. DERSTINE:

6 Q. So I think as Member Gentles has pointed out on  
7 more than one occasion, different folks respond to  
8 different things. We have customers who may be inclined  
9 to look at a Facebook or Instagram ad and click on it  
10 and maybe don't ever look at their email, somebody like  
11 me.

12 But we have also many folks, and sounds like we  
13 had a higher return on our emails in terms of folks who  
14 actually took the time and effort to click and gain more  
15 information about the project. Is that a fair reading  
16 of the numbers you just presented?

17 A. BY MR. DUNCAN: Yes, it is.

18 Q. Okay. All right.

19 MEMBER GENTLES: Mr. Chairman, Mr. Duncan, how  
20 long does that project website stay up, typically?

21 MR. DUNCAN: So we keep our project websites  
22 updated until the project is constructed. And then we  
23 update our website to indicate it was constructed. But  
24 if the project has ongoing compliance, which some of our  
25 projects do, we still maintain the website through the

1 time that the compliance is completed. So it is project  
2 by project, but in most cases it is years.

3 MEMBER GENTLES: And then do you archive the  
4 site content?

5 MR. DUNCAN: We actually have a place in our  
6 siting website where we put projects that have been  
7 completed. They are still available to the public, but  
8 they are clearly indicated as being completed.

9 MEMBER GENTLES: Great. Thank you.

10 Thank you, Mr. Chairman.

11 BY MR. DERSTINE:

12 Q. Mr. Duncan, the information that you provided on  
13 the outreach efforts and the different channels and  
14 methods that APS used to publicize the transmission line  
15 project are summarized in APS-15, which is your overview  
16 or summary of public involvement, is that right?

17 A. BY MR. DUNCAN: Yes, that is correct.

18 Q. Okay. Anything else you want to add to your  
19 discussion and your presentation of the outreach  
20 efforts?

21 A. BY MR. DUNCAN: No, there is not.

22 CHMN. CHENAL: Let me jump in here and just say  
23 I just want to compliment APS on its outreach efforts in  
24 this case. I know notice is near and dear to me, as it  
25 is to Mr. Derstine, but maybe for different reasons.

1 But really, it is an important function of the  
2 Committee. And I think these numbers just testify to,  
3 you know, an effective outreach. And I am -- I think  
4 the social media aspect of it is obviously -- will  
5 become more and more important. And I see -- I think it  
6 is effective. I think we are seeing that. And I just  
7 want to take this opportunity to congratulate the team  
8 for its outreach efforts. I think it was very well done  
9 in this case in a rather rural area.

10 MR. DUNCAN: Thank you, Mr. Chairman. It is a  
11 team effort.

12 MR. DERSTINE: I think at this point we are  
13 going to turn it back to Ms. Spina and Mr. Spitzkoff to  
14 go through noise and EMF analysis.

15 MS. SPINA: Thank you, Mr. Derstine. I think I  
16 got it right that time. I set off a trend. Because I  
17 now know all of a sudden it is Derstine -- Derstine,  
18 sorry -- so I will get us back on the straight and  
19 narrow.

20 CHMN. CHENAL: It's hopelessly confused.

21 MS. SPINA: Yes.

22

23 DIRECT EXAMINATION CONTINUED

24 BY MS. SPINA:

25 Q. Mr. Spitzkoff, good morning. I would say

COASH & COASH, INC.  
www.coashandcoash.com

602-258-1440  
Phoenix, AZ

1 welcome back to the table, but I think you have been  
2 sitting there pretty much nonstop for the last two days,  
3 so -- two and a half days -- so I won't go quite that  
4 far.

5 In a new CEC application such as this one,  
6 applicants are required to study and address --

7 MEMBER NOLAND: Mr. Chairman, I am sorry.

8 With the noise in the background, I am not able  
9 to hear you.

10 CHMN. CHENAL: Let's take a timeout for a  
11 second.

12 MS. SPINA: Sure.

13 CHMN. CHENAL: Take a short break. The noise  
14 is --

15 MEMBER NOLAND: There is still no water,  
16 Mr. Chairman.

17 MEMBER HAMWAY: No water.

18 (A recess ensued from 10:17 a.m. to 10:38 a.m.)

19 CHMN. CHENAL: All right, everyone, let's go  
20 book on the record. We are back with water, and  
21 hopefully the AC will come back on soon. I am assured  
22 it will. And we will just continue to play it by ear.

23 So I think, Ms. Spina, you were going to ask  
24 some questions on --

25 MS. SPINA: I was, yes, on noise and

1 electromagnetic fields.

2 Member Noland, are you hearing me better?

3 MEMBER NOLAND: You need to be close to that  
4 microphone.

5 MS. SPINA: I am not sure I can get much closer.

6 MEMBER NOLAND: But you turn your head when you  
7 are talking. But that was good.

8 MS. SPINA: Maybe I will put it here. Is that  
9 better?

10 MEMBER NOLAND: Thank you.

11 MS. SPINA: Okay. Thank you.

12 BY MS. SPINA:

13 Q. Okay, Mr. Spitzkoff. So in a new CEC  
14 application, applicants are required to study and  
15 address both noise and any electromagnetic fields that  
16 may be generated by the transmission lines. And those  
17 topics are covered in Exhibit I to Exhibit APS-1, which  
18 was the CEC application, is that correct?

19 A. BY MR. SPITZKOFF: Yes.

20 Q. So did you perform an analysis as to noise?

21 A. BY MR. SPITZKOFF: Yes.

22 Q. And can you walk us through your conclusions,  
23 please.

24 A. BY MR. SPITZKOFF: Yes. So the current area is  
25 already saturated with existing lines, 500kV, 230kV and

1 69kV. As you have, you know, been able to see the last  
2 few days, the 500kV lines up at the top, you have got  
3 the substation here and the other lines down there.

4 This new line will be consistent with noise  
5 levels of the existing lines and lines of this type. So  
6 given the expected noise levels of the new line, the  
7 environment that it is within, there is minimal noise  
8 impacts that are expected.

9 Q. Thank you, Mr. Spitzkoff.

10 And did you also consider the electromagnetic  
11 field interference?

12 A. BY MR. SPITZKOFF: Yes, we did.

13 Q. And can you walk us through your considerations  
14 with respect to EMF.

15 A. BY MR. SPITZKOFF: Yes. So the expected  
16 electric field values were modeled and shown to be well  
17 below the five kV per meter limit that is outside the  
18 right-of-way, which is specified by the IEEE 2002  
19 standard for magnetic fields. The calculated magnetic  
20 field is comparable to the existing lines of this  
21 voltage. And again, given the predominance of existing  
22 electrical lines and substations in the area, there is  
23 no magnetic field impacts expected.

24 Q. Thank you.

25 And I see on the right screen that you have two

1 graphics, a chart on the left and a table on the right.  
2 Starting with the graph on the left, would you please  
3 walk us through what that is intended to depict.

4 A. BY MR. SPITZKOFF: Certainly. The chart on the  
5 left shows the calculated magnetic field for this line.  
6 The Y axis, the values on the Y axis up and down here  
7 are magnetic field strengths in milligauss. The X axis  
8 is distance away from the monopole structure.

9 So this 20 that I am showing here would be 20  
10 feet from the centerline, 40 feet from the centerline,  
11 et cetera. And the graph shows the magnetic field as  
12 you move from the center of the line. So, for instance,  
13 80 feet from the center of the line, the magnetic field  
14 would be approximately just over eight milligauss.

15 The table on the right is just a table showing  
16 the magnetic field strengths of generic household  
17 appliances. So, for instance, a microwave oven, if you  
18 are six inches, standing six inches away, it emits a  
19 magnetic field of between 100 and 300 milligauss; 12  
20 inches away, 100 to 200 milligauss; and then so forth  
21 for 24 and 48 inches away. And you can see hairdryer,  
22 electric range, and PC monitor.

23 Q. Thank you, Mr. Spitzkoff.

24 So it appears -- well, I guess could you  
25 confirm, is it reasonable to conclude, then, that the



1 EMF from the line would be no greater than what we would  
2 see from just our standard household appliances?

3 A. BY MR. SPITZKOFF: And it would probably be less  
4 if you are, if you are in a house, given the distance to  
5 the line. If you are standing on the edge of the  
6 right-of-way, I think you would be compatible.

7 Q. Okay. Thank you very much.

8 And I will turn the microphone back to  
9 Mr. Derstine to walk us through the environmental  
10 studies then. Thank you.

11

12 DIRECT EXAMINATION CONTINUED

13 BY MR. DERSTINE:

14 Q. All right. Clicker in hand, Mr. Petry?

15 A. BY MR. PETRY: I am ready to go.

16 Q. All right. Ms. Spina introduced you to the  
17 Committee as part of our panel introductions. You  
18 talked about your experience and your education and  
19 background. I don't think you spent any time talking  
20 about SWCA. That's the company that you work for. Why  
21 don't you give the Committee a little background on SWCA  
22 to start us off.

23 A. BY MR. PETRY: Yes, thank you. SWCA is an  
24 environmental consulting firm. We are based out of  
25 Phoenix, Arizona. And we provide comprehensive

1 environmental planning, permitting, regulatory  
2 compliance, natural and cultural resources management,  
3 and other environmental services in Arizona and across  
4 the United States.

5 Q. And so SWCA was the environmental consulting  
6 firm that was engaged by APS to assist with the  
7 environmental study work and the preparation of the CEC  
8 application for the Westwing interconnection project,  
9 right?

10 A. BY MR. PETRY: Yes.

11 Q. Okay. Talk a little bit about what the actual  
12 work that SWCA did in connection with this case.

13 A. BY MR. PETRY: Yes. We at SWCA were retained by  
14 APS to assist in the preparation of the application for  
15 a CEC, and to perform the environmental resource studies  
16 that support that application. And we also assisted  
17 with the public involvement program.

18 As part of that work, we collected data and  
19 completed resource studies included in Exhibits A  
20 through F of the CEC application, as well as Exhibit H  
21 of the application. And I personally coordinated these  
22 efforts and oversaw the compilation of the information  
23 in those exhibits.

24 Q. All right. Do you want to start by identifying  
25 the study area that you used for your analysis?

1 A. BY MR. PETRY: You bet. So as Mr. Duncan  
2 testified to previously, the study area used for this  
3 project was areas within a one-mile buffer of the  
4 proposed transmission line. And that is indicated on  
5 the map on your right screen now. The study area,  
6 again, is the black dashed line that is extending around  
7 the perimeter of the project area there. That study  
8 area is identified in Exhibits A-1, A-2, and A-3 of the  
9 application.

10 Q. Under the first areas of analysis in a CEC  
11 application, oftentimes are the land use impacts, and  
12 looks like that's where we are going to start. So why  
13 don't you just take us through kind of your analysis of  
14 land use, jurisdiction, and ownership.

15 A. BY MR. PETRY: Yes. So again as illustrated  
16 from Exhibit A-1 of the application and shown on the  
17 right screen, land ownership within the study area is a  
18 majority of private, privately owned lands. There are  
19 large portions of the study area that are under Arizona  
20 State Land Department ownership. You can see those  
21 areas in blue on the map on the right screen. And there  
22 is a small portion of the study area on the far eastern  
23 border that's under the ownership of the Bureau of Land  
24 Management. That's indicated in this area right here,  
25 yellow parcel there.

1 As shown again in Exhibit A-1, all of the  
2 proposed project facilities, as well as the bulk of the  
3 study area, are within Maricopa County's jurisdiction,  
4 and there is a small portion in the northern part of the  
5 study area that's under the jurisdiction of the City of  
6 Peoria. The jurisdictional boundary you can see is the  
7 dashed red line and the very northern portion of the  
8 project study area along here.

9 Q. All right. Do you want to take us through your  
10 findings on land use.

11 A. BY MR. PETRY: Yes. So we at SWCA completed a  
12 secondary data land use inventory to identify and map  
13 the land uses that we saw within the study area. As a  
14 follow-up to that secondary inventory, we conducted a  
15 detailed field review to update and verify what we saw  
16 from aerial imagery.

17 Overall, the project is located in a moderately  
18 developed but developing urban and suburban area with  
19 several residential developments and a notable amount of  
20 utility infrastructure. Other land uses within the  
21 study area include a large amount, again, of vacant land  
22 as well as commercial, mixed use, park and recreation,  
23 some public, quasi public uses, transmission and  
24 transportation infrastructure, some industrial uses,  
25 water uses as well. And then, again, a large portion of

1 the study area contains the existing Westwing substation  
2 and additional transmission infrastructure.

3 And just as an overview, the map on your right  
4 screen, which is included in the CEC application, this  
5 is the existing land use map. And so what you can see  
6 in the center of that map, the blue area represents the  
7 Westwing substation and some of the infrastructure,  
8 transmission infrastructure, entering and exiting that  
9 substation.

10 To the south within the study area you can see a  
11 brown area. That represents the existing residential  
12 development to the south on the south side of Loop 303  
13 freeway. As well, over the last couple days we talked a  
14 bit about some of those residential developments closer  
15 to the project. Those areas are also represented in  
16 brown north of the Westwing substation. You can see  
17 those areas through here.

18 In addition to some of that infrastructure, you  
19 see some of the industrial development and other various  
20 densities of residential development on the eastern side  
21 of the study area on the east side of the Loop 303, the  
22 other side of Loop 303 from the project.

23 Really, the most dominant, I think, land use  
24 within the project area, again, is going to be the  
25 utility infrastructure. You know, existing utilities

1 within the study area include five 500kV transmission  
2 lines, six existing 230 kilovolt, one 345kV transmission  
3 line, and five 69kV subtransmission lines, as well as  
4 the Westwing substation and the SRP Perkins substation  
5 and a natural gas pump station facility located north of  
6 the Westwing substation.

7 Q. All right. So that's existing land use, I  
8 guess, as dictated by jurisdiction and ownership. What  
9 about future land use?

10 A. BY MR. PETRY: Yes. So as part of our land use  
11 inventory, we completed, we at SWCA completed a review  
12 of the future and planned land uses that were identified  
13 within the Maricopa County comprehensive plan and the  
14 City of Peoria general plan. And the project is located  
15 in an area designated as public, quasi public, mixed  
16 use, and commercial land uses by the Maricopa County  
17 comprehensive plan, and zoned through the Maricopa  
18 County zoning code as RU-43, or rural zoning, as well as  
19 an IND-2, or light industrial zoning. The project is  
20 consistent with these Maricopa County land use and  
21 zoning prescriptions.

22 Q. Okay. I guess one of the ways that you  
23 determine future land use plans is by sending out  
24 Exhibit H letters. You are going to cover those later  
25 in your presentation. But that's one of the ways, is

1 you reach out by letter to public and private agencies  
2 and ask them about future land use plans, right?

3 A. BY MR. PETRY: That is correct.

4 Q. Okay. And we will get into those letters a bit  
5 later.

6 Do you want to summarize your findings on  
7 existing and future land use?

8 A. BY MR. PETRY: Yes. So as shown on Exhibit A-1,  
9 the preferred route would be collocated with the  
10 existing Calderwood to Westwing 69kV transmission line  
11 for approximately .45 miles, and results in negligible  
12 impacts on the existing land uses. The construction and  
13 operation of the project could be compatible with the  
14 existing land uses.

15 And in addition, based on review of the planned  
16 uses of the study area, the project is compatible with  
17 future land uses at and surrounding the project site as  
18 there is a utility hub planned for future industrial  
19 development.

20 Q. When I walked around out there, one of the  
21 things I saw is a bench. And I asked what the bench was  
22 for. I guess there is a trail that winds its way  
23 through there. I think you are going to talk about  
24 recreational impacts a bit later in your presentation,  
25 but that's one of the, I guess, land uses there. And

1 your findings will be -- or as you will get to that,  
2 there is no real impact to, you know, to the recreation  
3 in the area as well, right?

4 A. BY MR. PETRY: That is correct. I will go into  
5 further detail on that.

6 Q. Okay. All right. Anything else on land use?

7 A. BY MR. PETRY: No.

8 Q. Okay. Well, let's turn to the biological  
9 resources then.

10 A. BY MR. PETRY: Yes. Thank you.

11 So CEC Application Exhibit C addresses the  
12 species protected by federal or state laws and policies  
13 because of their conservation status, and it also  
14 addresses whether any areas protected for conservation  
15 purposes are present or near the vicinity of the  
16 project. CEC Application D identifies the fish,  
17 wildlife, plant life, and associated forms of life in or  
18 near the vicinity of the project, and it describes the  
19 effects the project would have thereon.

20 As part our inventory, SWCA biologists conducted  
21 a reconnaissance level survey to document the existing  
22 conditions on the site and to note whether habitat  
23 features important to any special, threatened, or  
24 endangered species were present. Information was  
25 provided by the Arizona Game & Fish and directed from



1 the United States Fish & Wildlife Service. And that was  
2 done in order to identify any protected species and  
3 their critical habitat and any protected areas that may  
4 be present.

5 Our inventory found that no listed species under  
6 the Endangered Species Act are present within the  
7 project area, and none are anticipated to be impacted by  
8 the project. As well, no protected areas or any areas  
9 of biological wealth are within the project area.

10 Q. I guess given that fact, given that there is no  
11 impact to listed species and no areas of biological  
12 wealth within the area of the project, will APS still be  
13 required to undertake some sort of mitigation measures  
14 when they are constructing this project?

15 A. BY MR. PETRY: Yes. The mitigation measures  
16 that would be implemented for the project would be  
17 typical and would include preconstruction surveys,  
18 washing the construction equipment to minimize any  
19 introduction of any exotic or invasive species, and  
20 minimization of any construction trenching left open for  
21 extended periods of time.

22 In addition, the transmission structures would  
23 be constructed in compliance with those standards  
24 provided by the Avian Power Line Interaction Committee,  
25 or APLIC, which minimizes the risk to electrocution to

1 large birds.

2 Q. Do you want to summarize your findings or your  
3 conclusions with regard to whether the project is  
4 compatible with plant and wildlife?

5 A. BY MR. PETRY: Yes. Based on SWCA's  
6 evaluations, the development and operation of the  
7 project would be compatible with wildlife and plant  
8 species as well as the affected habitat.

9 Q. All right. Well, what about visual impacts,  
10 impacts to scenic areas?

11 A. BY MR. PETRY: Yes. So as part of information  
12 contained in Exhibit E of the CEC application, we  
13 completed, we at SWCA completed a visual resource study  
14 to identify and characterize the existing scenery,  
15 scenic quality, and sensitive viewers within the study  
16 area. This was done in order to identify the level of  
17 visual modification in the landscape that would result  
18 from the project.

19 What we found is that the existing scenery in  
20 the study area includes views typical of a variety of  
21 urban and suburban land uses. These include, you know,  
22 some of the dominant existing utility and industrial  
23 infrastructure, including the high voltage transmission  
24 lines, substation, natural gas pump station, and  
25 freeway, as well as those residential, commercial, and

1 public, quasi public uses.

2 The scenic quality within the study area is  
3 considered relatively low, based on the general lack of  
4 visually interesting land forms and vegetation and the  
5 prominence of those existing built features.

6 The last thing we look at in that analysis is  
7 the sensitive viewer types. And, you know, there are  
8 usually types of sensitive viewers that we identify and  
9 look at these analyses. Those include residential  
10 viewers, recreational viewers, and what we call travel  
11 route viewers, or traveling viewers on roadways,  
12 primarily.

13 The residence -- that first sensitive viewer  
14 type, the residential viewers, the residences nearest to  
15 the project include those within the Christopher Todd  
16 Communities development. That's the development to the  
17 east of the project transmission line, about 500 feet  
18 east of the project, as well as some of those within the  
19 existing residential development north of Happy Valley  
20 Road.

21 The views from residences with the study area  
22 typically include residential development, prominent  
23 roadway infrastructure, with some intermixed natural  
24 appearing open space. The existing transmission  
25 structure, again, is also highly visible for many

1 residents, and the height and density of those  
2 facilities make them dominant features in many portions  
3 of the landscape.

4 The recreation areas within the study area,  
5 which, again, is one of the three sensitive viewer  
6 types, recreational viewers, the recreation areas within  
7 the study area include some pedestrian and multi-use  
8 paths, some neighborhood parks. The neighborhood parks  
9 and pedestrian paths are largely found within the  
10 residential developments within the study area.

11 As well, we mentioned the multi-use travel that  
12 travels through the project area, that's actually the  
13 Maricopa Trail. And the Maricopa Trail actually crosses  
14 along the northern boundary of the existing Westwing  
15 substation. And that is another identified sensitive  
16 viewer, would be those recreation viewers.

17 The third sensitive viewer type would be the  
18 travel route viewers. And the primary travel routes in  
19 proximity to the project include the Loop 303, Happy  
20 Valley Road, and Vistancia Boulevard, the nearest of  
21 which, Happy Valley Road, is approximately a tenth of a  
22 mile north of the project.

23 Q. You said the scenic quality is relatively low.  
24 I guess maybe the beauty is in the eye of the beholder.  
25 I know Mr. Spitzkoff finds that whole area very

1 appealing. Lots of transmission lines, you know, are  
2 something near and dear to his heart.

3 But I get it. In terms of the views, and you  
4 showed us a bit yesterday and I think we are going to  
5 turn back to them in a minute, the views from those  
6 residential neighborhoods to a large extent focus on  
7 large lattice structures and other transmission  
8 facilities, as well as Westwing. And so when you are  
9 saying the scenic quality is low, those are the dominant  
10 forms on the landscape, right?

11 A. BY MR. PETRY: Yes.

12 Q. Okay.

13 MEMBER NOLAND: Mr. Chairman.

14 CHMN. CHENAL: Member Noland.

15 MEMBER NOLAND: Thank you.

16 Devin, when the battery storage is complete and  
17 the walls are around it, both in Phase 1 and Phase 2,  
18 won't that semi block that view of the Westwing  
19 substation from like Happy Valley Road, and maybe even  
20 some of the neighbors to the north?

21 MR. PETRY: Yes, we believe it will,  
22 particularly from, as you say, Happy Valley Road.

23 MEMBER NOLAND: Thank you.

24 BY MR. DERSTINE:

25 Q. I think you are going to move on to your --

1 well, you did create visual simulations. Again, we saw  
2 some of those embedded in the flyover simulation, or we  
3 saw them, we are going to return back to them, right?

4 A. BY MR. PETRY: Yes.

5 Q. Tell us about how the simulations were prepared  
6 and give us some background on them.

7 A. BY MR. PETRY: Yes. To illustrate the project's  
8 visual characteristics, we created three visual  
9 simulations, which were shown yesterday. And these were  
10 completed from three key observation points, or KOPs,  
11 within the study area. And these simulations are based  
12 on, you know, the project and existing site data, and  
13 were developed using 3D modeling software. And again,  
14 these can be sound in Exhibit G in the CEC application.

15 And what you can see on your right screen now  
16 are three maps showing the locations of those key  
17 observation points, or KOPs. These were the same maps  
18 that were included in those visual simulations that were  
19 displayed yesterday. And these again show, in the red  
20 dot, the location of the KOP, with the blue cone  
21 indicating the field of view that is, that can actually  
22 be seen from these simulations.

23 Q. And I understand you called them key observation  
24 points, but can you talk a little about how you selected  
25 those points for creating the simulations.

1 A. BY MR. PETRY: Yes. These points are intended  
2 to correspond with those three sensitive viewer types  
3 that I described previously. Those include residential,  
4 recreational, and travel route viewers.

5 And what we try to do with these is really  
6 identify locations where the sensitive viewers would be  
7 either closest to the project or in a location where the  
8 maximum visual impact would be seen. We want to emulate  
9 essentially those worst case scenarios.

10 And so, you know, each of these key observation  
11 points represent those views. KOP-1 shown here  
12 represents a view from a residential development to the  
13 north. KOP-2 also represents a view from the  
14 residential development closest to the project, to the  
15 east of the project. And KOP-2, in addition to the  
16 residential view, is representative of a recreational  
17 view from the park facility closest to the project  
18 there. KOP-3 shown here represents a view from Happy  
19 Valley Road looking east. And this represents those  
20 travel route viewers.

21 As you may see in the simulation when we get to  
22 it for KOP-3, this is some distance away from the  
23 project. It is actually -- there are other locations on  
24 the roadway that are closer to the project, but part of  
25 what we look at with regard to travel route viewers and

1 impacts to those viewers is the view itself. Typically  
2 travel route, or drivers, those in vehicles on roadways  
3 are looking straight forward, typically. So we think  
4 about the direction of their view; in addition to the  
5 duration of their view, the length of time that they are  
6 viewing a facility such as this. And for this  
7 particular project we identified KOP-3 in a location  
8 where that direction of view is right at the project,  
9 and the duration of view is essentially the longest for  
10 travel route viewers.

11 Q. Okay. Well, are you ready to take us through  
12 the simulations?

13 A. BY MR. PETRY: Yes. Thank you. I did give some  
14 detail yesterday in terms of the layout of these  
15 simulations. I will just refresh everybody on that now.

16 Really what we are looking at here in the upper  
17 picture would be a photograph representing the existing  
18 condition from key observation point or KOP-1. The map  
19 in the upper right of your screen again represents the  
20 location of KOP-1, as well as the area within your field  
21 of view. The lower image represents the simulated  
22 condition.

23 And this, this area again shown in the  
24 foreground, you can see, you know, some of the existing  
25 residences, existing vegetation within that residential



1 community. In the middle ground you can see the  
2 existing 500kV lattice structures. And in the  
3 background you can see the existing Westwing substation  
4 and transmission infrastructure surrounding it.

5 Again, the lower image represents the simulated  
6 condition. And you may be able to see a few of the  
7 simulated monopole structures proposed as part of the  
8 project in that lower image. The portion of the project  
9 you would be seeing best really is the portion north of  
10 the Westwing substation before that line would drop down  
11 into the BESS facility.

12 MEMBER GRINNELL: Mr. Chairman.

13 CHMN. CHENAL: Member Grinnell.

14 MEMBER GRINNELL: Would it be a fair observation  
15 to say that the Westwing facility was built prior to  
16 much of the development in this area?

17 MR. PETRY: Yes, Member Grinnell.

18 MEMBER GRINNELL: Thank you.

19 MR. PETRY: We can now look at KOP-2. This is,  
20 again, key observation point 2. And this represents a  
21 view looking southwest from the private park within the  
22 residential development located adjacent to the project.

23 This KOP, again, was identified to represent  
24 both a residential and a recreational view. Within the  
25 existing condition photograph you can see in the

1 background the Westwing substation, some of the existing  
2 transmission infrastructure associated with it. In the  
3 middle ground you can see some of the existing  
4 residences here within this development. As well in the  
5 foreground you can see the grass associated with this  
6 private park facility located within this residential  
7 development.

8 In the lower image, the simulated condition, you  
9 can see those same conditions with proposed project  
10 facilities added in.

11 We can now --

12 CHMN. CHENAL: Member Noland.

13 MEMBER NOLAND: Just a point of clarification.

14 On the simulation on the bottom, you added the new 230kV  
15 poles. Did you remove the 69kV shorter poles from that  
16 picture?

17 MR. PETRY: Yes. I believe the 69kV  
18 infrastructure was removed, as the existing 69kV line  
19 would be underbuilt, as the project is proposed, onto  
20 those 230kV structures.

21 MEMBER NOLAND: Thank you.

22 MR. PETRY: Now I am just going to key  
23 observation point 3, KOP-3, and the simulation created  
24 from this location. Again, the map in the upper  
25 right-hand corner represents the viewing location, the

1 field of view. We are at a location approximately .75  
2 miles west of the project area looking essentially due  
3 east.

4 And as I described previously with travel route  
5 viewers, which is what this visual simulation is  
6 representing, we look at the direction and duration of  
7 view. So this location is looking directly at proposed  
8 project facilities. In the upper image you can see  
9 Happy Valley Road in the foreground. You can see a wash  
10 culvert passing underneath the roadway.

11 In the lower image, which represents the  
12 simulated condition, you can see, again, much of the  
13 existing Westwing substation and transmission  
14 infrastructure. And you may be able to perceive some of  
15 the monopole structure proposed as part of the project  
16 immediately above the part of the roadway that extends  
17 furthest to the left. It's difficult to make out from  
18 this location.

19 CHMN. CHENAL: And how far away, Mr. Petry, is  
20 the key observation point from the line itself?

21 MR. PETRY: Approximately three-fourths of a  
22 mile.

23 CHMN. CHENAL: In the simulation.

24 MR. PETRY: Yes.

25 CHMN. CHENAL: Okay. Thank you.

1 MR. PETRY: Are there any questions on  
2 simulations at this point?

3 (No response.)

4 BY MR. DERSTINE:

5 Q. Well, with having seen the simulations, do you  
6 want to present the Committee with your conclusions on  
7 visual impacts of the project?

8 A. BY MR. PETRY: Yes. The project overall would  
9 have minimal visual impacts because it will appear  
10 similar to the existing transmission and energy  
11 infrastructure that dominates the landscape and would,  
12 therefore, be compatible with the existing visual  
13 setting.

14 Q. Okay. I think you are prepared to take us  
15 through the flyover, if the Committee sees any value in  
16 that, and the drone images as well if we want to revisit  
17 any of that.

18 CHMN. CHENAL: I think it would be a good idea,  
19 Mr. Derstine, it is a short flyover, to see that again.

20 MR. DERSTINE: Okay.

21 MR. PETRY: Give me one moment to reconnect.  
22 And as with yesterday, I will let this play through. If  
23 there are any questions at any point with the virtual  
24 tour, please stop me, and I will be happy to answer.

25 (A video was played.)

1 BY MR. DERSTINE:

2 Q. Do you want to give us some light narration as  
3 we go along?

4 A. BY MR. PETRY: Sure. So again to orient the  
5 Committee with our location currently, we are looking  
6 northwest from the northeast corner of the existing  
7 Westwing substation. And what we see from this location  
8 is indicated, the area indicated in the green swath is  
9 the proposed CEC corridor, variable width corridor from  
10 100 to 400 feet. We see in yellow the line indicating  
11 the 69, the existing 69kV transmission line. And also  
12 the lines in dark green and lighter green indicate the  
13 proposed project route. We also see right here the  
14 point of demarcation, the point which separates CEC-1  
15 and CEC-2.

16 We are now panning to the north, and you can see  
17 the customer proposed BESS facility as well as the  
18 existing transmission infrastructure extending to the  
19 north.

20 We are looking east now along Happy Valley Road,  
21 panning over the residential development to the north of  
22 the project. Now, looking south, you can again see the  
23 proposed project corridor and existing Westwing  
24 substation infrastructure, the RV storage facility,  
25 existing residential development closest to the project.

1 This is the fire station we discussed previously.

2 MEMBER HAMWAY: Mr. Chairman, can I ask a quick  
3 question of Devin?

4 CHMN. CHENAL: Sure.

5 MEMBER HAMWAY: So is there a wall currently  
6 around the Westwing substation?

7 MR. PETRY: Yes.

8 MEMBER HAMWAY: So there is going to be a wall  
9 around that, and then there is going to be a different  
10 wall around the battery BESS system?

11 MR. PETRY: Based on the testimony I heard  
12 yesterday, I understand there will be a wall around the  
13 BESS system.

14 MEMBER HAMWAY: Okay, thank you.

15 MR. PETRY: We are now viewing in to look from  
16 key observation point 1, KOP-1. And again, this is a  
17 view looking south toward the project from this existing  
18 residential development.

19 We will now make our way to KOP-2, key  
20 observation point 2. This is from within the park  
21 facility located within the residential development  
22 closest to the project.

23 Now we will head west and look from KOP-3, key  
24 observation point 3. That represents the travel route  
25 viewers on Happy Valley Road.

1 At this point we will pan back out and provide  
2 an overview of the project and project area. And again,  
3 if there are any questions from the Committee at this  
4 point I would be happy to answer them.

5 CHMN. CHENAL: Just one, if you could stop.

6 MR. PETRY: Yes.

7 CHMN. CHENAL: And this is testimony from  
8 Mr. Duncan, that APS was going to pay, I believe it was,  
9 \$80,000 for right-of-way.

10 Who is it -- is the payment to AES, or who? I  
11 thought a lot of this line was located on property owned  
12 by APS and the other joint venturers, for lack of a  
13 better word.

14 MR. DUNCAN: Thank you, Mr. Chairman. I don't  
15 have the exact answer. That was a number that was  
16 provided to me by the land department at APS. But I  
17 would be --

18 CHMN. CHENAL: It is not the amount. It is the  
19 fact that APS is paying for a right-of-way when most of  
20 the project is on their own land.

21 MR. DUNCAN: Again, the land is partner owned.  
22 And I don't know if there is expense there. But there  
23 is also a portion that crosses private land that is not  
24 utility owned. It is owned by the 303 Partnership. I  
25 think it is the same owner that owns the land where the

1 RV storage is.

2 CHMN. CHENAL: Okay. I guess I misunderstood.  
3 I thought it was all within, I thought it was all within  
4 the -- it was not all within the substation, but it was  
5 all owned within the land owned by the, you know, the  
6 utility companies. I guess I misunderstood that the  
7 line or the right-of-way is actually going to be on  
8 private property as well.

9 MR. DERSTINE: There is a portion --

10 BY MR. DERSTINE:

11 Q. Mr. Duncan, why don't you use your laser pointer  
12 and show, using the image on the screen, where that  
13 private land owned by 303 Partners is.

14 A. BY MR. DUNCAN: Yes, I would be happy to.

15 The area that is owned by -- they own -- this is  
16 part of what is owned by the 303 Partners, which is the  
17 RV storage facility, but they also own land here that is  
18 just to the west. And that extends slightly down here  
19 on the south.

20 And, I am sorry, I am not going to be able to  
21 draw exactly the boundaries of their parcel, but it is  
22 that corner that does cross. It is still private land.  
23 It is just not owned by the utility partner or any  
24 utility partners.

25 But there is already existing right-of-way there



1 for that 69kV line. We would be seeking an expansion of  
2 that right-of-way, not a new right-of-way.

3 CHMN. CHENAL: So I mean that's the question,  
4 then, is that why the money is going to that private  
5 landowner for this right-of-way is because of that  
6 private land that this line will go over.

7 MR. DUNCAN: I would imagine that's a  
8 significant chunk of it. But I am going to ask  
9 Mr. Spitzkoff to weigh in.

10 CHMN. CHENAL: Okay.

11 MR. SPITZKOFF: Yes. I don't know the numbers  
12 offhand, but even parcels of the land that are jointly  
13 owned by the utilities, there is likely some payment  
14 that needs to be made for the use of that, that piece  
15 also.

16 CHMN. CHENAL: Okay. I don't need any further  
17 information; you don't have to dig for that. I was just  
18 more curious than anything. Thank you. That answers my  
19 question.

20 MR. PETRY: Mr. Chairman, that effectively ends  
21 our virtual tour.

22 CHMN. CHENAL: Yeah. It is a good virtual tour  
23 by the way.

24 MR. PETRY: Thank you.

25 BY MR. DERSTINE:

1 Q. All right. You have summarized the visual  
2 impacts. We have done the tour. I guess we are ready  
3 to move to whether or not there is any sort of cultural  
4 impact from the construction of the project.

5 A. BY MR. PETRY: Yes. So as part of our  
6 inventory, SWCA archeologists completed a review of  
7 previously identified historic sites, structures, or  
8 archeological sites within the study area. The  
9 inventory was completed by consulting the Arizona State  
10 Museum and their AZSITE database, the National Register  
11 of Historic Places, the General Land Office, or GLO,  
12 plat maps, and the USGS historical topographic maps.

13 The inventory revealed that there were no known  
14 historic sites, structures, or archeological sites  
15 within the project area. There were two previously  
16 recorded sites, Hohokam artifacts scatter and a possible  
17 short-term habitation site, as well as another historic  
18 site, another unknown cultural and temporal affiliation  
19 are located approximately a quarter mile away from the  
20 project. Again, no historic sites, structures, or  
21 archeological sites have been identified within the  
22 project area, and thus no direct impacts to cultural  
23 resources are anticipated for the project.

24 Because the existing built environment does  
25 include numerous modern structures, including the large

1 transmission lines, other visual introductions, you  
2 know, any new visual introduction from the project would  
3 not represent a significant change to the visual  
4 landscape, and, as a result, it would have no indirect  
5 effects on cultural resources, including historic sites,  
6 structures, or archeological sites.

7 Q. So you really look at two things, whether the  
8 construction activities to place poles in the ground  
9 would disturb any sort of cultural sites, and at the  
10 same time whether the new structures would in any way  
11 impair the view or have a visual impact on existing  
12 cultural sites that could be seen with the eye. I guess  
13 I hadn't actually focused on that before. I have always  
14 looked or thought about it in terms of whether you would  
15 be disturbing anything in the ground.

16 A. BY MR. PETRY: That is correct. Oftentimes, you  
17 know, there could be no direct effects to a historic  
18 site, but because visual introductions in the vicinity  
19 of that site may change the feel, the sense of feeling  
20 you get from that location, we look at how a project may  
21 indirectly affect that site as well.

22 Q. Okay. And there are no impacts under either  
23 category?

24 A. BY MR. PETRY: Correct.

25 Q. Okay. Do you want to restate any summaries with

1 regard to cultural impacts?

2 A. BY MR. PETRY: Sure. Based on our analysis, the  
3 project would not directly or indirectly affect historic  
4 sites, structures, or archeological sites and would,  
5 therefore, be compatible with the known cultural  
6 resources in the surrounding area.

7 Q. Okay. We, I mentioned and I think you mentioned  
8 the Maricopa Trail. I think our next category of  
9 analysis was impacts to recreation.

10 A. BY MR. PETRY: Yes. As I mentioned previously,  
11 there are a handful of recreational sites within the  
12 project study area. Those include some of those  
13 privately owned what we call pocket parks, smaller parks  
14 located within those residential developments, as well  
15 as the Maricopa Trail.

16 As I mentioned, that trail is located throughout  
17 the valley. It is a trail that runs throughout the  
18 perimeter of the Phoenix metropolitan area and, in this  
19 particular location, travels north of the existing  
20 Westwing substation. That trail can be seen on both the  
21 existing and future land use maps included in the CEC  
22 application. And it is included in the existing land  
23 use map that you see on the right screen now.

24 I will attempt to point that out. It is a light  
25 green line. You can see it running along Happy Valley

1 Parkway here along the east side of the existing  
2 residential development, then along the south side of  
3 that development and the north side of Westwing  
4 substation. It continues from this perspective to the  
5 west along the south side of Happy Valley Road again.

6 At this location the trail primarily follows an  
7 existing roadway. No other existing or planned  
8 recreational facilities were identified within our  
9 inventory.

10 CHMN. CHENAL: Is it a dirt trail? The Maricopa  
11 Trail, is it dirt?

12 MR. PETRY: At this location it is.

13 CHMN. CHENAL: Thanks.

14 MR. PETRY: Yes.

15 BY MR. DERSTINE:

16 Q. Do you want to summarize your conclusions on  
17 recreational impacts?

18 A. BY MR. PETRY: Yes. So during construction, we  
19 anticipate that there could be some short-term access  
20 impacts to the Maricopa Trail at this location north of  
21 the Westwing substation. Again, we expect those to be  
22 temporary and really likely result in a short-term minor  
23 redirect. We would anticipate the trail facilities  
24 would be temporarily relocated to perhaps run along  
25 parallel to Happy Valley Road or somewhere similar. We

1 don't see it disturbing or disrupting the ability for  
2 trail users to get through this area and recreate.

3 No other impacts to recreational facilities,  
4 including the neighborhood parks or planned recreational  
5 facilities, within the project area are expected. And  
6 therefore, the project would be compatible with those  
7 existing and planned recreational facilities.

8 Q. Okay. So you have stated what your opinion is  
9 with regard to the compatibility of the project with  
10 recreation. Do you want to give the Committee your  
11 overall conclusion regarding the environmental  
12 compatibility of the project?

13 A. BY MR. PETRY: Sure. Maybe briefly before I do  
14 that, we would want to step back --

15 Q. Oh.

16 A. BY MR. PETRY: -- look in Exhibit H.

17 Q. I skipped right over. I said we would come back  
18 over it, and I am glad you reminded me.

19 A. BY MR. PETRY: You know, as you indicated  
20 previously, Mr. Derstine, Derstine, as part of our land  
21 use --

22 CHMN. CHENAL: It is Derstine.

23 MR. DERSTINE: I will answer to anything.

24 MR. PETRY: As part of our land use inventory,  
25 we do reach out to the jurisdictions to understand what

1 their future land use plans are in the project area.  
2 And that information was mapped in our planned land use  
3 map included in the CEC application.

4 In addition to that, we sent follow-up letters  
5 to various jurisdictions and other entities in order to  
6 try to understand whether any changes have occurred  
7 since our initial inventory and, you know, make sure  
8 that we are accounting for any of those planned land  
9 uses or planned developments within the proximity of the  
10 project.

11 As part of that inventory, we did send out what  
12 we call Exhibit H letters. An example of that letter is  
13 indicated in Exhibit H of the CEC application. And  
14 those letters were sent to 11 entities that are included  
15 in Exhibit -- excuse me -- Table H-1 of the CEC  
16 application. We sent those letters out in March of  
17 2021.

18 CHMN. CHENAL: Mr. Petry, let me ask a quick  
19 question. Back on the plans, information obtained from,  
20 it says the City of Peoria general plan and then the  
21 Maricopa County comprehensive plan and then MAG's land  
22 use mapper.

23 I understand what a general plan is for a city  
24 or town. Does the Maricopa County comprehensive plan  
25 kind of serve the same purpose as the general plan that

1 a city or town would have?

2 MR. PETRY: Yes, it does. Whereas those general  
3 plans developed and implemented by cities or towns  
4 relate just to those incorporated areas, the Maricopa  
5 County comprehensive plan would relate to those  
6 unincorporated areas within the county, and similarly  
7 planned future land uses, the intentions of the  
8 jurisdiction for various land uses within specific areas  
9 within the county.

10 CHMN. CHENAL: And just as zoning needs to  
11 follow the general plan in cities and towns, is that  
12 also true at the county level where the zoning needs to  
13 follow the comprehensive plan?

14 MR. PETRY: Yes.

15 CHMN. CHENAL: And then MAG's land use mapper, I  
16 am not familiar with that, but is that, again, kind of  
17 an overall plan looking future -- a forward-looking plan  
18 for future development in Maricopa area -- government  
19 area?

20 MR. PETRY: Not quite. The MAG, Maricopa  
21 Association of Governments, land use mapper is a very  
22 useful tool available on land that really takes into  
23 account the planning completed by multiple jurisdictions  
24 within the Maricopa County region. That includes  
25 information received from those cities and towns,



1 information from Maricopa County itself, and provides  
2 just a really convenient online resource for looking at  
3 some of those various land uses.

4 Sometimes what we will find is that in areas in  
5 unincorporated Maricopa County, some of the cities and  
6 towns, or those jurisdictions, will plan for future  
7 developments outside of their jurisdiction into those  
8 unincorporated areas just planning into the future. And  
9 so what the Maricopa Association of Government's lands  
10 use mapper does, conveniently, is take into account some  
11 of those various planning jurisdictions' plans and where  
12 they may overlap. So it is a very handy resource for  
13 just looking at how some of those planning documents at  
14 a spacial, from a spacial perspective really integrate.

15 CHMN. CHENAL: So it is kind of a compilation of  
16 the various land use plans applicable to a particular  
17 area or space?

18 MR. PETRY: And they help guide our mapping for  
19 these types of land uses. Often what we will find, we  
20 can look at something that's included in a comprehensive  
21 plan and it may differ slightly from what is included on  
22 the MAG land use mapper. We will then coordinate with  
23 those jurisdictions to understand which data we should  
24 really be referring to. We found in some instances that  
25 MAG data, Maricopa Association of Governments data, is

1 more up to date than those local jurisdictions.

2 CHMN. CHENAL: So it is like interactive with  
3 overlays. So you pick a particular area and the mapper  
4 will indicate which jurisdictions have planned or in the  
5 future are planning for development in that area.

6 MR. PETRY: Yes.

7 CHMN. CHENAL: Okay. Thank you very much.

8 MR. PETRY: You are welcome.

9 BY MR. DERSTINE:

10 Q. Your last bullet there on Slide 163 says letters  
11 sent to 11 entities. Can you identify or run through  
12 the list.

13 A. BY MR. PETRY: Yes. Those Exhibit H letters  
14 were sent to these 11 entities listed on the left  
15 screen. Those include the Arizona Department of  
16 Transportation; the Arizona Game & Fish Department; the  
17 State Historic Preservation Office, or SHPO; Arizona  
18 State Land Department; the Bureau of Land Management;  
19 City of Peoria; Maricopa County; Maricopa Water  
20 District; Salt River Project, or SRP; Western Area Power  
21 Administration, or WAPA; and Tucson Electric Power  
22 Company.

23 Q. And some of those, for example TEP and SRP, they  
24 were included because of their -- they are participants  
25 at Westwing, is that right?

1 A. BY MR. PETRY: That is correct.

2 Q. Okay. So you sent letters out to those  
3 11 entities. Did anyone write you back?

4 A. BY MR. PETRY: Yes. We received responses from  
5 the Arizona Department of Transportation, which are  
6 shown on the right side screen. ADOT provided a  
7 response providing notice of a planned freeway project  
8 on Loop 303; Arizona Game & Fish Department provided the  
9 standard environmental online review tool report; and  
10 one response from Salt River Project, or SRP, noting  
11 that SRP has found no conflicts with the proposed  
12 project. No other written responses to the Exhibit H  
13 mailings were received.

14 Q. Okay. The SRP response is interesting in the  
15 sense that one of the questions that Staff had raised  
16 was the potential risk of the battery storage project to  
17 the Westwing substation, of which SRP is a participant,  
18 as well as the Perkins substation, of which SRP is a  
19 part owner. And SRP responded to your letter here  
20 regarding the transmission line and indicated they have  
21 no concerns?

22 A. BY MR. PETRY: That is correct.

23 Q. Okay. Anything else you want to cover on the  
24 responses to your Exhibit H letters?

25 A. BY MR. PETRY: No.

1 Q. Okay. Do you want to take us back to your  
2 overall conclusions regarding the environmental  
3 compatibility of the transmission line project, the  
4 Westwing interconnection project?

5 A. BY MR. PETRY: Yes. The project conforms with  
6 the applicable management plan, which is the Maricopa  
7 County comprehensive plan. It is located in proximity  
8 to existing 500, 345, 230, and 69kV transmission and  
9 subtransmission infrastructure. It is proposed to  
10 largely follow an existing transmission line alignment,  
11 and is located in an area planned for public and quasi  
12 public, mixed use, and commercial land uses.

13 When looking at the total environment, the  
14 project would have minimal effects to the existing and  
15 planned land uses, recreation, visual, cultural, and  
16 biological resources.

17 In my professional opinion, based on our  
18 analysis, the project is environmentally compatible with  
19 the factors set forth in Arizona Revised Statutes  
20 Section 40-360.06, and consistent with the previous  
21 projects approved by the Siting Committee.

22 Q. Thank you.

23 Does that conclude your testimony on  
24 environmental issues, Mr. Petry?

25 A. BY MR. PETRY: Yes, it does.

1 MR. DERSTINE: I would tender Mr. Petry, and I  
2 overlooked tendering Mr. Duncan ahead of time, for  
3 cross-examination. And I think we squeezed  
4 Mr. Spitzkoff into the middle of all that on noise and  
5 EMF. So all three members of the panel are available  
6 for cross-examination or further questions for the  
7 Committee.

8 CHMN. CHENAL: All right. Thank you,  
9 Mr. Derstine.

10 Any further questions from the Committee?

11 MEMBER HAMWAY: Mr. Chairman, I have one.

12 CHMN. CHENAL: Yes, Member Hamway.

13 MEMBER HAMWAY: So I am going to admit I was  
14 confused for two days on this placemat. There, at the  
15 bottom on the right-hand side, there is a 230kV Westwing  
16 to Surprise and TEP, and thought that that was part of  
17 the project. So my suggestion is changing the colors a  
18 little bit. Is it part of the application?

19 MR. DERSTINE: Mr. Petry.

20 MR. PETRY: Member Hamway, thank you for the  
21 question.

22 If we look at this map that you are referring  
23 to, I think, you know, look at what is intended to be  
24 displayed as a double circuit transmission line that  
25 includes both 230kV and 345kV facilities or conductors.

1 And what we found is that this map in the CEC  
2 application itself is better represented through the  
3 color, the colors. They were intended to include both a  
4 light blue and a purple dashed line. The printing that  
5 was done for these placements didn't come out as  
6 clearly, and it looks to be a light blue and black  
7 dashed line. It is not as descriptive as it is in the  
8 actual CEC application.

9 So to answer your question, that portion, the  
10 APS 230 Westwing to Surprise and the TEP-345 Westwing to  
11 Pinal West, is not a part of the project.

12 MEMBER HAMWAY: Right. I just wanted to know.  
13 I have been waiting for two days to get to that line,  
14 and it was confusing to me.

15 MR. PETRY: Thank you.

16 CHMN. CHENAL: Okay. Member Haenichen.

17 MEMBER HAENICHEN: These comments and questions  
18 are going to be related to the electromagnetic field  
19 issue we talked about earlier.

20 First of all, just an observation. The one  
21 slide that showed it had a chart associated with it for  
22 various household appliances like hair dryers and  
23 microwave ovens for magnetic field strengths, I believe  
24 that if there are any negative effects to the human body  
25 from these fields that's kind of misleading the way

1 that's presented. Because a transmission line is 24/7.  
2 Maybe this one in this project won't be quite that much,  
3 but most of them are. Whereas, these appliances are  
4 only on for short periods of time. So better, instead  
5 of just showing a milligauss, but to talk about  
6 milligauss hours, and then you get a better feel for the  
7 exposure.

8 Now, the next one is a question that I am not  
9 sure any of us can answer, but I will ask it anyway. I  
10 want to know how do fields -- let's just talk about  
11 magnetic fields for the moment, aggregate. And here is  
12 what I mean by that. Let's say you are an observer and  
13 you are charged by your employer to measure the magnetic  
14 field at a certain observation point, hopefully one  
15 where people live close to these sources or congregate  
16 for some reason. And in addition to the little meter  
17 you have to measure these fields, you have a keyboard  
18 that has switches on it and you can turn off any or all  
19 of the transmission lines that are there and then  
20 measure the fields one at a time.

21 My question is: How do they aggregate? For  
22 example, let's say you turn it on line number one and it  
23 is eight milligauss at that distance. Then you turn  
24 that off and you turn on line number two, and it is nine  
25 milligauss at that distance. If you turn them both on,

1 would it be 17? And I am not sure any of us know the  
2 answer to that.

3 MR. SPITZKOFF: Member Haenichen, I am not going  
4 to be able to provide a direct answer to that question.  
5 However, magnetic fields do interact with each other.  
6 And, in fact, sometimes they do cancel each other out.  
7 They don't --

8 MEMBER HAENICHEN: I understand.

9 MR. SPITZKOFF: -- just add to each other. But  
10 beyond just that piece of information, I cannot answer  
11 your question specifically.

12 MEMBER HAENICHEN: Okay. Thank you.

13 CHMN. CHENAL: Any further questions from the  
14 Committee?

15 (No response.)

16 CHMN. CHENAL: So let me ask Ms. Grabel if she  
17 has any cross.

18 MS. GRABEL: I do not have any, no.

19 CHMN. CHENAL: Okay. Then, Ms. Scott, Ms. Kane,  
20 I believe you do have some cross.

21 MS. SCOTT: We have a little, Chairman, yes.

22

23

CROSS-EXAMINATION

24 BY MS. SCOTT:

25 Q. I believe this would go to Mr. Duncan, but I am



1 not sure. Whoever can answer the question, we would  
2 appreciate it.

3 You talked about the cost associated with the  
4 project. Can you tell me the best you can generally  
5 what the NEPA process cost was?

6 A. BY MR. DUNCAN: APS did not perform the NEPA  
7 analysis. I don't have that information.

8 Q. Do you know who would have it?

9 A. BY MR. DUNCAN: I would direct that question to  
10 AES.

11 Q. Do you know generally if either APS or AES would  
12 contribute towards those costs?

13 A. BY MR. DUNCAN: I can speak that APS did not  
14 contribute to those costs. I cannot speak for AES.

15 Q. Okay. Mr. Duncan, you also spoke about  
16 alternative routes, correct?

17 A. BY MR. DUNCAN: Yes, I did.

18 Q. I wanted to ask you briefly about the Raceway  
19 substation that was brought up yesterday as was under  
20 consideration at one point. Are you familiar with that  
21 substation?

22 A. BY MR. DUNCAN: I am familiar with that  
23 substation.

24 Q. Can you tell me where that substation is  
25 located?

1 A. I believe it is approximately -- an  
2 approximation -- but approximately 10 miles north of the  
3 Westwing substation.

4 Q. And in what type of environment is it located?  
5 Is it a remote area? Is it within a -- near residential  
6 subdivisions, businesses? Are you familiar with the  
7 area?

8 A. BY MR. DUNCAN: Yes, I am. And I would say that  
9 it is remote.

10 Q. Okay. And one of the reasons that that  
11 substation was taken out of consideration is because of  
12 the private land issue, is that correct?

13 A. BY MR. DUNCAN: My participation in this project  
14 was related to the transmission line between the AES  
15 proposed battery storage facility adjacent to Westwing  
16 and the Westwing substation. I did not have  
17 participation in the selection of the site, including  
18 the exclusion of the Raceway substation.

19 Q. Okay. Fair enough.

20 And the notice, the notice that APS provided was  
21 with respect to the transmission lines, correct?

22 A. BY MR. DUNCAN: Yes.

23 Q. It was not with respect to the storage facility  
24 itself?

25 A. BY MR. DUNCAN: No, it was not.

1 MS. SCOTT: Okay. Chairman, that's all I have  
2 at this point.

3 CHMN. CHENAL: All right. Thank you.

4 So are we at the conclusion of the evidentiary  
5 portion of the hearing? I will ask that of each  
6 counsel. We have to deal with exhibits, of course,  
7 which we will. But I mean other than the exhibits, is  
8 there any additional evidence that any of the parties  
9 wish to provide?

10 MS. SCOTT: Chairman, I am sorry to interrupt  
11 here. I did have a conversation with Ms. Grabel  
12 yesterday, and the Staff would like to ask a few more  
13 questions to Mr. Kumar. And I understand that he will  
14 be available at 1:00.

15 CHMN. CHENAL: All right. So we have Mr. Kumar  
16 to have additional questions. Is there anything else,  
17 Ms. Grabel, from AES's perspective?

18 MS. GRABEL: Not necessarily from AES's  
19 perspective, but Staff also asked me to revisit the  
20 issue of the houses that we looked at yesterday and  
21 which were actually notified in that little area. Do  
22 you recall what I am talking about, the testimony  
23 yesterday? Because you were asking about that.

24 So I compared, if you look at AES-7 -- I really  
25 wish these were page numbered but they are not. But

1 there is an index of property owners within 300 feet  
2 that were listed. And I pulled up Google Maps and  
3 compared the addresses listed here to those houses. And  
4 it looks like there were seven houses on Leather Lane  
5 and Avenida del Ray which comprise the first three rows  
6 of houses that we looked at. And those first three  
7 rows, at least seven homeowners were notified. I  
8 believe it is probably nine, because there are two that  
9 have -- that look like they are personal ownership, but  
10 the addresses are in Wisconsin and California, so I  
11 suspect they are rentals. So I think there are nine  
12 houses within the first three rows that received the  
13 notification.

14 CHMN. CHENAL: Ms. Scott, did you have anything  
15 to add?

16 MS. SCOTT: Chairman, I wanted to ask you if it  
17 would be appropriate to comment on something. I have  
18 not wanted to speak, or I don't believe I am allowed to  
19 speak to individual members of the Committee while this  
20 is going on, this proceeding, so I haven't addressed  
21 some questions that have been made. But I am wondering  
22 if it might be appropriate just to give my position, the  
23 Staff's position on a few of the issues that I have  
24 heard come up, or if --

25 CHMN. CHENAL: I think it would.

1 MS. SCOTT: Okay.

2 CHMN. CHENAL: Let me ask, though, first, if the  
3 applicant has any additional evidence to provide.

4 MR. DERSTINE: You know, I think we have maybe a  
5 few clean-up items that we would do in kind of a panel  
6 wrap-up just to summarize kind of the testimony from  
7 each of our panel members. I suggest maybe we do that  
8 after the lunch break, and we can do that after  
9 Mr. Kumar or before Mr. Kumar addresses those additional  
10 topics that they worked out with Staff.

11 CHMN. CHENAL: That will be fine.

12 MR. DERSTINE: Okay. I missed the colloquy here  
13 with Ms. Scott in terms of her desire to put something  
14 on the record. Can I hear that again?

15 MS. SCOTT: Yes. I wanted to just address an  
16 issue related to the battery storage facility. And the  
17 question has come up, well, why are we looking at this  
18 or considering this when it is not in the statute. I  
19 just wanted to make a brief statement regarding that,  
20 because I have not wanted to engage with members  
21 individually. I don't believe I should be. So I would  
22 like to just state my position on that now.

23 CHMN. CHENAL: Let's do that now, and then that  
24 may raise, you know, requests from any of the  
25 applicants, or APS, to --

1 MS. SCOTT: Sure.

2 CHMN. CHENAL: -- comment or provide some  
3 additional evidence. But sure, let's hear what you have  
4 to say, Ms. Scott.

5 MS. SCOTT: Sure. My position is that this  
6 large scale battery storage is relatively new, and it  
7 was not in existence at the time this statute was  
8 adopted. So as many agencies that are subject to these  
9 statutes find, it is very hard to try to fit new  
10 technology into the wording of a statute. And here, if  
11 we look at the wording of the statute, we would agree  
12 storage does not appear here. But nonetheless, that  
13 facility is part of this project, and it does have an  
14 impact, the safety of this equipment does have an impact  
15 on things that the Commission will ultimately be  
16 considering.

17 And let me just read you what the Commission is  
18 required to balance in a case like this. And this comes  
19 from 40-360.07(B), the last sentence. In arriving at  
20 its decision, the Commission shall comply with the  
21 provisions of 40-360.06 and shall balance, in the broad  
22 public interest, the need for an adequate, economical,  
23 and reliable supply of electric power with the desire to  
24 minimize the effect thereof on the environment and the  
25 ecology of this state.

1           So I guess it would be our position that we  
2 certainly view this full project, including the battery  
3 because the battery will -- could have an impact on the  
4 adequate, economical, and reliable supply of  
5 electricity, as part of what we have to balance.

6           And I think if somehow something went wrong with  
7 this battery that was not contemplated, it could very  
8 well disrupt the supply of electricity. I don't know  
9 how broad that would be. I don't know if anyone does at  
10 this point. But that's our position on that.

11           CHMN. CHENAL: Thank you.

12           Member Noland.

13           MEMBER NOLAND: Thank you, Mr. Chairman. And I  
14 would like to reply to this.

15           We have talked in this Committee for the last  
16 six or seven years about the need for adequate storage  
17 of renewable energy, to make it more efficient, more  
18 affordable, and more reliable in off times when there  
19 was no solar available at night or wind is off. We have  
20 dealt with the same thing you are talking about. The  
21 technology has far surpassed what the statutes gave  
22 authority to this Line Siting Committee and the ACC to  
23 oversee. We have had other storage options that have  
24 not been questioned and have not been scrutinized that  
25 we have approved with other solar projects.

1 Gila Bend is one. It wasn't battery, but it was  
2 another type of potentially volatile system for storage.  
3 That's been in place now for probably nine years. APS  
4 contracted for all of the power out of that facility for  
5 30 years. And I asked this morning if they were still  
6 using the salt vat storage system and the systems that  
7 feed into it from all of the solar.

8 So I think as far as I am concerned, with the  
9 explanation none of us are experts here except maybe  
10 Mr. Clark, Mr. Kumar, and all that, they have touched on  
11 every base to try and develop a different type of  
12 storage from what was at McMicken. And there were five  
13 areas that were determined were the cause for that  
14 catastrophic rolling whatever, anyway, and it wasn't all  
15 the battery storage facility, though most of it was.

16 The other part was the fire people not knowing  
17 how to deal with it, and they caused the massive portion  
18 of that explosion. And there were firefighters hurt.  
19 So I think they have had the fire experts in. They have  
20 redesigned the type of battery storage completely  
21 different from what McMicken was.

22 I think we can second guess this, you know,  
23 every way we want to, but we need battery storage. We  
24 need storage in order for ACC to reach their goals for  
25 clean energy and a reliable source of clean energy for



1 APS, TEP, SRP. All of them are going to have to try and  
2 use the latest, greatest technology to store this,  
3 because, otherwise, we, you know, we are not utilizing  
4 it fully. And especially in the Phoenix area, you know,  
5 there are needs well beyond after the sun goes down.  
6 And that's where the storage comes into play.

7 So I feel comfortable from my perspective with  
8 what we have heard with the way this has been  
9 redesigned, with the people that have been involved,  
10 with the fire experts that have been involved, and  
11 others, that I don't have any reluctance in voting for  
12 this line. I am not going to vote for the battery  
13 storage, but it is part of the whole project. And I  
14 think we need to move forward and trust that the experts  
15 are going to be sure that steps are taken to not have  
16 the same kind of incident as happened at McMicken.

17 Thank you, Mr. Chairman.

18 CHMN. CHENAL: Let me just jump in here. I  
19 think, Ms. Scott, you raised the issue that I touched on  
20 yesterday or the day before. And that is the  
21 jurisdiction of this Committee to discuss what is at the  
22 end of the line in this case, which we all admit is not  
23 within, technically, the jurisdiction. It is the line  
24 itself. I know we have gone into some detail there.

25 You mentioned that the Commission has to balance

1 the need versus impacts and other issues. And I don't  
2 think I have ever done this before. I just want to let  
3 the Committee know that that's also within our  
4 jurisdiction. And I will cite -- I will read from a  
5 case. It is the Grand Canyon Trust versus the Arizona  
6 Corporation Commission case decided in 2005. And this  
7 is what the court said:

8           The factors the Siting Committee must consider  
9 in deciding whether to issue a CEC are set forth in  
10 A.R.S. Section 40-360.06. These factors contain  
11 sufficient breadth to allow the Siting Committee to  
12 consider the need for power as a factor in considering a  
13 CEC application should it choose to do so. The statute  
14 also allows the Siting Committee to impose reasonable  
15 conditions upon the issuance of a CEC.

16           So I think the court actually said that, while  
17 the statute specifically says that the Commission has to  
18 consider need, we have a Court of Appeals decision that  
19 says that that's also within the jurisdiction of the  
20 Committee.

21           If you want to add a comment, Ms. Scott, fine.  
22 But I think in fairness, I should let the intervenor and  
23 the applicant, if they want to comment on that. They  
24 may have a different view of it.

25           I appreciate that it is a tough issue. And it

1 is going to come up in future cases, and what is the  
2 ability of this Committee to impose conditions on the  
3 line that are really conditions on the ultimate project  
4 here. And that's frankly what I have been wrestling  
5 with. And I think we are limited in that regard.

6 But anyway, I would like to hear from you and  
7 then maybe, in fairness, to allow Ms. Grabel and APS's  
8 attorneys to comment.

9 MS. SCOTT: Chairman and Committee Member  
10 Noland, I appreciate all of the comments and I  
11 understand them. Believe me, the Staff and the  
12 Commission are very supportive of batteries and storage  
13 units and know the necessity of them for our energy  
14 future. So we are very supportive of that.

15 The thing that was of concern was the proximity  
16 to the residential subdivisions because of the new  
17 design and the untested nature of it, at least  
18 operationally.

19 But I think, in looking at the reliability issue  
20 and need, but the reliability in particular, the  
21 Commission has to be satisfied that this whole project  
22 is not going to threaten that. While you are siting the  
23 line, the battery is why these lines are being put in  
24 and rearranged. So the Commission has to, I believe,  
25 look at everything to determine that the reliability to

1 the customer and the grid will not be threatened.

2 CHMN. CHENAL: Do you believe, Ms. Scott, that  
3 based on the evidence submitted so far that we have  
4 created a good record for the Commission to analyze that  
5 issue if it decides to do so?

6 MS. SCOTT: Yes, Chairman. I have a few more  
7 questions of Mr. Kumar, but I think the Committee has  
8 put together an excellent record, yes.

9 CHMN. CHENAL: All right. Thank you.  
10 Member Gentles, and then we will go to --

11 MEMBER GENTLES: If there had not been this  
12 extensive cascading thermal runaway event at McMicken,  
13 would we be having this conversation?

14 MS. SCOTT: That's a good question. I think  
15 that we probably would. But I think that is one of the  
16 factors that probably has precipitated more concern and  
17 review of these storage facilities. And I think when  
18 you look at McMicken, it was two megawatts. Now we are  
19 talking about 100 megawatts that potentially will go up  
20 to 200. And while there has been a lot of evidence on  
21 the design, the new design, which is good and I think  
22 was necessary, a new technology is a new technology.  
23 And when it has not been subject to operation for more  
24 than six months in California or so, it still, I think,  
25 raises some concern. But that's an excellent question.

1 I think it is a little of both.

2 CHMN. CHENAL: All right.

3 MS. SCOTT: Thank you.

4 CHMN. CHENAL: Ms. Grabel, I know this is a lot  
5 more like a closing argument. I know it is. But I just  
6 don't want to close the evidence in case something is  
7 said where the applicant or AES would like to provide,  
8 you know, clean-up on an issue on something that's said,  
9 so that's why we are doing a little out of order.

10 Ms. Grabel, I would like to give you the  
11 opportunity, and then the attorneys for APS also an  
12 opportunity, to comment on the issue that Ms. Scott  
13 raised.

14 MS. GRABEL: Certainly. Thank you, Chairman.  
15 Thank you, Committee.

16 I appreciate the Commission's concerns. I would  
17 say that, you know, we have been in many, many line  
18 siting proceedings that have as a generating resource a  
19 nonthermal generation source. And I think the Committee  
20 and the Commission has always conceded that the  
21 Commission and the Committee lack jurisdiction over  
22 that. I think the argument that Ms. Scott just made  
23 could apply to any nonthermal generating resource.

24 I think, therefore, that were the Committee or  
25 the Commission to impose a condition on the CEC that

1 attached to the generating resource, that could provide  
2 a legal issue. And I think that's something that I  
3 think the Committee should consider when they are  
4 deliberating on this, and I think it is something that  
5 the Commission should consider when they are voting on  
6 it. The need for supplies, understood, but it is  
7 typically applied using the factors that are set forth  
8 in the statutes. And a nonjurisdiction generation  
9 resource doesn't fall within those statutes.

10 So I think my client has been, I think, very  
11 forthcoming with the information. We talked off line  
12 with Staff giving them all the information they wanted;  
13 we put it in the record as requested. I just totally  
14 understand, especially given the proximity to  
15 residences, why this is so concerning to them. And  
16 that's why we went sort of above and beyond, we think,  
17 in terms of providing that level of detail and  
18 information.

19 CHMN. CHENAL: All right. And I concur with  
20 that. You and the applicant have both really fully  
21 cooperated and given, you know, all the information that  
22 has been requested, and I thank you for that.

23 Mr. Derstine, Ms. Spina, any comments?

24 MR. DERSTINE: Yeah. I wasn't ready with my  
25 closing argument yet.

1 CHMN. CHENAL: You will have an opportunity,  
2 don't worry. This is just on the issue that Ms. Scott  
3 raised.

4 MR. DERSTINE: And I appreciate Ms. Scott laying  
5 out Staff's position. And number one, I always, I know  
6 I personally and I know APS always appreciates Staff's  
7 involvement and their intervention in this case. And  
8 their ask in this case was to make a record on these  
9 battery storage issues.

10 And although my initial reaction was that is not  
11 within the jurisdiction of the Commission or the  
12 Committee, we also thought that this was a good forum  
13 and a good opportunity to address those questions. And  
14 I think we have done that. And I think through Staff's  
15 questions the Committee does have a good record, and  
16 that record will go up to the Commission.

17 I think what the record shows is that there has  
18 been ample evidence on the safety of this battery energy  
19 storage system. Staff hasn't presented any evidence to  
20 the contrary.

21 I think the uncontradicted evidence is that this  
22 storage facility incorporates the latest codes and  
23 standards directed to safety of a large scale energy  
24 storage. This system is not new, unproven technology.  
25 Lithium-ion battery storage facilities have been in

1 operation and use for some time. I think as Member  
2 Haenichen pointed out, we all have lithium-ion batteries  
3 in our pockets, in our phones, in our computers. Yes,  
4 the technology is -- it is expanded and greater, but  
5 this isn't new, untested technology. Technology that's  
6 in place and planned to be used in the AES battery  
7 storage system utilizes the same basic technology.

8           What is incorporated and what is different is  
9 that there are new safety measures. You have an  
10 enclosure that can't be opened by first responders. You  
11 have a design of the system that there is separation,  
12 there is barriers to this thermal runaway which was the  
13 leading cause of the McMicken explosion. And you have  
14 much greater outreach and engagement and training with  
15 first responders.

16           So I would think that Staff would be supportive  
17 of this project for the simple reason that it is  
18 probably the safest and the best that's being developed  
19 at this time. It incorporates the greatest learning  
20 from McMicken as well as in the industry. So I would  
21 hope that Staff would support it.

22           And I think as Member Noland accurately pointed  
23 out, there are a number of solar plus storage projects  
24 that have been sited without Staff asking questions and  
25 weighing in. And I think Case 189 was the Papago



1 project, and was before this Committee not too long ago,  
2 solar plus storage. And when I looked at the  
3 application, it is projecting a 1200 megawatt hour  
4 storage facility. I didn't hear anyone raising  
5 questions about -- not that they shouldn't have.

6 But here we are, and this is the opportunity to  
7 ask questions and to answer them, and we have answered  
8 them. And I think the overwhelming evidence, it is  
9 uncontradicted it, establishes this is a safety  
10 facility. It doesn't pose a risk to residents. It  
11 doesn't pose a risk to the grid. Those are all good  
12 questions, important questions, and they have been  
13 answered.

14 And so, you know, Ms. Scott is correct. The  
15 siting statute was enacted in the '70s. Solar projects  
16 weren't a thing. Large scale utility scale storage  
17 wasn't a thing. Renewables weren't a thing. And they  
18 are not covered by the statute, and they probably should  
19 be at some point in time. But the statute is what it  
20 is. The statute establishes what is within the  
21 jurisdiction of this Committee and the Commission.

22 And so I appreciate Staff being here raising its  
23 questions. They have been answered. And it shows that  
24 there are really two things. This transmission line is  
25 compatible. It does address the need for safe and

1 reliable power. And what is at the end of the line,  
2 besides the discussion we have had about the safety of  
3 battery storage, was also covered extensively, and it  
4 shows there is no evidence that it is not. There is no  
5 evidence that it's a risk to residents. There is no  
6 evidence that it's a risk to the grid.

7 CHMN. CHENAL: Well, that's going to be  
8 interesting to hear what additional information you  
9 provide in a closing statement.

10 MEMBER GRINNELL: Mr. Chairman.

11 CHMN. CHENAL: But you will have that  
12 opportunity.

13 Yes, Member Grinnell.

14 MEMBER GRINNELL: I would just like to opine on  
15 a couple discussions.

16 Number one, I think in the urgency to achieve  
17 the goal of the Commission by 2050 to have no fossil  
18 fuels as far as our energy is concerned is an honorable  
19 goal. Sometimes I think we rushed to get to that goal  
20 maybe sooner than we -- instead of being a little more  
21 patient.

22 But I think more important for this discussion,  
23 and I think for future discussions regarding these type  
24 of storage, I keep hearing about what is the  
25 jurisdiction and we have no jurisdiction to do this and

1 we can't do that.

2 But we have a public interest to look out for.  
3 And I think the neighbors and I think the lack of  
4 outreach by the battery company to the surrounding  
5 neighbors, even though they didn't have to, would have  
6 been advantageous in our discussions.

7 I would also like to address something. I went  
8 to firefighting school. And one of the things, after  
9 four hours, I don't know how much longer you can let  
10 something burn. Yes, maybe the firefighters should have  
11 opened this up, but four hours? Something had to happen  
12 someplace. And so I don't blame the firefighters for  
13 trying to do something. It was a bad experience and  
14 unfortunately caused injury.

15 But I think when we get so locked up into these  
16 regulations and what our jurisdiction is and isn't, we  
17 sort of lose sight of the overall importance of being  
18 extra -- taking the extra effort, even though it is not  
19 part of the regulation, to inform all parties,  
20 particularly the neighbors, and the sensitivity of this  
21 issue, and to ensure that our future discussions  
22 incorporate this policy. And I would hope the counsel  
23 on all sides would advise their clients maybe we should  
24 do even more.

25 I have to concur with the Chairman's comments

1 about APS's outreach. I mean that's phenomenal, a click  
2 rate like that. And given the remote area of this whole  
3 area, that is phenomenal. And I think for future  
4 developments, whether they are solar or battery or  
5 whatever else, we have learned a valuable lesson here,  
6 because we cannot afford to side on the position of  
7 arrogance that's not within the rules. We must be much  
8 more forthcoming.

9 Thank you, Mr. Chairman.

10 CHMN. CHENAL: You bet.

11 Okay. Let's -- I, we all know the problem.  
12 Mr. Derstine commented on it. I think everyone has. We  
13 have got an outdated statute. And Staff raised possible  
14 safety issues. We are trying to beat a square peg in a  
15 round hole, and I think we did as well as we could with  
16 this hearing to kind of deal with the safety,  
17 jurisdictional, all the issues presented. So I feel  
18 like we have at least made a good record.

19 And, you know, we don't have to decide the  
20 jurisdiction issues; although, maybe I will telegraph  
21 something right here. As much as I would like to put a  
22 condition in there that requires the applicant to comply  
23 with the Exhibit W safety or the Appendix W safety  
24 factors, I think that squarely falls in the discussion  
25 we are having today that that is out of bounds for our

1 Committee.

2 So I mean I, not in every case, but, you know, I  
3 remember when we had the -- I can't remember if it was  
4 SunZia or Southline. It was Southline that came through  
5 to, I think, Apache substation and then, from there,  
6 into Tucson. It was a WAPA line. And we had that same  
7 issue of whether or not this Committee had jurisdiction  
8 over the WAPA line. And I had made a ruling at the time  
9 we did not, and we did not have the ability to impose  
10 conditions on that portion of the line, including in  
11 favor of a neighborhood intervenor that wished to impose  
12 certain conditions.

13 It went to the Commission and the Commission did  
14 actually impose a condition on that portion of the line.  
15 But I mean I will just say I didn't, in my opinion, and  
16 I ruled that way, I didn't think the Committee had the  
17 power to do that.

18 And I guess we might actually get to the  
19 deliberations this afternoon. I guess we will see where  
20 we are. But that's certainly not a condition that's  
21 going to -- I am going to suggest for this case, for the  
22 same reason that I didn't think we had the jurisdiction  
23 in the Southline case.

24 Much as I would like to, as much as I would like  
25 to see the statute cover solar plants and BESS and a

1 number of other technologies, I mean if we can consider  
2 the impact of this line, how in God's name should we not  
3 be able to consider the impact of the BESS or a huge  
4 solar plant? I mean obviously that needs to be  
5 addressed. But until it is, we are going to have to  
6 muddle through and continue to bang square pegs in round  
7 holes. And I think we have done the best we can.

8 So with that, maybe it is time for lunch. We  
9 have a 45-minute lunch break because I think Staff has  
10 to be -- cannot accept the lunch gratuitously. So if we  
11 come back at 1:00, we can hopefully take up Mr. Mambar.

12 MS. GRABEL: Kumar.

13 CHMN. CHENAL: And then I know there may be some  
14 additional clean-up questions the applicant has. And  
15 maybe Staff will have a few more questions, and from the  
16 Committee, but at that point, it seems like shortly  
17 after 1:00, 1:30 or so we might actually be able to hear  
18 closing arguments.

19 You know, I am not holding anyone to the time,  
20 but I mean if we are at that point at 1:30, I would like  
21 to get the Committee's view of whether or not we should  
22 proceed with the deliberations this afternoon. I am  
23 fine with that, or we wait until tomorrow morning. I  
24 mean normally I like to wait for the morning, but if we  
25 are at 1:30 and actually ready to deliberate, I think

1 that's close enough. And I certainly would like to hear  
2 the Committee's preference on that point.

3 MEMBER HAMWAY: I would like to continue through  
4 the afternoon. And we have people that need -- you  
5 know, long drives home, so we need to be respectful of  
6 that. And I don't think these CECs are going to be that  
7 hard. So I think we can wrap it up this afternoon.

8 CHMN. CHENAL: Yep.

9 Any objection by the Committee to -- I guess we  
10 can ask the question again when we get to the final, you  
11 know, the closing statements, but it sounds like we are  
12 going to be there pretty quickly.

13 So let's take a 45-minute lunch break that will  
14 get us back here around 1:00.

15 Anything further?

16 MR. DERSTINE: I was just going to add, during  
17 one break where everyone was trying to breathe and get a  
18 break from the heat, we handed out CEC-1 and CEC-2 in  
19 draft red-line form. It uses the Papago case, Case 189,  
20 as the base, shows changes from Case 189. And it  
21 includes the map. And within the CEC itself is a  
22 narrative description of the corridor.

23 CHMN. CHENAL: All right. Thank you.

24 Let's take a 45-minute break for lunch and then  
25 we will come back by 1:00. Thanks.

1 (A recess ensued from 12:18 p.m. to 1:16 p.m.)

2 CHMN. CHENAL: All right. Good afternoon,  
3 everyone. Let's finish up with the hearing, then we  
4 will go into deliberations.

5 Who wants to go first? I think, Ms. Scott, you  
6 might have a few questions if Mr. Kumar is available?

7 MS. SCOTT: Chairman, we had one or two of those  
8 answered with some of the latter witnesses. And  
9 Ms. Grabel has agreed to get me a little bit of  
10 information that the Staff would like later today  
11 because the witness isn't available right now. So  
12 that's sufficient for our purposes. We don't need to  
13 have Mr. Kumar come back.

14 CHMN. CHENAL: Okay. All right. Very fine.  
15 Ms. Grabel, anything further?

16 MS. GRABEL: Nothing further from -- except get  
17 my exhibits admitted. I don't know why I am unable to  
18 speak at the moment. I would like to move --

19 CHMN. CHENAL: Maybe because the air  
20 conditioning really hasn't gone on and they told us it  
21 was going on. Maybe that was the reason.

22 Ms. Spina, Mr. Derstine, is there some follow-up  
23 questions you have of the panel?

24 MS. SPINA: Yes, Mr. Chairman. We would like to  
25 invite our witnesses to sort of provide any last-minute



1 comments that they may have to wrap up their testimony  
2 or presentations.

3 As mentioned at the start of this hearing today,  
4 Mr. Clark is currently out of the room on a conference  
5 call that was important. And so he will be available at  
6 2:00. So I am not sure. We can certainly start with  
7 the other three, and then invite Mr. Clark back in at  
8 that time to do his, if that works for the Committee.

9 CHMN. CHENAL: Well, here is the thing. I don't  
10 know how long you are going to take with these three.  
11 But if not very long, I think we would like to then  
12 begin the deliberations and go to the CECs. So how  
13 important is Mr. Clark to your case? Because the  
14 alternative would be we would have to wait for him  
15 before we got into the deliberations.

16 MS. SPINA: Yeah. He is important, and I would  
17 like him to have the opportunity to wrap up his  
18 presentation. But I think that this will take precedent  
19 over the call. So when we are ready for him, we will  
20 just get him and have him come in. And if he needs to  
21 step away from the call for a minute, I think he is  
22 willing to do that.

23 CHMN. CHENAL: Okay. So all yours.

24

25

## 1 REDIRECT EXAMINATION

2 BY MS. SPINA:

3 Q. Okay. Mr. Spitzkoff, I am going to ask you just  
4 to kick us off here. You provided a lot of testimony on  
5 a lot of different topics right around the, both the  
6 obligation to interconnect, the facility under the FERC  
7 regulations and requirements, you walked us through the  
8 various studies that we have, that APS has performed,  
9 and the agreement process, and certainly there were a  
10 lot of other nuances to your testimony.

11 Given that, and given the fact that your  
12 testimony was spread out over the last couple days, I  
13 wanted to make sure you had an opportunity to sort of  
14 summarize and wrap up and give us any last-minute  
15 thoughts that you might have.

16 A. BY MR. SPITZKOFF: Yes. Thank you.

17 So to summarize, APS is seeking this CEC to  
18 satisfy our FERC interconnection requirements for this  
19 project. We are not -- sorry.

20 What I didn't mention earlier in my testimony  
21 when I was talking about interconnection obligations, a  
22 transmission provider does not have the option to say  
23 no, go away, we won't interconnect you. That's not an  
24 option in the process. We have to entertain those  
25 requests. If there are negative effects to the system,

1 we are obligated to identify those effects, notify the  
2 requester to what those are, and if they are willing to  
3 mitigate those effects, to provide interconnection.

4 So APS is here in that capacity, the capacity of  
5 providing interconnection. We are not here because APS  
6 has a PPA for this project. APS is constructing the  
7 facilities covered by CEC-1 because it involves the  
8 collocation with an existing APS line. Therefore, APS  
9 prefers to be the entity that would construct and  
10 maintain those portions of the project.

11 It is this involvement that brings APS to the  
12 Committee seeking the CECs for this generator tie line.  
13 AES and APS both reviewed the possible routes between  
14 the BESS project and the Westwing 230 bus. Both  
15 companies did, do agree that this is the best route to  
16 accomplish that interconnection.

17 All studies that were performed show limited  
18 impact to the reliability of the grid. I can't say no,  
19 because there is that one 69kV line that could  
20 potentially overload under certain conditions. But that  
21 is a standard, generally a standard result of changes to  
22 the system. The interconnection studies that are  
23 performed make sure that those potential impacts are  
24 studied, they are evaluated, and they are mitigated.

25 So while the BESS may come off line, the loss of

1 that resource is studied. It is planned for, and it is  
2 simply that. It is simply a loss of 100 or  
3 200 megawatts of resources to the grid, which is nothing  
4 unique. There is many other resources out there that  
5 are similarly situated, or even larger than that size.

6 So outside the physical safety of the BESS,  
7 which other witnesses have testified to and concluded  
8 limited effects, the failure of the BESS would be no  
9 different than the failure of any other electrical  
10 component of the grid or the failure of any other 100 to  
11 200 megawatt resource, and pose no significant  
12 reliability impact to the grid.

13 Thank you.

14 MS. SPINA: Thank you, Mr. Spitzkoff.

15 Before we move on to the next witness, we have  
16 had a number of questions related to the RFP that APS  
17 did and the choice of Westwing for this battery  
18 installation. And I think there may still be a little  
19 confusion around that, so I just wanted one more  
20 opportunity here to try to clarify the record.

21 BY MS. SPINA:

22 Q. With respect to that RFP, again, I think we have  
23 established that it was an all source RFP, would you  
24 accept, subject to check, that it actually was issued on  
25 April 26th of 2018?

1 A. BY MR. SPITZKOFF: I would.

2 Q. Okay. And so, to the best of your knowledge,  
3 did it specify Westwing or any other location as an  
4 ideal location for the siting of a resource?

5 A. BY MR. SPITZKOFF: To my knowledge, it did not  
6 specify any location.

7 Q. Okay. And so APS put out an all source RFP  
8 asking for proposals and it was for peaking capacity.  
9 We received a number of submittals to that. And again  
10 would you accept, subject to check, that we actually  
11 received 63 different proposals?

12 A. BY MR. SPITZKOFF: I would.

13 Q. Okay. And then is it your understanding that  
14 APS then evaluated all of those proposals and ultimately  
15 landed on the winning proposals or the winning bids?

16 A. BY MR. SPITZKOFF: Yes.

17 Q. Would you accept, subject to check --

18 And I am referring, just for a frame of  
19 reference to the extent anyone else would also like to  
20 check, I am referring to the Commission decision for  
21 these facts in Docket No. E-01345A-19-0049, and it is  
22 Decision No. 77881. And there is a recitation of a  
23 number of findings of fact, and these are included  
24 therein.

25 And so would you accept, subject to check, that

1 there actually were two submissions that resulted in  
2 PPAs as a result of that presentation?

3 A. BY MR. SPITZKOFF: Yes.

4 Q. And one of those is this PPA that we are talking  
5 about here for Westwing?

6 A. BY MR. SPITZKOFF: Yes.

7 Q. And the other was at a different substation  
8 called the El Sol substation in Youngtown. Is that your  
9 understanding?

10 A. BY MR. SPITZKOFF: Yes.

11 Q. Okay. And so we have heard some discussion back  
12 and forth about the Raceway substation and why was this  
13 project proposed for Westwing versus Raceway or  
14 something else. And just for clarity, I believe Raceway  
15 came up in this discussion because Mr. Kumar mentioned  
16 that AES had actually made two submittals into that RFP,  
17 one was at Westwing and the other was at Raceway, is  
18 that correct?

19 A. BY MR. SPITZKOFF: Yes.

20 Q. So it was not a specific, there was no sort of,  
21 you know, we want -- APS was not asking for proposals  
22 specific to Westwing or Raceway; it was just an all  
23 source RFP?

24 A. BY MR. SPITZKOFF: Correct.

25 Q. Okay. Thank you very much, Mr. Spitzkoff.

1 Mr. Duncan, is there anything that you would  
2 like to say to sort of summarize and conclude your  
3 presentation?

4 A. BY MR. DUNCAN: Yes. I will just offer a brief  
5 summary.

6 I just want to say that this transmission line,  
7 even though it is literally just a half mile in length,  
8 one of the shortest transmission lines I think that has  
9 been before this Committee, that nonetheless, even that  
10 short length, the presence of many other transmission  
11 lines, the rebuild of an existing 69kV line, the  
12 proximity of the Westwing substation, that APS  
13 nonetheless went through our traditional siting process,  
14 conducted extensive public outreach, and did everything  
15 we could to notify the public about our transmission  
16 line project and get their feedback to make sure we were  
17 doing the process the best that we could. And it is my  
18 opinion that this route is the appropriate route for  
19 this project, and that our processes were complete and  
20 robust.

21 Q. Thank you, Mr. Duncan.

22 Mr. Petry, I will ask the same of you. Is there  
23 anything you would like to share with the Committee to  
24 summarize and wrap up your presentation today?

25 A. BY MR. PETRY: No, thank you, Ms. Spina, nothing

1 more to add.

2 Q. Thank you.

3 Mr. Clark, thank you for coming back to the  
4 room. I am sorry we have interrupted your other call.

5 I wanted to ask you to talk a moment to  
6 summarize your testimony and presentation in this  
7 proceeding, which has been largely focused on the  
8 battery and the various safety aspects thereof?

9 A. BY MR. CLARK: Yes. So, you know, during the  
10 review of this energy storage project as part of the PPA  
11 negotiations, I found all the safety features, the  
12 testing results that they had performed were very  
13 favorable. It is clear they had taken all the lessons  
14 learned from the McMicken event and worked those into  
15 their design, and not only at the product level, but at  
16 the site level as well.

17 And, you know, the cell level, these aren't new  
18 technologies. These cells, this chemistry has been used  
19 for many years. What is new is the safety requirements  
20 we are putting on them and making them, all of our PPAs  
21 adhere to.

22 So, you know, in addition to that, you know, the  
23 testing results we saw showed that there was no  
24 cascading thermal runaway with the failure of a cell.  
25 And they tested at the cell level, the module level, the



1 rack level. They went through extensive testing. So I  
2 definitely would say that they have gone very far beyond  
3 what most product manufacturers would do to ensure the  
4 safety of the product and have it fully tested for that.

5 And, you know, all those results are favorable  
6 and they help design a safe product. Even if it didn't  
7 go into cascading thermal runaway, the enclosures are  
8 much smaller and so, you know, I fully believe that an  
9 event could be contained within an enclosure and, from  
10 a, you know, a chemical failure perspective, would have  
11 no impact to Westwing or any property within the  
12 vicinity.

13 Q. Thank you, Mr. Clark. Just one final question  
14 for you, well, final series, I suppose, of questions for  
15 you.

16 We talked earlier with you about the benefits of  
17 batteries to the APS system and to customers. And I  
18 think you had mentioned -- I have some notes here -- I  
19 think you mentioned that it helps APS meet its peak  
20 needs. And it also, among other things, smoothes the  
21 impact of variability of other resources such as solar  
22 and wind. Do I have that correct?

23 A. BY MR. CLARK: Correct.

24 Q. Is it your understanding that, without this  
25 resource or resources that are similar, APS would have

1 to find other peaking resources, natural gas resources  
2 or others?

3 A. BY MR. CLARK: Correct.

4 MS. SPINA: Okay. I have nothing further.  
5 Thank you.

6 CHMN. CHENAL: Thank you very much.

7 Mr. Derstine, anything further?

8 MR. DERSTINE: No.

9 CHMN. CHENAL: Ms. Grabel.

10 MS. GRABEL: No.

11 CHMN. CHENAL: Ms. Scott.

12 MS. SCOTT: No.

13 CHMN. CHENAL: Ms. Kane.

14 MS. KANE: No.

15 CHMN. CHENAL: Okay. Let's deal with exhibits.  
16 Let's maybe start with APS exhibits. AES and, I don't  
17 remember, I don't think the Staff had -- well, see if  
18 there is any exhibits there.

19 MS. SPINA: Yes, Mr. Chairman, we do have a  
20 number of exhibits that have been marked and introduced  
21 and that we would like to admit into the evidentiary  
22 record. Would you like me to give a description or just  
23 the number?

24 CHMN. CHENAL: I think just the number will  
25 suffice.

1 MS. SPINA: Okay. Okay. So then APS would like  
2 to move the admission of Exhibit Nos. APS-1 through  
3 APS-22.

4 CHMN. CHENAL: Okay. APS has moved for  
5 admission into evidence of APS Exhibits 1 through 22.  
6 Any objection?

7 (No response.)

8 CHMN. CHENAL: Hearing none, APS Exhibits 1  
9 through 22 are admitted.

10 (Exhibits APS-1 through APS-22 were admitted  
11 into evidence.)

12 MS. SPINA: Mr. Chairman, I would also note that  
13 the two certificates of environmental compatibility have  
14 been marked APS Exhibit No. 23, that's the CEC No. 1,  
15 and APS-24, which is CEC No. 2. Is it appropriate to  
16 move those into admission at this point or would we  
17 prefer to wait until after the discussion?

18 CHMN. CHENAL: We will wait and I will discuss  
19 that in a moment how we handle those.

20 MS. SPINA: Okay.

21 CHMN. CHENAL: So that takes care of APS  
22 exhibits.

23 AES.

24 MS. GRABEL: Thank you, Mr. Chairman. Yes, AES  
25 would like to move AES Exhibit No. 1 through AES

1 Exhibit No. 7.

2 CHMN. CHENAL: Okay. AES has moved for  
3 admission of Exhibits 1 through 7. Are there any  
4 objections?

5 (No response.)

6 CHMN. CHENAL: Hearing none, AES Exhibits 1  
7 through 7 are admitted.

8 (Exhibits AES-1 through AES-7 were admitted into  
9 evidence.)

10 CHMN. CHENAL: Ms. Scott, I don't remember if  
11 there were any exhibits that were proffered or  
12 discussed.

13 MS. SCOTT: No, there weren't, Chairman.

14 CHMN. CHENAL: Okay. So one last opportunity  
15 for any further evidence from the applicants or  
16 intervenors, the applicant or intervenors.

17 (No response.)

18 CHMN. CHENAL: Should we go then to a short  
19 closing statement? Start with the applicant.

20 MR. DERSTINE: Mr. Chairman, as the applicant  
21 and having the burden of proof on our transmission line,  
22 I guess I, under the rules, have an opportunity to go  
23 first and last. Can I simply skip my first and then I  
24 will finish? I will bring up the end of the pack and  
25 let AES and Staff close first.

1 CHMN. CHENAL: Absolutely, Mr. Derstine.

2 Ms. Grabel.

3 MS. GRABEL: Sure. I will do a short closing.

4 So this hearing, I think, left me with a little  
5 bit of egg on my face with my client because I advised  
6 them, like all lawyers would advise their developers who  
7 are developing non-thermal generation resources, that  
8 the plant wouldn't be discussed at all during the  
9 proceedings, or at least minimally, and I was obviously  
10 quite wrong.

11 I understand, however, very much the Committee's  
12 and the Commission's concern regarding the safety of  
13 battery storage, especially given the proximity to  
14 residences here. I thought that the colloquy between  
15 Ms. Spina and the AES panel yesterday was really  
16 interesting, talking about what a catastrophe would be  
17 when talking about a battery storage project. It  
18 wouldn't be like the explosion of a natural gas  
19 pipeline, where you have huge fires and, you know,  
20 debris going everywhere. You really have a fire, maybe  
21 some smoke contained, given the safety measures that  
22 were implemented after the McMicken event, to one  
23 enclosure.

24 And at McMicken, the real injury, and I think  
25 what the real injury would be in any battery storage

1 event, would be to the first responders. And that's  
2 where I think AES went truly above and beyond what they  
3 were required to do by any governing body in ensuring  
4 that firefighters, the State of Arizona, and the local  
5 firefighters in the City of Peoria were very comfortable  
6 with the storage project that they were designing with  
7 the site that they had.

8 The firefighters can view within the plant  
9 without even having to access it. It is entirely  
10 surrounded by a concrete wall. They have installed the  
11 ability to bring water into the facility, even though  
12 the facility does not require water.

13 So I do think that they personally met with the  
14 local firefighters. The firefighters know my client on  
15 a first-name basis. They call him Kris. They have  
16 routine interactions with them.

17 There is a requirement in zoning approval that  
18 requires the firefighters and the Arizona medical and  
19 firefighters association to approve the site design  
20 before construction can even begin. So I think with  
21 respect to those who would actually be injured by any  
22 event, they have gone above and beyond; the firefighters  
23 are comfortable with the project moving forward.

24 We heard a lot of potential negative things  
25 about battery storage. But what we should remember is

1 how vitally important battery storage is to the  
2 development of the modernized electric grid. We cannot  
3 meet any kind of 100 percent clean energy goals without  
4 battery storage or a similar technology.

5 We heard Mr. Kumar discuss yesterday that  
6 currently battery storage is the most efficient and  
7 effective technology available for handling the power  
8 issues on the grid, not the least of which is dealing  
9 with the intermittency that is brought on currently by  
10 renewable energy. The entity that has jurisdiction over  
11 the land use is comfortable with this, voted unanimously  
12 to approve it, and I ask that the Committee give the  
13 project the same consideration here.

14 Thank you.

15 CHMN. CHENAL: Thank you very much.

16 Ms. Scott.

17 MS. SCOTT: Chairman, Committee members, I have  
18 a very short statement. I just want to start out by  
19 indicating that Staff's purpose of intervening in this  
20 proceeding was to ensure that questions we had and we  
21 thought that the Commission might have were addressed on  
22 certain issues, and also to ensure a full record for  
23 your consideration.

24 On behalf of the Staff, I want to thank all of  
25 you, Chairman and Committee members, for giving us this

1 ability to have these issues addressed and to augment  
2 the record in these areas. We really appreciate it.  
3 And we wish you luck on your deliberation on this.

4 Thank you.

5 CHMN. CHENAL: All right. Thank you.

6 Mr. Derstine.

7 MR. DERSTINE: Believe it or not, I have a few  
8 slides that I think are ready. I have, fortunate enough  
9 to have folks who can check my spelling and punctuation  
10 and fix all the things that I get wrong. So that's a  
11 real benefit, because I am oftentimes wrong, as Member  
12 Haenichen points out.

13 And I don't need -- well, there it is. I don't  
14 need a slide to coach me through the thank-yous.

15 Again, just reiterate Ms. Scott's comments and  
16 Ms. Grabel's, always appreciate the good work of the  
17 Committee, especially under conditions in which you  
18 don't have any water or air conditioning, and also  
19 Colette, Madam Court Reporter, for all her good work.

20 And as I mentioned before, I always greatly  
21 appreciate Staff's involvement. Ms. Scott, Ms. Kane,  
22 thank you so much. I think it always makes these cases  
23 better that you are here, and we always appreciate your  
24 involvement when Staff is willing to participate. And I  
25 think the objective was to make a record here. I think



1 you did that. And I appreciate it. Thank you.

2 It turned out to be a case of about two  
3 different things, in my mind, a simple transmission line  
4 siting case, as I mentioned in my opening, and a case  
5 about battery storage. And I think they are both  
6 important, but different.

7 A CEC application seeks approval of the gen-tie  
8 line, the transmission line. That's what is within the  
9 jurisdiction of this Committee and the Commission. It  
10 is not an application to approve a battery storage  
11 project.

12 The zoning approvals for the storage project are  
13 under the jurisdiction of Maricopa County, and you heard  
14 testimony and evidence on that. And the federal  
15 permitting that was done for the storage project is  
16 under the jurisdiction of NEPA, led by the Western Area  
17 Power Administration, separate and apart from the  
18 proceeding before the Committee today.

19 Let me just touch quickly on Thing One. As I  
20 said, it is a -- this project, the interconnection  
21 project, the transmission line has a simple basic  
22 purpose. That is to interconnect the AES battery  
23 storage project at Westwing. The need is simple, as  
24 Mr. Spitzkoff just indicated. APS has an obligation  
25 under FERC open access tariffs and orders to

1 interconnect to provide interconnection services.

2 The design, you have heard about it; it is  
3 pretty straightforward. It is a short half-mile 230kV  
4 line. We have separated it for CEC purposes into two  
5 segments, a Segment 1, the segment, the longer segment  
6 extending out of Westwing that will be collocated with  
7 the Calderwood-Westwing 69kV line, and the short segment  
8 that takes you into the AES project and interconnects at  
9 their project substation.

10 Location, existing transmission corridor, much  
11 of it in existing APS right-of-way, collocated with an  
12 existing 69kV line.

13 As Mr. Petry testified, there is no impact to  
14 listed species, no impact to land use plans, no visual  
15 impacts, no recreational or cultural impacts.

16 The corridor we have requested is set forth in  
17 the exhibit to the draft CECs we have presented to the  
18 Committee, and are marked as exhibits. It is a 100- to  
19 400-foot corridor. The larger corridor width is within,  
20 largely within the Westwing substation grounds, or just  
21 outside. Right-of-way is 100 to 120. It is going to be  
22 within the existing right-of-way for the 69kV line, but  
23 expanded to allow the two circuits, a 69 and a 230kV  
24 circuit.

25 So the testimony and evidence, what is in the

1 record, we talked about making a record, here is the  
2 record. APS has an obligation to interconnect. The  
3 gen-tie balances the need for adequate, economical, and  
4 reliable power, as well as the desire to minimize the  
5 impact on the environment of the State of Arizona. I  
6 think under the testimony and evidence, we are  
7 requesting, and I think the Committee should grant,  
8 two -- the CECs requested, CEC-1 for the segment from  
9 Westwing to the point of demarcation, CEC-2 from the  
10 point of demarcation to the AES substation.

11 Let's talk about Thing Two, the separate thing  
12 that we spent a fair amount of time talking about and  
13 making a record about. Staff wanted to create a record  
14 on the AES battery storage project and safety and  
15 potential risk to residential developments, Westwing and  
16 Perkins substations, potential risk to residential  
17 developments within the vicinity.

18 Mr. Clark presented testimony on what happened  
19 with the McMicken battery failure. There was an  
20 internal failure of one of the battery cells that then  
21 spread through a thermal runaway within the rack. It  
22 resulted from the production of flammable gases. After  
23 several hours, the door to the enclosure was opened by  
24 firefighters, and that led to ignition of the flammable  
25 environment. And that explosion injured several

1 firefighters.

2 That's a big deal. It is a big deal. APS takes  
3 it seriously. They undertook extensive investigation of  
4 the McMicken fire and the explosion. The report is  
5 presented in a docket to the Commission. It is  
6 available on the APS website for anyone to review. The  
7 company took this event very seriously, and through  
8 that, as Mr. Clark has testified, developed its own  
9 requirements, safety requirements, for any new battery  
10 interconnections or installations that are under a PPA  
11 with APS, such as this one.

12 The testimony and evidence you heard is that the  
13 McMicken battery failure did not pose a risk to the  
14 residents or anyone within 75 feet of that event, that  
15 explosion. The McMicken battery failure did not pose  
16 any risks to McMicken substation equipment which was  
17 less than 15 feet away. The McMicken event did not pose  
18 a risk to the larger transmission system.

19 So the lessons learned and recommendations from  
20 McMicken were to update standards and codes to address  
21 cascading thermal runaway, what happened in the McMicken  
22 battery event; implement designs that slow or halt  
23 thermal runaway using barrier protections between the  
24 cells and between the racks; implement protection  
25 systems for deflagration control -- Mr. Clark has more

1 than once tried to explain to me what deflagration  
2 control is; I understand it to be manage the inflammable  
3 gas that results from a thermal runaway event -- and  
4 maybe most importantly, continuously educate and train  
5 first responders so they know how to deal with these  
6 events if they occur.

7           What the record established, it established the  
8 safety of the AES battery storage project. The AES  
9 project incorporates the latest safety improvements.  
10 The AES project incorporates APS's, Arizona Public  
11 Service Company's, own higher standards and requirements  
12 for safety. The AES project meets or exceeds all the  
13 latest codes and standards. Codes and standards were  
14 updated in response to what happened at McMicken as well  
15 as just the learning from the deployment of utility  
16 scale storage around the country.

17           You know, I think at one point Ms. Scott had  
18 indicated that this is a, you know, a new or unproven  
19 technology. And the lithium-ion chemistry is not new.  
20 It has been around since 1991. Utility scale battery  
21 storage is not new. It has been around since 2012. In  
22 2018, there is 869 megawatts of utility scale battery  
23 storage systems in the United States. And it is greater  
24 today. And 90 percent of those 869 megawatts as of 2018  
25 are lithium-ion chemistry. It is not a new, unproven,

1 untested technology that's being constructed at the AES  
2 project.

3 But I think what we know is that safety is  
4 always top of mind, certainly for APS, and I think it is  
5 for AES. And just, you know, cars are not new and  
6 unproven, but we continue to improve their safety  
7 features. Airplanes are not unproven, but we continue  
8 to improve their safety features. And that was done  
9 here.

10 The testimony was that the AES battery storage  
11 project has been extensively tested and shown that the  
12 design halts cascading thermal runaway at the cell  
13 level, what happened at McMicken. The enclosure for the  
14 AES project for the individual battery enclosures cannot  
15 be opened, as was done with the storage or the container  
16 that was used for the McMicken battery. In addition,  
17 the deflagration control is built into the system. And  
18 we talked about the fact that the enclosure is vented so  
19 that there is not the build-up of pressure and gas  
20 within the enclosure.

21 So the record that Staff wanted to prepare and  
22 get before this Committee and get before the Commission  
23 establishes that there was -- there is no evidence that  
24 the battery storage poses a risk to the residential  
25 developments in the area. The record establishes that

1 there is no evidence of risk to the Westwing or Perkins  
2 substations, there is no evidence of risk to the Arizona  
3 or southwest transmission system. In fact, the  
4 uncontradicted evidence before the Committee, the  
5 uncontradicted evidence that's going on the paper  
6 through the court reporter is to the contrary.

7 So one of the issues that Staff raised was was  
8 there sufficient notice. I mean I think it is an  
9 appropriate question. I don't -- again, Staff and the  
10 Commission don't have jurisdiction to look over the  
11 shoulder of Maricopa County to determine whether or not  
12 Maricopa County's requirement of notifying all residents  
13 within 200 feet is enough.

14 I take Member Grinnell's comment to heart. I  
15 think certainly you would like to see a greater notice.  
16 But that's not in the purview of this Committee. It is  
17 not the purview of the Commission. And the evidence  
18 establishes that AES satisfied the notice requirements  
19 of Maricopa County for their zoning for this project.

20 The overwhelming evidence shows that through the  
21 NEPA process, led by WAPA, over 700 residents were  
22 notified about this project in a half-mile area.

23 And importantly, AES communicated and  
24 coordinated with fire officials about this project.  
25 They continue to do that and will continue to do that

1 through the time that they are obtaining their building  
2 permits and secure all the final approvals to operate  
3 their project.

4 So that's the record. On Thing One, the record  
5 establishes that APS is entitled to a CEC for this  
6 gen-tie line. On the record with regard to Thing Two,  
7 the AES battery storage project does not pose a risk to  
8 residents or the transmission system. Instead, it  
9 incorporates the latest safety measures and protections.  
10 I think that's a good thing. I think Staff and the  
11 Commission would support that. They would expect that  
12 the lessons learned from McMicken would translate into  
13 the next storage project that's built in Arizona. And  
14 this one does.

15 And with that, I submit my final closing  
16 comments, and appreciate your time.

17 CHMN. CHENAL: Thank you, Mr. Derstine.

18 I want to compliment all counsel in this case.  
19 I appreciate that it has probably been frustrating for  
20 various reasons, not the least of which is we kind of  
21 did get into an area that normally we may not get into.  
22 But I appreciate your patience in doing a good job of  
23 assisting the Committee in grappling with this and  
24 trying to create a record.

25 So with that, we now go to the fun part, Thing



1 No. 3. The Thing. I see the signs for The Thing.  
2 Thing One and Thing Two, that's a business opportunity,  
3 I think.

4 So this is how we do it. Let's just review how  
5 we do it. And we have two CECs. We have APS-23 is  
6 CEC-1. And we will start with that on the left-hand  
7 screen. And then on the right-hand screen we will start  
8 with a mirror image of APS-23. But the one on the right  
9 screen will become a living document that will change as  
10 we go through and review and then make changes and vote  
11 as to form. And then we do an up and down vote when we  
12 are completed.

13 That document that we end up with on screen  
14 number 2, we should give it an exhibit number. And it  
15 is going to get complicated to talk about APS-23 and  
16 then the next one will be APS-24. So let's call that  
17 Chair 1, Chairman's Exhibit 1. And then Chairman's  
18 Exhibit 1 will become the final version of the CEC, and  
19 then the applicant will provide that to me and, you  
20 know, in clean format, and then I will sign it and get  
21 it filed.

22 Likewise APS-24, which is CEC-2, we will take up  
23 next on the left screen. On the right screen Chairman's  
24 Exhibit 2 will become the document that we finalize and  
25 vote on as to form. And then we take a roll call vote

1 up and down as to number 2. And then both of those will  
2 be submitted to me, and we will get it filed, assuming  
3 the Committee approves it.

4 So who is the scrivener? I would like to know  
5 who the scrivener is going to be.

6 CHMN. CHENAL: Aileen, are you ready for this?

7 MS. DE LOS ANGELES: Yes, sir.

8 CHMN. CHENAL: Let's put up on the left screen  
9 Exhibit APS-24, and on the right screen will become  
10 Chairman's 1.

11 MS. SPINA: Mr. Chairman.

12 CHMN. CHENAL: Yes.

13 MS. SPINA: If you wanted to start with CEC-1,  
14 that's 23.

15 CHMN. CHENAL: 23, I am sorry, 23. APS-23 is  
16 the left screen, Chairman's 1 on the right screen.

17 So let's go down to the first paragraph.

18 MEMBER NOLAND: Mr. Chairman.

19 CHMN. CHENAL: Yes, Member Noland.

20 MEMBER NOLAND: In getting started I would like  
21 to move that we let the Chairman make any fill-ins or  
22 scrivener errors.

23 CHMN. CHENAL: I have a motion. May I have a  
24 second.

25 MEMBER HAMWAY: Second.

1 CHMN. CHENAL: All in favor say aye.

2 (A chorus of ayes.)

3 CHMN. CHENAL: So looking at the first full  
4 paragraph -- and I will be referring to APS Exhibit 23.  
5 As we go through the pages, and the lines may change on  
6 the right screen, but we will start with the left screen  
7 and try and keep it there. So I would like everyone to  
8 read the first full paragraph of page 1.

9 MEMBER HAMWAY: I move that paragraph.

10 MEMBER NOLAND: Second.

11 CHMN. CHENAL: All right. Should we put in on  
12 exhibit -- okay. Let's, before we move it, it is  
13 August 23rd through August 25th on line 22.

14 Okay. And with that change I have a motion and  
15 second.

16 MEMBER HAENICHEN: Move.

17 CHMN. CHENAL: We are going to put it in track  
18 changes so we see what the changes are. Is it possible  
19 to do them in red?

20 Request from the court reporter, make sure your  
21 mouth is close to the microphone. Keep the ice away  
22 from the microphone.

23 We just need a second to get it set up.

24 Okay. We have a motion and a second. All in  
25 favor say aye.

1 (A chorus of ayes.)

2 CHMN. CHENAL: Let's go to the second  
3 paragraph on page 1.

4 MEMBER NOLAND: Mr. Chairman, I move the second  
5 paragraph, lines 1 through 15.

6 MEMBER HAMWAY: Second.

7 CHMN. CHENAL: Let's --

8 MEMBER HAENICHEN: Second.

9 CHMN. CHENAL: We have a motion and second. All  
10 in favor say aye.

11 (A chorus of ayes.)

12 CHMN. CHENAL: Let's review the next  
13 paragraph on page 1.

14 May I have a motion to approve -- move lines 16  
15 through --

16 MEMBER PALMER: Move line 16 through 21.

17 MEMBER GRINNELL: Second.

18 CHMN. CHENAL: We have a motion and second. All  
19 in favor say aye.

20 (A chorus of ayes.)

21 CHMN. CHENAL: The last paragraph, page 1, lines  
22 22 through 28, we will have to come back and fill in the  
23 vote count, but may I have a motion to approve.

24 MEMBER HAMWAY: So moved.

25 CHMN. CHENAL: Again, remind everyone to have

1 their mouth right up to the microphone.

2 MEMBER GENTLES: Second.

3 CHMN. CHENAL: We have a motion and second. All  
4 in favor say aye.

5 (A chorus of ayes.)

6 CHMN. CHENAL: Okay. Let's go to page 2.

7 MS. GRABEL: Mr. Chairman, just for the record,  
8 I think you are one page number off. The last one was  
9 page 2 and now we are on page 3.

10 CHMN. CHENAL: That's the problem with not  
11 having, yeah, the full screen. Thank you.

12 Okay. We are now on page 3, paragraph 1. And  
13 let's look at lines 1 through 8. And I am looking at  
14 the left screen, which is Exhibit 23. And let's take a  
15 moment to review it.

16 So may I have a motion to approve page 3, lines  
17 1 through 8.

18 MEMBER HAMWAY: So moved.

19 MEMBER NOLAND: Second.

20 CHMN. CHENAL: We have a motion and second. All  
21 in favor say aye.

22 (A chorus of ayes.)

23 CHMN. CHENAL: Now let's look at -- scroll down,  
24 okay. Now let's look at page 3, lines 9 through 13.

25 MEMBER PALMER: Move approval of lines 9 through

1 13.

2 MEMBER HAENICHEN: Second.

3 CHMN. CHENAL: We have a motion and a second.

4 All in favor say aye.

5 (A chorus of ayes.)

6 CHMN. CHENAL: Now we have -- is there a way we  
7 can get lines 14 through 28 on line -- on page 3? Maybe  
8 we can reduce the size of the font. Let's take a moment  
9 to review.

10 MEMBER NOLAND: Mr. Chairman, I move lines 14  
11 through 28 on page 3.

12 MEMBER HAMWAY: Second.

13 CHMN. CHENAL: We have a motion and a second.

14 All in favor say aye.

15 (A chorus of ayes.)

16 CHMN. CHENAL: Let's go to the top of page 4,  
17 lines 1 through 4, please.

18 MEMBER HAMWAY: Mr. Chairman, I move that we  
19 move lines 1 through 4 on page 4.

20 MEMBER HAENICHEN: Second.

21 CHMN. CHENAL: Motion and a second. All in  
22 favor say aye.

23 (A chorus of ayes.)

24 CHMN. CHENAL: All right. Now it will be a  
25 little easier, because we will be reviewing conditions

1 paragraph by paragraph.

2 And let's remember we have seen these conditions  
3 before. The red track changes are changes that were  
4 made and being proposed by the applicant. After each  
5 condition you see there is a reference to a prior CEC  
6 with a number. Let's just assume so we don't have to go  
7 through, we will assume that all those will be deleted  
8 when the version on the right screen is cleaned up. And  
9 any changes that we see, track changes, such as in  
10 Condition 1, it was taken from the prior Papago case,  
11 now this is the APS case, so that name change, I don't  
12 think we have to go through in each case and reflect  
13 each of those changes. Those will just be assumed that  
14 we will be making those.

15 So with that as a background, let's review  
16 Condition 1. And is there any further discussion? If  
17 not, may I have a motion to approve Condition 1.

18 MEMBER HAMWAY: So moved.

19 MEMBER HAENICHEN: Second.

20 CHMN. CHENAL: We have a motion and a second.

21 All in favor say aye.

22 (A chorus of ayes.)

23 CHMN. CHENAL: Condition 2, let's take a moment  
24 to review.

25 MEMBER NOLAND: Mr. Chairman, I move

1 Condition 2.

2 MEMBER PALMER: Second.

3 CHMN. CHENAL: We have a motion and a second.

4 Any further discussion?

5 (No response.)

6 CHMN. CHENAL: All in favor say aye.

7 (A chorus of ayes.)

8 CHMN. CHENAL: Thank you.

9 And just for the record, Member Drago is  
10 appearing by phone.

11 Condition 3, please.

12 MEMBER HAENICHEN: I move Condition 3.

13 MEMBER PALMER: Second.

14 CHMN. CHENAL: We have a motion and second. Any  
15 further discussion? If not, may I have a motion to  
16 approve.

17 MEMBER HAMWAY: So moved. I think we already  
18 did that.

19 CHMN. CHENAL: Oh, all in favor say aye.

20 (A chorus of ayes.)

21 CHMN. CHENAL: Thank you.

22 Condition 4, let's take a moment to review.

23 MEMBER PALMER: Move Condition 4.

24 MEMBER HAENICHEN: Second.

25 CHMN. CHENAL: We have a motion and a second.



1 Any further discussion?

2 All in favor say aye.

3 (A chorus of ayes.)

4 CHMN. CHENAL: Condition 5, any further  
5 discussion? If not, may I have a motion to approve.

6 MEMBER NOLAND: So moved.

7 CHMN. CHENAL: And a second.

8 MEMBER HAMWAY: Second.

9 CHMN. CHENAL: All in favor say aye.

10 (A chorus of ayes.)

11 CHMN. CHENAL: My favorite condition of all  
12 time, No. 6. Any further discussion? If not, may I  
13 have a motion to approve.

14 MEMBER GENTLES: So moved.

15 CHMN. CHENAL: Up to the microphone, please.

16 MEMBER GENTLES: So moved.

17 CHMN. CHENAL: And a second.

18 MEMBER GRINNELL: Second.

19 CHMN. CHENAL: All in favor say aye.

20 (A chorus of ayes.)

21 CHMN. CHENAL: Condition No. 7.

22 MEMBER HAMWAY: I move Condition 7.

23 CHMN. CHENAL: May I have a second.

24 MEMBER RIGGINS: Second.

25 CHMN. CHENAL: Any further discussion? If not,

1 may I have a motion to approve.

2 MEMBER NOLAND: No. Vote.

3 CHMN. CHENAL: Excuse me. All in favor say aye.

4 (A chorus of ayes.)

5 CHMN. CHENAL: Excuse me. Let's review

6 Condition 8.

7 Any further discussion? If not, may I have a

8 motion to approve.

9 MEMBER PALMER: Move Condition 8.

10 MEMBER HAENICHEN: Second.

11 CHMN. CHENAL: All in favor say aye.

12 (A chorus of ayes.)

13 CHMN. CHENAL: Condition 9, take a moment to

14 review.

15 Any further discussion on 9?

16 MEMBER NOLAND: I move Condition 9.

17 MEMBER HAMWAY: Second.

18 CHMN. CHENAL: We have a motion and second. All

19 in favor say aye.

20 (A chorus of ayes.)

21 CHMN. CHENAL: No. 10, any further discussion?

22 MEMBER HAENICHEN: I move 10.

23 MEMBER NOLAND: Second.

24 CHMN. CHENAL: We have a motion and second. All

25 in favor say aye.

1 (A chorus of ayes.)

2 CHMN. CHENAL: Condition 11, any further  
3 discussion? If not, may I have a motion and a second.

4 MEMBER NOLAND: So moved.

5 MR. GRINNELL: So moved.

6 MEMBER HAMWAY: Second.

7 CHMN. CHENAL: We have a motion and a second.

8 All in favor say aye.

9 (A chorus of ayes.)

10 CHMN. CHENAL: Condition 12.

11 MEMBER GENTLES: I move 12.

12 CHMN. CHENAL: May I have a second.

13 MEMBER HAMWAY: Second.

14 CHMN. CHENAL: Any further discussion?

15 All in favor say aye.

16 (A chorus of ayes.)

17 CHMN. CHENAL: 13, any further discussion?

18 MEMBER PALMER: Move Condition 13.

19 MEMBER NOLAND: Second.

20 CHMN. CHENAL: Motion, a second. All in favor  
21 say aye.

22 (A chorus of ayes.)

23 CHMN. CHENAL: 14, any further discussion? If  
24 not, may I have a motion and a second.

25 MEMBER HAMWAY: I move 14.

1 MEMBER GENTLES: Second.

2 CHMN. CHENAL: All in favor say aye.

3 (A chorus of ayes.)

4 CHMN. CHENAL: Condition 15, any further  
5 discussion? If not, may I have a motion and a second.

6 MEMBER HAENICHEN: I move 15.

7 MEMBER HAMWAY: Second.

8 CHMN. CHENAL: All in favor say aye.

9 (A chorus of ayes.)

10 CHMN. CHENAL: 16, any further discussion? If  
11 not, may I have a motion and a second.

12 MEMBER NOLAND: So moved.

13 MEMBER PALMER: Second.

14 CHMN. CHENAL: All in favor say aye.

15 (A chorus of ayes.)

16 CHMN. CHENAL: Condition 17, take a moment to  
17 review. Is there any further discussion? If not, may I  
18 have a motion and a second.

19 MEMBER HAMWAY: So moved.

20 MEMBER HAENICHEN: Second.

21 CHMN. CHENAL: All in favor say aye.

22 (A chorus of ayes.)

23 CHMN. CHENAL: 18, let's take a moment to  
24 review.

25 Let me just ask the applicant. This was the

1 annual certification letter. It has selected a date of  
2 December 2022. That's a little over a year out. But is  
3 that -- maybe just could you, someone just explain why  
4 that date was chosen versus a year from now. Does that  
5 coincide with the normal certification letter cycle?

6 MS. SPINA: Yeah, yes. Mr. Chairman, we  
7 selected December simply I think because, when we were  
8 looking when this case would wrap up and when it would  
9 likely be before the full Commission for a  
10 determination, it seemed like that was for the next  
11 annual time frame.

12 Mr. Spitzkoff, I would ask if you had anything  
13 to clarify or correct in my statement.

14 MR. SPITZKOFF: No. Your statement is correct.  
15 Sorry. APS does file its normal compliance with all of  
16 our active CECs. I think it is December 1st every year.

17 CHMN. CHENAL: Okay. Any further discussion  
18 with Condition 18?

19 MEMBER NOLAND: I move Condition 18.

20 CHMN. CHENAL: May I have a second.

21 MEMBER HAMWAY: Second.

22 CHMN. CHENAL: All in favor say aye.

23 (A chorus of ayes.)

24 CHMN. CHENAL: 19, any further discussion? If  
25 not, may I have a motion and a second, please.

1 MEMBER PALMER: Move 19.

2 MEMBER NOLAND: Mr. Chairman.

3 CHMN. CHENAL: Yes, Member Noland.

4 MEMBER NOLAND: Can I ask a question? They are  
5 supplying that to the board of supervisors, which I  
6 understand. What about Peoria?

7 CHMN. CHENAL: Good catch.

8 MS. SPINA: Member Noland, the reason we omitted  
9 the City of Peoria is because the project is not  
10 technically in City of Peoria limits. So we didn't  
11 include it for that reason.

12 MEMBER NOLAND: Mr. Chairman, I still think it  
13 would be important with being right across the street  
14 and the residences that are in Peoria. It is just one  
15 more copy.

16 MS. SPINA: We have no objection.

17 CHMN. CHENAL: All right. Let's make that  
18 change -- thank you, Member Noland -- on 19 that would  
19 include supervisors, Board of Supervisors Maricopa  
20 County and the City of Peoria.

21 MEMBER NOLAND: With that I move paragraph 19.

22 MEMBER HAMWAY: Second.

23 CHMN. CHENAL: All right. We have a motion and  
24 a second. Any further discussion? If not, may I have a  
25 motion -- excuse me. All in favor say aye.

1 (A chorus of ayes.)

2 CHMN. CHENAL: Condition 20, any further  
3 discussion? If not, may I have a motion and a second,  
4 please.

5 MEMBER HAMWAY: I move condition 20.

6 MEMBER PALMER: Second.

7 CHMN. CHENAL: We have a motion and a second.  
8 All in favor say aye.

9 (A chorus of ayes.)

10 CHMN. CHENAL: 21, any further discussion? If  
11 not, may I have a motion and a second, please.

12 MEMBER NOLAND: Mr. Chairman.

13 CHMN. CHENAL: Member Noland.

14 MEMBER NOLAND: I think this would be the same  
15 thing. I would add City of Peoria --

16 CHMN. CHENAL: Very good. Let's add that.

17 MEMBER NOLAND: -- after Maricopa County. And  
18 with that, I move paragraph 21.

19 MEMBER HAENICHEN: Second.

20 CHMN. CHENAL: All right. May I suggest we take  
21 out the word "and" before -- after county, maybe put a  
22 comma after county.

23 Okay. With those changes, all in favor say aye.

24 (A chorus of ayes.)

25 CHMN. CHENAL: 22, let's take a moment to review

1 Condition 22.

2 Any further discussion? If not, may I have a  
3 motion to approve.

4 MEMBER PALMER: Move approval of 22.

5 MEMBER HAENICHEN: Second.

6 CHMN. CHENAL: Motion and second. All in favor  
7 say aye.

8 (A chorus of ayes.)

9 CHMN. CHENAL: Okay. Now, 23, we need to talk  
10 about that.

11 When the CEC was submitted in draft form  
12 initially at the procedural hearing, 23 was in the form  
13 of CEC that was given to me by the applicant. It had  
14 that provision. And it is a typical provision in our  
15 past CECs. And it had been asked for by Staff at the  
16 ACC hearings ago. So we have kept that in and kept it  
17 going forward. So I know in this case that agreement  
18 has already been entered into by the parties. So maybe  
19 we could hear why that was taken out in this iteration.

20 MS. SPINA: Yes, Mr. Chairman, I would be happy  
21 to speak to that. Before I do, though, I just wanted to  
22 make sure we didn't miss the old 23, which has lost its  
23 number.

24 So the red portion here on the left was the  
25 original 23, and what is designated 23 was the original



1 24. Did you want to speak about the first one first? I  
2 think the formatting, with the red-lining, it lost its  
3 number.

4 CHMN. CHENAL: The Ellwood, the language --

5 MS. SPINA: Yes. That was about the easements.  
6 We eliminated that one because there is no relevant  
7 easement in this instance, so it didn't make sense.

8 CHMN. CHENAL: Exactly. I didn't think we even  
9 needed to talk about it.

10 MS. SPINA: Okay, perfect. I didn't want to  
11 hide the ball there.

12 CHMN. CHENAL: No.

13 MS. SPINA: 23, what is currently showing here  
14 as 23 is in relation to the interconnection agreement.  
15 And the reason that we omitted it was twofold.

16 I think one, as drafted, it requires APS to  
17 provide copies of all agreements, all interconnection  
18 agreements that it ultimately enters into with any  
19 transmission providers. That's not typically what we  
20 do.

21 We are the transmission provider. We are not  
22 entering into agreements with other transmission  
23 providers unless it is a wires-to-wires interconnection,  
24 which they do happen, but they are fairly infrequent.  
25 So we didn't really feel like that it fit the facts of

1 our particular situation.

2 In light of that, we went back through the last  
3 couple of CEC hearings where this was discussed. And I  
4 think there was a bit of discussion on this topic in  
5 CEC 188, which was the UNSE Golden Valley project. And  
6 as we read the back and forth in the transcript, it  
7 appeared that the approach was only to include it where  
8 it was relevant. And I think the discussion in that  
9 case indicated it was mostly relevant in situations  
10 where it was a cross-border interconnection, either in,  
11 one of the examples referenced it was a Mexico-Arizona  
12 interconnection, and in another it was an  
13 Arizona-California interconnection.

14 And so in light of all of that, we have stricken  
15 it. It was originally in the draft that we provided  
16 because we intended to have this conversation at that  
17 time. But as we were correcting some aspects of it, we  
18 figured it might be easier just to strike it and speak  
19 to it that way. So that was the intention and thought  
20 process, but certainly we're open if people feel  
21 strongly, differently.

22 CHMN. CHENAL: Well, I am wedded to my old  
23 habits. And the language we have used in many -- I  
24 agree that the language "any transmission providers"  
25 probably doesn't make sense in this case. But I would

1 like -- maybe if we look at the language as if it read  
2 as follows, and I will look at the right side of the  
3 screen: APS shall provide the Commission Staff with  
4 copies of the interconnection agreements it ultimately  
5 enters into with AES within 30 days of execution of --  
6 well, it has already been entered into.

7 MS. SPINA: Yes. So, Mr. Chairman, we did  
8 propose some language before we struck it. If I could  
9 ask Ms. De Los Angeles to reject the red-lining there  
10 and perhaps we can look at the proposed language.

11 CHMN. CHENAL: Okay.

12 MS. SPINA: Yes, just reject.

13 CHMN. CHENAL: So you anticipated that you would  
14 hear from me on this.

15 MS. SPINA: We anticipated that we might, and we  
16 wanted to be prepared.

17 CHMN. CHENAL: Very good.

18 MS. SPINA: So if you would like, there on the  
19 right-hand screen, I think that is an edit that we made  
20 to try to address the transmission provider piece.

21 Oh, I am sorry, Aileen. Actually we would need  
22 to still strike and any transmission providers in  
23 Arizona.

24 MEMBER HAENICHEN: And remove that gap in the  
25 word construction. Down, down. See the gap between the

1 T and the R?

2 CHMN. CHENAL: What line, Member Haenichen?

3 MS. SPINA: I think we found it.

4 CHMN. CHENAL: Okay, got it.

5 MS. SPINA: Thank you.

6 Does that work for the Committee?

7 MEMBER NOLAND: Well, I think you also need to  
8 strike Papago, do you not?

9 MS. SPINA: Yes. Thank you for catching that.

10 CHMN. CHENAL: And RE.

11 All right. That satisfies me. I am happy with  
12 that language. I think it is a good.

13 MEMBER NOLAND: With those changes, I move 23.

14 MEMBER HAMWAY: Second.

15 CHMN. CHENAL: Motion and second. Any further  
16 discussion?

17 All in favor say aye.

18 (A chorus of ayes.)

19 CHMN. CHENAL: All right. Let's go through the  
20 findings of fact and conclusions of law. The  
21 certificate incorporates the following findings of fact  
22 and conclusions of law. Let's look at No. 1: The  
23 project aids the state and the southwest region of the  
24 United States in meeting the need for an adequate,  
25 economical, and reliable supply of renewable electric

1 power.

2 Any further discussion with No. 1? If not --

3 MEMBER NOLAND: I move No. 1.

4 MEMBER GENTLES: Second.

5 CHMN. CHENAL: Motion and second. All in favor

6 say aye.

7 (A chorus of ayes.)

8 CHMN. CHENAL: I won't read each one of those,

9 but No. 2, let's take a moment and look at it.

10 MEMBER HAMWAY: I move 2.

11 CHMN. CHENAL: We have a motion. May I have a

12 second.

13 MEMBER PALMER: Second.

14 CHMN. CHENAL: Any further discussion?

15 All in favor say aye.

16 (A chorus of ayes.)

17 CHMN. CHENAL: No. 3.

18 MEMBER NOLAND: I move No. 3.

19 CHMN. CHENAL: We have a motion. May I have a

20 second.

21 MEMBER HAENICHEN: Second.

22 CHMN. CHENAL: Any further discussion?

23 All in favor say aye.

24 (A chorus of ayes.)

25 CHMN. CHENAL: No. 4, any further discussion?

1 If not, may I have a motion and a second.

2 MEMBER HAMWAY: I move 4.

3 MEMBER NOLAND: Second.

4 CHMN. CHENAL: All in favor say aye.

5 (A chorus of ayes.)

6 CHMN. CHENAL: No. 5. And this is, of course,  
7 important, given the testimony, the evidence that's come  
8 in on this case.

9 But is there any further discussion on item 5?  
10 If not, may I have a motion and a second, please.

11 MEMBER PALMER: Move finding 5.

12 MEMBER HAENICHEN: Second.

13 CHMN. CHENAL: All in favor say aye.

14 (A chorus of ayes.)

15 CHMN. CHENAL: And item 6, any further  
16 discussion? If not, may I have a motion and a second.

17 MEMBER HAMWAY: So moved.

18 MEMBER NOLAND: Second.

19 CHMN. CHENAL: All in favor say aye.

20 (A chorus of ayes.)

21 CHMN. CHENAL: Okay. Now let's look at the  
22 Exhibit A.

23 MEMBER NOLAND: Do you want a motion on that,  
24 Mr. Chairman?

25 CHMN. CHENAL: Yes, after you look at it, Member

1 Noland, and tell us that it is satisfactory to you,  
2 frankly.

3 MEMBER NOLAND: It is satisfactory to me. I  
4 move Exhibit A.

5 CHMN. CHENAL: We have a motion.

6 MEMBER HAENICHEN: Second.

7 MEMBER GRINNELL: Second.

8 CHMN. CHENAL: And do we have a second?

9 Member Grinnell, did you do a second on  
10 Exhibit A?

11 MEMBER HAENICHEN: I said second.

12 CHMN. CHENAL: Oh, Member Haenichen.

13 MEMBER GRINNELL: It doesn't matter.

14 CHMN. CHENAL: No, but Member Haenichen is a  
15 senior member so he gets it.

16 MEMBER GRINNELL: Yes.

17 CHMN. CHENAL: Any further discussion on  
18 Exhibit A? If not, may -- all in favor say aye.

19 (A chorus of ayes.)

20 CHMN. CHENAL: Okay.

21 MS. SPINA: Mr. Chairman, if I may just quickly  
22 before we move on, I just wanted to clarify APS and AES  
23 have not yet entered into the interconnection agreement.  
24 So when we were discussing Condition No. 24, I think  
25 there was a comment made that we had already entered

1 into that agreement. We have not. So we will file it  
2 as required by that condition within 30 days after it is  
3 executed. But that has not happened yet.

4 CHMN. CHENAL: And that 30-day language is still  
5 in there, is that correct?

6 MS. SPINA: That's correct.

7 CHMN. CHENAL: We didn't strike that.

8 So the power purchase agreement has been  
9 executed, is that correct?

10 MS. SPINA: Yes, that's correct.

11 CHMN. CHENAL: Okay. But the interconnection  
12 has not been. All right.

13 So we have just gone through CEC-1, which is APS  
14 Exhibit 23. And Chairman's Exhibit 1 is the document  
15 that we end up on the right screen that will be, once we  
16 vote on it, if it is approved, will become the final.

17 Now we go to APS. And this will go pretty  
18 quickly because the conditions are all the same.

19 MEMBER NOLAND: Mr. Chairman.

20 CHMN. CHENAL: Yes.

21 MEMBER NOLAND: I think we need to move that we  
22 approve the certificate of environmental compatibility  
23 as revised CEC-1.

24 MEMBER HAMWAY: Second.

25 CHMN. CHENAL: Oh, okay. This is not the roll



1 call vote, though, this is just as to form.

2 MEMBER NOLAND: It is a roll call vote.

3 CHMN. CHENAL: Okay. If you would like to do  
4 that one before we go to CEC-2, that's fine with me.

5 MEMBER NOLAND: Get it out of the way.

6 CHMN. CHENAL: So we have a motion and a second  
7 on CEC-1 as revised, which is reflected in Chairman's  
8 Exhibit 1. Let's have a roll call vote. Let's start  
9 with you, Member Hamway.

10 MEMBER HAMWAY: Oh, I vote aye.

11 MEMBER NOLAND: I vote aye.

12 MEMBER GENTLES: I vote aye.

13 MEMBER RIGGINS: I vote aye.

14 MEMBER BRANUM: I vote aye.

15 MEMBER PALMER: Aye.

16 MEMBER HAENICHEN: Aye.

17 MEMBER GRINNELL: Aye.

18 CHMN. CHENAL: And I vote aye.

19 MEMBER DRAGO: Aye.

20 CHMN. CHENAL: And Member Drago votes aye. I  
21 vote aye.

22 MEMBER NOLAND: Chairman.

23 CHMN. CHENAL: So we have, back to page 1 -- is  
24 it page 1 or 2 -- yeah, page 1 of the Chairman's  
25 Exhibit 1, we have to put in the --

1 MEMBER NOLAND: 2, page 2.

2 CHMN. CHENAL: Page 2?

3 MEMBER NOLAND: Yes, line 25 on the original.

4 CHMN. CHENAL: Page 2, line 25, we have vote 10  
5 to 0. Aileen, would you go to --

6 MS. DE LOS ANGELES: Yes, Chairman.

7 CHMN. CHENAL: All right, very good. So now  
8 let's go to CEC-2, which is APS Exhibit 24 on the left  
9 screen, and then Chairman's Exhibit 2 will be on the  
10 right screen.

11 And there is really only -- the only difference  
12 is -- well, we will go through it one by one, but I  
13 think if we can maybe do all the conditions at one time,  
14 but let's go through the narrative, because there is  
15 some difference, different language there.

16 So page 1, lines 1 through 26.

17 MEMBER NOLAND: Mr. Chairman, I move the lines 1  
18 through 26, with the addition of August 25th on the  
19 dates of the hearing.

20 MEMBER GENTLES: Second.

21 CHMN. CHENAL: Okay. Now, page 2, and --

22 MEMBER DRAGO: They are not here.

23 CHMN. CHENAL: Len, I think you are -- you might  
24 want to be on mute.

25 Let's look at page 2. I would just like the

1 applicant to confirm, Ms. Spina, that on page 2, line --  
2 the entire page 2 that we just reviewed is the same in  
3 Exhibit 23 is the same as Exhibit 24, is that correct?

4 MS. SPINA: That is correct.

5 CHMN. CHENAL: Okay. So I would like a motion  
6 and a second to approve page 2, lines 1 through 27.

7 MEMBER HAENICHEN: I move those lines.

8 MEMBER HAMWAY: I second --

9 MEMBER GRINNELL: Second.

10 MEMBER HAMWAY: -- those lines.

11 CHMN. CHENAL: We have a motion and second. Any  
12 further discussion?

13 All in favor say aye.

14 (A chorus of ayes.)

15 MEMBER PALMER: Mr. Chairman, we didn't vote on  
16 the first motion, either.

17 CHMN. CHENAL: Sorry. Member Palmer, what did I  
18 miss? I am sorry.

19 MEMBER PALMER: We didn't vote on Member  
20 Noland's motion for lines 20 through 26 on page 1.

21 CHMN. CHENAL: Let's do it over again.

22 Member Noland made a motion to approve page 1,  
23 lines 20 through 26. May I have a second.

24 MEMBER RIGGINS: Second.

25 MEMBER GRINNELL: So moved.

1 CHMN. CHENAL: All in favor say aye.

2 (A chorus of ayes.)

3 CHMN. CHENAL: And we just confirmed and had a  
4 motion and second and voted in favor of page 2, is that  
5 correct?

6 MEMBER PALMER: Yes.

7 CHMN. CHENAL: Okay.

8 MEMBER HAENICHEN: Right.

9 CHMN. CHENAL: Now, page 3, lines 1 through 8,  
10 that language is consistent with the previous CEC we  
11 just reviewed.

12 May I have a motion and a second to approve  
13 page 3, lines 1 through 8.

14 MEMBER PALMER: Move approval of lines 1 through  
15 8.

16 MEMBER HAENICHEN: Second.

17 CHMN. CHENAL: Any further discussion? All in  
18 favor say aye.

19 (A chorus of ayes.)

20 CHMN. CHENAL: All right. Now, the only  
21 difference between CEC-1 and CEC-2 is the following  
22 language. And that is page 3, lines -- the end of line  
23 8 down through line 20. So let's get all that and make  
24 sure we review it carefully before we vote.

25 Okay. Is there any further discussion

1 concerning page 3, lines 8 through 20? If not, may I  
2 have a motion and a second.

3 MEMBER NOLAND: So moved.

4 MEMBER HAMWAY: Second.

5 CHMN. CHENAL: All in favor say aye.

6 (A chorus of ayes.)

7 CHMN. CHENAL: Now, this one I think we can deal  
8 with in one motion. So I would like a motion that the  
9 conditions, findings of fact, and conclusions of law  
10 that we reviewed and approved in CEC-1 will, those  
11 changes will be made to the document we are looking at,  
12 CEC-2, which is APS-24 and Chairman's Exhibit 2.

13 MEMBER GRINNELL: So moved.

14 MEMBER NOLAND: Second.

15 CHMN. CHENAL: We have a motion and a second.

16 So the intent here is simply to make the same changes to  
17 CEC-2 that we just reviewed and approved in CEC-1.

18 And --

19 MEMBER HAMWAY: Correct.

20 CHMN. CHENAL: -- everyone understands that?

21 MEMBER HAENICHEN: Yes.

22 CHMN. CHENAL: Okay. We had a motion and a  
23 second. Any further discussion? If not, all in favor  
24 say aye.

25 (A chorus of ayes.)

1 CHMN. CHENAL: Okay.

2 MS. SPINA: Mr. Chairman, I am sorry, if I may.

3 CHMN. CHENAL: Yes.

4 MS. SPINA: Just on that last condition that we  
5 talked about with respect to the interconnection  
6 agreement, in this CEC-2, which eventually will be  
7 transferred to AES, can the language remain the same for  
8 that condition about APS -- I guess I am trying to  
9 figure out whether APS will be the one filing the  
10 interconnection agreement or whether AES will. I am not  
11 sure exactly when the transfer and CEC will happen. So  
12 maybe there is a way to genericize the language so it  
13 just says that the interconnection agreement will be  
14 filed within 30 days.

15 MS. GRABEL: Eli and I were just discussing  
16 that. I actually think it is fine the way it is,  
17 because we are stepping into the shoes of APS in this  
18 case. And so we can both file it, or --

19 MS. SPINA: We can file jointly?

20 MS. GRABEL: Yeah.

21 MS. SPINA: Okay.

22 CHMN. CHENAL: All right. So we will keep it  
23 APS shall file it within 30 days, the language that we  
24 just approved in the CEC-1.

25 MS. SPINA: Yes. Thank you for the clarity.

1 CHMN. CHENAL: I think we just approved that.  
2 And there is nothing more to discuss.

3 Just so we are clear, and I don't think I made  
4 it clear in what I asked for, that we also approve the  
5 Exhibit A to APS-24 and Chairman's 2. May I have a  
6 motion and second to approve Exhibit A.

7 MEMBER HAMWAY: So moved.

8 MEMBER GRINNELL: So moved.

9 MEMBER HAMWAY: Second.

10 CHMN. CHENAL: We have a motion and second.

11 Let me just confirm with the applicant that the  
12 Exhibit A for both CECs is the same.

13 MS. SPINA: Yes, it is.

14 CHMN. CHENAL: Okay. All in favor say aye.

15 (A chorus of ayes.)

16 CHMN. CHENAL: Now let's do our up and down roll  
17 call vote for CEC No. 2.

18 MEMBER NOLAND: Mr. Chairman, I move that we  
19 adopt the certificate of environmental compatibility,  
20 CEC-2.

21 CHMN. CHENAL: As reflected --

22 MEMBER NOLAND: As revised.

23 CHMN. CHENAL: As revised, Chairman's Exhibit 2.

24 MEMBER HAENICHEN: Second.

25 CHMN. CHENAL: We have a motion and second. Any

1 further discussion?

2 Let's have a roll call vote, starting, again,  
3 with you, Member Hamway, please.

4 MEMBER HAMWAY: All right. Thank you,  
5 Mr. Chairman.

6 I appreciate learning about battery systems.  
7 And I do think that Thing Two is a big deal because it  
8 was in our backyard and it was our first responders. So  
9 I do feel appreciative of this conversation.

10 And I think Member Grinnell was correct when he  
11 said that this is part of the public process and we, you  
12 know, need to do our due diligence. And then Member  
13 Gentles asked me if I would feel safe living 260 feet  
14 from this BESS, and I said I would.

15 And with that, I vote aye.

16 CHMN. CHENAL: Member Noland.

17 MEMBER NOLAND: I vote aye.

18 CHMN. CHENAL: Member Gentles.

19 MEMBER GENTLES: Mr. Chairman, first let me  
20 compliment APS on their public outreach and  
21 communication work.

22 I continue to see that you are doing more than  
23 just the statutory requirement, and I think I can speak  
24 on behalf of the rest of the Committee that we  
25 appreciate that diligence. And I hope that other



1 applicants that come before us would take the same  
2 approach, because we are going to ask about it.

3 CHMN. CHENAL: And how do you vote?

4 MEMBER GENTLES: That I approve, I vote aye.

5 CHMN. CHENAL: Thank you.

6 Member Riggins.

7 MEMBER RIGGINS: I would also like to commend  
8 APS and the applicant on a good, thorough hearing,  
9 providing us that information, the explanation.

10 As I think others have said, this is, you know,  
11 battery storage is a technology that I am sure is going  
12 to be before this Committee again through other  
13 transmission siting processes. So it is good for this  
14 Committee to be educated on that. You know, it would be  
15 helpful, I am sure, with other hearings in the future.

16 So with that, I vote aye.

17 CHMN. CHENAL: Member Branum.

18 MEMBER BRANUM: Thank you, Chairman.

19 I would like to say thank you to all of the  
20 participants. I think someone had made the comment that  
21 this was potentially frustrating to go through the  
22 extensive testimony on the battery storage. But for me,  
23 speaking as someone who was a member of the Staff who  
24 was aware of the McMicken incident, there is a docket  
25 opened at the Commission. It was on the Commission's

1 radar at quite a few open meetings, if I am not  
2 mistaken.

3           The way I view this issue is I think it would  
4 come before the Commission in some forum or in some  
5 proceeding, whether it be a workshop, a rate case, you  
6 know, here in a Line Siting Committee hearing. I think  
7 it is good to take the time, because that incident is so  
8 fresh in the mind of the Commission and, I am sure,  
9 anyone who was closely following it to really let the  
10 public know through this forum that the lessons learned  
11 in McMicken were applied to this project by APS.

12           And I think that's important for transparency  
13 purposes as your company pursues a clean energy future,  
14 its public announcement not too long ago, that APS is  
15 going to 100 percent clean. And I think what we have  
16 all heard here today is that future heavily contemplates  
17 storage with renewables and other resources.

18           So in your messaging to your customers, to the  
19 public, as you pursue that resource fleet, that mix, I  
20 think this has been extremely helpful. And I am sure  
21 the Commission will contemplate what we discussed here  
22 today when the CEC comes before them for a vote, and  
23 then ultimately in the various proceedings that come  
24 before the Commission as they relate to these kinds of  
25 projects. So thank you.

1 I know Staff has been in the difficult position  
2 of trying to anticipate what the Commissioners may ask  
3 or what they may be concerned about. And it is always a  
4 tough challenge. So I think they did an excellent job  
5 asking questions. And I think they have developed the  
6 record, and I found it extremely informative.

7 So with that, thank you all. Thank you for your  
8 patience, your testimony. And I vote aye.

9 CHMN. CHENAL: Thank you.

10 Member Palmer.

11 MEMBER PALMER: Thank you, Mr. Chairman. I want  
12 to thank the applicant, APS, as always does a great job.  
13 I want to thank AES for their efforts to help us  
14 understand the battery storage challenges that are faced  
15 and are no doubt going to be coming before us. And I  
16 want to also thank the intervenors, the Staff at the  
17 Commission for bringing forward some important questions  
18 for us to consider.

19 I think what appeared in the beginning to be a  
20 very simple, very short, noncontroversial gen-tie line  
21 led itself to an in-depth discussion that perhaps is  
22 going to set a precedent or template going forward,  
23 because we no doubt are going to see these repeated  
24 many, many times in the future. And I thought it was a  
25 healthy discussion and a good discussion. I thought

1 Staff brought up excellent questions to the table. But  
2 I also thought that there were excellent answers  
3 provided to help us with the comfort level there.

4 As I look at some of the things that we learned,  
5 that a two megawatt -- excuse me, lost my train there --  
6 but that a small plant that created this cascading  
7 effect and created flammable gases that caused injury,  
8 and while this new project is going to be so much  
9 larger, it is broken down into chunks that are less,  
10 less than one, three-quarters, and I think they are  
11 insulated from each other. And I think answers provided  
12 us with a comfort level that we don't have to see these  
13 problems occur again.

14 Even with the one that occurred, what I  
15 understand from the testimony is that a substation 15  
16 feet away was not impacted. The grid was not impacted.  
17 The supply of power was not impacted. And I feel even  
18 more comfortable with this one, the way it is designed  
19 and engineered and the lessons learned from the first  
20 problem.

21 And so I have appreciated the questions and I  
22 have appreciated the answers. And it has given me a  
23 great comfort level going forward that I think will help  
24 us in the future.

25 And with that, I vote aye.

1 CHMN. CHENAL: Thank you.

2 Member Haenichen.

3 MEMBER HAENICHEN: I would like to explain my  
4 vote, Mr. Chairman.

5 The switch from using fossil fuels to the  
6 renewable energy sources like solar and wind has got to  
7 happen. It is essential to our atmosphere. It is  
8 essential to our health as citizens breathing it. And  
9 it is going to happen. And storage of electricity is  
10 key to making that transformation viable.

11 So with that explanation, I vote yes.

12 CHMN. CHENAL: Thank you.

13 Member Grinnell.

14 MEMBER GRINNELL: Thank you, Mr. Chairman.

15 Staff, Mr. Derstine, appreciate the feedback and  
16 the education on the law. My experience has taught me  
17 it is not what I know that concerns me; it is what I  
18 don't know and then what I come up after -- learning  
19 after the facts.

20 There has been a lot of discussions. It has  
21 been a good dialogue and it has been another phase of  
22 education for me serving on this Committee. And I  
23 appreciate the patience of all.

24 And with that, Mr. Chairman, I vote aye.

25 CHMN. CHENAL: Thank you.

1 Member Drago.

2 MEMBER DRAGO: Yes. Thank you, Mr. Chairman.

3 And thank you to everyone. I want to echo everyone's  
4 comments. I agree with them. And thanks for a good set  
5 of days of meetings.

6 So I vote aye. Thank you.

7 CHMN. CHENAL: Thank you.

8 I vote aye as well. I think the presentation  
9 was excellent. I really appreciate the panels.  
10 Ms. Spina, excellent job; Mr. Derstine, excellent job as  
11 usual. I think you were a little frustrated yesterday  
12 just for moment. Okay, he says he wasn't.

13 And Ms. Grabel, thank you, as usual, for your  
14 excellent presentation.

15 Two things. One, I know this was, you know, as  
16 I kidded someone the other day, I said, you know, if I  
17 ask the applicant's attorneys whether the battery  
18 storage was, and taking testimony on it, was within the  
19 jurisdiction of the Committee, I could hear them arguing  
20 no, it really isn't. But then I said but if the  
21 Committee were sued over an issue and they were hired as  
22 the Committee's lawyer, I can see them going into court  
23 and making just the opposite argument in good faith and  
24 with no problem at all. That's just the way the  
25 profession is.

1 I think, frankly, when Staff comes in and  
2 intervenes -- which is a very, very rare occasion --  
3 they are doing it for a reason. And my suspicion, I  
4 know this was hard medicine perhaps to get into all this  
5 stuff, but my suspicion is, if we didn't do it and  
6 create a good record, which we did, that there might  
7 have been some problems for the applicant at the  
8 Commission stage, that this is something that they  
9 wanted to hear, the Commission wanted to hear. And I  
10 think we just preempted a problem by taking care of it  
11 here.

12 So I think, in the long run, I think it is good  
13 for this project that we did what we did. And I know  
14 that, going forward, I think that same viewpoint should  
15 be the one that's adopted. If I were the applicant, I  
16 would err on the side of caution, as painful as it is to  
17 have to get into some of this, but create that record so  
18 the questions are answered before this gets to the  
19 Commission.

20 Second thing, we have got a lot of hearings  
21 coming up. We have got one next week, and then we have  
22 got a super big one a few weeks after that. So in terms  
23 of this CEC, if there is any way to get it to me by  
24 Friday, that would be very helpful, because Monday I am  
25 gone for a week, well, I don't know how long it is going

1 to be, but in lovely Parker.

2 And in terms of getting this filed and, you  
3 know, with the Corporation Commission, if there is an  
4 urgency to it, I suggest you get it to me by Friday,  
5 because I am driving to beautiful Parker on Monday and I  
6 don't know how long I am going to be up there before I  
7 get back.

8 So I am just saying, if you want it done this  
9 week, try to get it to me by Friday. If not, it will  
10 have to be Labor Day week. So whatever your preference  
11 is, I am just throwing that out there.

12 MS. SPINA: We appreciate the feedback, and we  
13 will certainly endeavor to do that.

14 CHMN. CHENAL: Thank you.

15 Okay. Anything else?

16 MS. SPINA: Just I would like to throw my thanks  
17 into the ring. APS certainly appreciates all of the  
18 time and thoughtfulness that has gone into this, both  
19 from the witness panel, the APS witnesses, of course; we  
20 always appreciate you, Ms. Grabel, we very much  
21 appreciate the AES witnesses as well and your  
22 participation; and certainly the participation of Staff.

23 As I think many of you mentioned, Staff raised  
24 excellent questions and helped make sure that we have a  
25 fulsome record and, I think as Mr. Chairman, you pointed



1 out, in everyone's best interest. So thank you for all  
2 of that.

3 And thank you for bearing with us as the  
4 temperature spiked today and the water was unavailable.  
5 But I am glad we were able to wrap it up promptly and,  
6 as you mentioned, with a good result and a fulsome  
7 record. So thank you very much.

8 CHMN. CHENAL: All right. If there is nothing  
9 else, going once, going twice. Okay. This hearing is  
10 over. Thank you.

11 (The hearing concluded at 2:43 p.m.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 STATE OF ARIZONA )  
 2 COUNTY OF MARICOPA )

3 BE IT KNOWN that the foregoing proceedings were  
 4 taken before me; that the foregoing pages are a full,  
 5 true, and accurate record of the proceedings all done to  
 6 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.

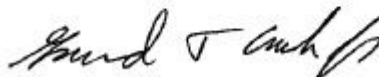
7 I CERTIFY that I am in no way related to any of  
 8 the parties hereto nor am I in any way interested in the  
 outcome hereof.

9 I CERTIFY that I have complied with the  
 10 ethical obligations set forth in ACJA 7-206(F)(3) and  
 ACJA 7-206 (J)(1)(g)(1) and (2). Dated at Phoenix,  
 Arizona, this 28th day of August, 2021.

11 

12 \_\_\_\_\_  
 13 COLETTE E. ROSS  
 14 Certified Reporter  
 Certificate No. 50658

15 I CERTIFY that Coash & Coash, Inc., has complied  
 16 with the ethical obligations set forth in ACJA 7-206  
 17 (J)(1)(g)(1) through (6).

18  
 19  
 20  
 21  
 22 

23 \_\_\_\_\_  
 24 COASH & COASH, INC.  
 25 Registered Reporting Firm  
 Arizona RRF No. R1036