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BEFORE THE ARIZONA POWER PLANT
AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE) DOCKET NO.
APPLICATION OF DCR) L-21088A-19-0309-00185
TRANSMISSION, L.L.C. OR ITS)
ASSIGNEES, IN CONFORMANCE WITH))
THE REQUIREMENTS OF A.R.S.) CASE NO. 185
§ 40-360 et. seq., FOR A)
CERTIFICATE OF ENVIRONMENTAL)
COMPATIBILITY AUTHORIZING THE)
500 KV TRANSMISSION LINE,)
WHICH INCLUDES THE)
CONSTRUCTION OF A NEW 125 MILE))
500 KV TRANSMISSION LINE)
BETWEEN ARIZONA PUBLIC SERVICE))
COMPANY'S DELANEY SUBSTATION)
UNTIL SOUTHERN CALIFORNIA)
EDISON'S COLORADO RIVER)
SUBSTATION, TO BE REFERRED TO)
AS THE TEN WEST LINK PROJECT.)
_____)

At: Quartzsite, Arizona
Date: January 28, 2020
Filed: January 31, 2020

REPORTER'S TRANSCRIPT OF PROCEEDINGS

VOLUME V
(Pages 682 through 843)

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1 BE IT REMEMBERED that the above-entitled and
2 numbered matter came on regularly to be heard before
3 the Arizona Power Plant and Transmission Line Siting
4 Committee at the Riggles RV Event Center, 240 North
5 Riggles Avenue, Quartzsite, Arizona, commencing at
6 9:16 a.m. on the 28th of January, 2020.

7

8 BEFORE: THOMAS K. CHENAL, Chairman

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

13

APPEARANCES:

14

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21 Ms. Maureen Scott, Deputy Chief of Litigation
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24

25

1 CHMN. CHENAL: Good morning, everyone. This
2 is the time set to resume the application by -- for the
3 Ten West Link project. I see we have -- our Committee
4 is in place, ready to go, and everyone is here, so
5 let's begin.

6 Is there anything we should discuss
7 procedurally before we begin with the testimony?

8 MS. GRABEL: Chairman, yes, we have two
9 documents that we want to hand out to the Committee
10 today. The first, as I referenced yesterday, the CAISO
11 did docket a letter addressing kind of their
12 background, what it means for them to have operational
13 control. So we're handing that out just for your
14 reference and convenience.

15 I had intended to mark it as an Applicant's
16 exhibit, but of course, Chairman, you're welcome to
17 mark it as a Chairman's exhibit if you'd like in the
18 record, and you can use it for whatever questions you
19 have for the CAISO representative on February 6th.

20 CHMN. CHENAL: All right, very good. Let's
21 mark it as an Applicant's exhibit. I'm not sure which
22 number we're up to.

23 MS. GRABEL: We're going to mark it as
24 DCR-30.

25 CHMN. CHENAL: Thank you.

1 MS. GRABEL: And we will prepare a cover
2 letter for that when we get back to Phoenix.

3 CHMN. CHENAL: All right, that's good. Thank
4 you.

5 MS. GRABEL: We'll also hand out to you right
6 now, if you don't mind, Eli, DCR Exhibit 27, to which
7 Ms. Chang will testify. That response to somebody, I
8 don't recall, it was either Member Woodall or perhaps
9 you, Chairman, request about existing generation in
10 Arizona. And she's on the line and, at the appropriate
11 time, she can testify to this exhibit.

12 We will also be discussing Exhibit DCR-29,
13 which is a PowerPoint presentation Ms. Chang prepared
14 for her testimony this morning. Unfortunately, we just
15 kind of finalized the details this morning, so we'll
16 have it on the screen, and we can print out a copy for
17 the Committee next week, if that's all right with you,
18 or I can e-mail it to you if you'd prefer.

19 CHMN. CHENAL: That's fine. Why don't we do
20 both. Why don't we have printed copies, but then if
21 you can e-mail it, then I'll have Marie forward it to
22 the Committee.

23 MS. GRABEL: Absolutely.

24 CHMN. CHENAL: Does the Staff of the
25 Corporation Commission have any procedural matters we

1 should discuss right now, Ms. Scott?

2 MS. SCOTT: No, we don't. Thank you.

3 CHMN. CHENAL: Okay, thank you.

4 MS. GRABEL: So through the wonders of modern
5 technology, we have Ms. Chang on the line.

6 MS. CHANG: Hi, everyone. Good morning.

7 CHMN. CHENAL: Good morning, Ms. Chang. This
8 is Tom Chenal. I want to thank you for appearing, and
9 you're under oath.

10 So, Ms. Grabel, if you want to proceed with
11 Ms. Chang.

12 MS. GRABEL: Absolutely.

13

14 JUDY CHANG (TELEPHONIC),
15 called as a witness on behalf of the Applicant, having
16 been previously sworn by the Chairman to speak the
17 truth and nothing but the truth, were examined and
18 testified as follows:

19

20 DIRECT EXAMINATION

21 BY MS. GRABEL:

22 Q. Ms. Chang, this morning I resent to you what
23 has been marked as Exhibit DCR-27. Do you have that in
24 front of you?

25 A. Yes. That is the one with the existing

1 generations on it?

2 Q. Yes, correct.

3 A. Okay, yes, I have it in front of me.

4 Q. And have you seen that document before?

5 A. Yes.

6 Q. Was that document prepared by you or under
7 your direction and control?

8 A. Yes.

9 Q. Is that document -- are the contents of that
10 document true and correct, to the best of your
11 knowledge?

12 A. Yes.

13 Q. Do you want to quickly speak to that document
14 and how it responds to the question raised by the
15 Committee when you were on the stand last week?

16 A. Yes, please. This document contains the
17 existing generation, which we call current resources,
18 as of January 2020, and the generation in Arizona under
19 our simulated Scenarios A, B, and C of 2028.

20 You have seen the numbers for 2028
21 Scenarios A, B, and C last week when I presented it in
22 a PowerPoint presentation. And there was a question, I
23 believe from you, Chairman, about how much existing
24 resources are relative to the simulated 2028 numbers.

25 So we pulled these numbers together, and you

1 can see about 10,000 megawatts of natural gas
2 generation and 1,180 of renewable generation in Arizona
3 and 21 megawatts of storage capacity in Arizona.
4 Hopefully this is responsive to your question.

5 CHMN. CHENAL: Yes, thank you, Ms. Chang.
6 Let's make sure I understand what we're looking at.

7 So current resources, January 2020, natural
8 gas generation capacity is currently 10,720 megawatts
9 capacity, Arizona renewable generation, there's
10 presently 1,180, and Arizona energy storage capacity 21
11 megawatts.

12 MS. CHANG: Correct.

13 CHMN. CHENAL: Can you explain what the
14 Arizona energy storage capacity is or how is that --
15 how is that energy stored?

16 MS. CHANG: Oh, okay. These are typically
17 battery storage, and I have to go back to our
18 documentation to make sure if these are indeed the
19 battery storage that have been contracted or developed
20 by the utilities.

21 But the way it works is they really just act
22 like battery storage connected, and the way we simulate
23 these are connected at the transmission system. They
24 could be connected at the lower voltage distribution
25 system, but typically, if it's connected on the

1 transmission system, these are batteries that absorb
2 electric energy from the system and can discharge as
3 well into the system.

4 So usually what happens, if they are price
5 responsive, and not all of them would be price
6 responsive, because it depends on how they use -- how
7 they're being used and why they were deployed in the
8 first place, but let's assume they are responsive to
9 market prices. They typically, in a marketplace where
10 the batteries can see the prices or are aware of the
11 prices, then they would absorb the power when prices
12 are low, because they're essentially acting like load,
13 they absorb the electricity generation produced by some
14 other generators on the system. And then when prices
15 are high, they would essentially sell or discharge the
16 energy in the battery; just like a generator would
17 produce electricity, the batteries will then discharge
18 the electricity onto the system.

19 There's usually a round-trip loss of energy.
20 It's -- we typically -- we typically simulate it at
21 around 20 percent. Different technologies and
22 different batteries for different deployment have
23 slightly different efficiency loss, but we typically
24 simulate it with 20 percent efficiency loss between
25 absorbing the energy and discharging the energy.

1 CHMN. CHENAL: Okay, thank you. Now, the
2 numbers that you reflect under the three scenarios, the
3 increases both for natural gas and renewable
4 generation, those are increases because this line will
5 be put in place; is that correct?

6 MS. CHANG: No. Actually, that's not -- it's
7 not causal. These are -- the simulations, because
8 they're for 2028, they're simply increases because the
9 utilities have increased their need for generation.

10 So Scenario A, as I described last week,
11 is -- has a starting point of a database that's
12 essentially assembled from input from all the
13 utilities, and then we also updated it with the
14 assumptions from the different IRPs and our own
15 assessment of what is more likely to be developed by
16 2028. So you see a reduction from Scenario A to
17 Scenario B in the gas generation.

18 But these are not necessarily causal or
19 caused by the Ten West Link, these are just generation
20 that's been planned or likely to be planned to be built
21 in Arizona, regardless of the -- the line, with the
22 only exception is when we -- which is not shown on this
23 figure, but when we add the Ten West Link -- remember,
24 we simulate each scenario. Here you see Scenario A, B,
25 and C. For each scenario we simulated with the line,

1 with the Ten West line, and without the Ten West line.

2 When we simulate a scenario with the Ten West
3 line in place, we have shifted solar PV resources onto
4 Arizona, so that with the line we are actually assuming
5 that 780 megawatts of solar PV generation is located in
6 Arizona. And so we are linking that solar generation
7 with the line, if that helps to answer your question.

8 CHMN. CHENAL: Thank you. It does, I just
9 want to make sure I understand. So with the exception
10 of -- well, these increases in generation capacity,
11 you're saying, will result whether or not this line is
12 constructed; is that correct?

13 MS. CHANG: Actually, maybe more accurately
14 to say we anticipate this much generation to be built
15 with or without the line.

16 CHMN. CHENAL: Okay. One more question, and
17 then I'll go to Member Haenichen. I'm sure there will
18 be some questions here.

19 I see under Scenarios B and C that there is a
20 rather substantial increase in Arizona energy storage
21 capacity. Could you talk to that, please. From 21 to
22 990 megawatts.

23 MS. CHANG: Yes. We looked at the IRPs and
24 the response from the ACC to the IRPs, and we felt that
25 some of the gas generation that is depicted under

1 Scenario A are less likely to be developed. In their
2 place, we think that additional renewable generation
3 with battery storage are more likely to be developed.

4 Of course, we don't -- we're not a crystal
5 ball, we don't know exactly what will be developed, but
6 that's why we created the three different scenarios.
7 In this case, just -- the generation only changes
8 between A and B and C have identical amount of
9 generation. We wanted to set a different scenario for
10 the generation mix of the future. So we did it based
11 on the IRPs, our reading of the ACC's response, and our
12 own assessment of what would be likely in 2028.

13 CHMN. CHENAL: Thank you. Then Member
14 Haenichen has a question.

15 MEMBER HAENICHEN: Thank you.

16 On the third column there, the energy storage
17 capacity.

18 MS. CHANG: Yes.

19 MEMBER HAENICHEN: I don't believe that the
20 numbers there are enough to characterize what the
21 storage is. Megawatts is a measure of power, not
22 energy.

23 MS. CHANG: You're right.

24 MEMBER HAENICHEN: So unless you -- well, let
25 me finish this, and then you can comment. When I see

1 the number 21, here is what it tells me. That the
2 storage that will be present is capable of releasing
3 its stored energy at the rate of 21 megawatts. Do you
4 agree with that?

5 MS. CHANG: Yes. Subject to check, there's a
6 20 percent efficiency loss, so this could be the
7 absorbing capability or the discharge capability, but
8 yes.

9 MEMBER HAENICHEN: Okay. But it's a rate,
10 not an amount of megawatt hours. So you also need
11 another column that shows how many hours it can do
12 this, do you not?

13 MS. CHANG: Correct, correct.

14 MEMBER HAENICHEN: And I think in your
15 testimony you use the number of four hours. My
16 question to you now is: Is that the same for the 21;
17 and also, is it the same for the 990s?

18 MS. CHANG: Yes, we did not simulate a
19 scenario with 2020 numbers, so the row with the current
20 resources is to answer the question about, before we
21 start looking into the future, what's existing. So we
22 simulated Scenarios B and C with the additional storage
23 capability.

24 And you're right, we assumed a four-hour
25 cycle, which means that the storage capability measured

1 in megawatt hours is four times the 990 megawatts.

2 MEMBER HAENICHEN: Now, what is it that's
3 subject to the 20 percent loss? Is it the rate, namely
4 the 990, or is it the hours or both?

5 MS. CHANG: Yes, it's the megawatt hours. So
6 it is a loss in the round trip through the batteries.

7 MEMBER HAENICHEN: Okay, then one final
8 question --

9 MS. CHANG: So for every megawatt hour
10 absorbed, only .8 megawatt hours would be discharged.

11 MEMBER HAENICHEN: Okay. One final question,
12 then, on this sheet. It must be known on the first
13 number, which is the 21, we must know how many hours it
14 can do that, because it exists. Is that four hours?

15 MS. CHANG: I don't have that handy, but
16 certainly, if that information is public, we can obtain
17 that information. But generally speaking, in today's
18 deployment of battery storage, most of them have been
19 four-hour battery storage.

20 MEMBER HAENICHEN: Okay. Well, as will
21 become evident in my questions further on in this
22 hearing, probably not today, it's extremely important
23 that we know that number. So we'll get into that
24 later. Thank you.

25 MS. CHANG: Okay, thank you.

1 CHMN. CHENAL: Any further questions from the
2 Committee of Ms. Chang, at least on -- with respect to
3 this exhibit?

4 Staff, any questions, attorneys?

5 MS. SCOTT: No, thank you.

6 CHMN. CHENAL: I shouldn't say, hey, Staff,
7 hey, attorneys. I should say, do the attorneys
8 representing the Staff of the Arizona Corporation
9 Commission have any questions of Ms. Chang with respect
10 to this exhibit?

11 MS. SCOTT: No, we don't. Thank you.

12 CHMN. CHENAL: Ms. Grabel.

13 MS. GRABEL: Thank you.

14 BY MS. GRABEL:

15 Q. Ms. Chang, will you now please turn to what
16 has been marked as DCR Exhibit 29, and that is a
17 PowerPoint presentation that you prepared regarding the
18 assumptions underlying your production cost analysis.

19 A. Yes, I have it in front of me.

20 Q. Okay. And just for the record, it's also
21 reflected on the screen before the Committee.

22 Have you seen this document before?

23 A. Yes.

24 Q. Was this document prepared by you or under
25 your direction and control?

1 A. Yes.

2 Q. Is that document -- or, the contents of this
3 document true and correct, to the best of your
4 knowledge?

5 A. Yes.

6 Q. Wonderful. If you would please now take us
7 through the presentation.

8 A. Sure. If you can flip to Slide 3, please.

9 Q. Is that the slide that's headed "Transmission
10 Network"?

11 A. Correct.

12 Q. Thank you. That's on the screen.

13 A. So this -- on this slide, on the right-hand
14 side, you can see the transmission network in Arizona
15 and bordering California. And on the left-hand side
16 is -- if you recall last week, we talked about path
17 rating. Essentially, what this means is WECC, as an
18 organization, rates a simultaneous transfer capability
19 of many, many lines that make up a portion of the
20 network.

21 And this particularly -- this particular
22 path, Path 49, which is also called east of Colorado
23 River path, has approximately 10,100 megawatts of
24 transfer capability. And that's rated by conducting
25 all different types of power flow analyses over the

1 transmission network to evaluate how much power can be
2 simultaneously transferred across many lines in this
3 path, on this path.

4 CHMN. CHENAL: Member Haenichen has a
5 question.

6 MEMBER HAENICHEN: It would be helpful to
7 me -- oh, I'm sorry. It would be helpful to me, in
8 formulating questions for a future upcoming witness, to
9 see this exact slide only for California. Can that be
10 prepared and offered to the Committee?

11 MS. CHANG: Do you mean Path 49 from
12 California's perspective, or do you mean all of the
13 other paths?

14 MEMBER HAENICHEN: All paths within the state
15 boundaries of California, just like the one you showed
16 for --

17 MS. CHANG: Yes, our other path, and we can
18 prepare -- subject to check, we can prepare a slide
19 that shows the paths in and out of and on the borders
20 of California.

21 MEMBER HAENICHEN: Well, thank you. That
22 would be very helpful for me.

23 MS. CHANG: Okay. And by the way, just --
24 and perhaps you already know this, but we did simulate
25 the entire WECC, including all the paths you just

1 requested, all the paths across -- really all across
2 the west. But in this context, if you're interested in
3 California, we have simulated the constraints based on
4 the path rating across the different California
5 locations.

6 CHMN. CHENAL: Ms. Chang, this is Tom Chenal
7 again, looking at the Slide 3. So I want to make sure
8 I understand what I'm looking at. What this depicts is
9 the -- is it the capacity of the, I guess the Path 49
10 system, which is made up of various lines, you know,
11 transmission lines, but it's the path from Arizona, I
12 guess, to California, but it also would allow for
13 energy to transfer from California to Arizona on this
14 path; is that correct?

15 MS. CHANG: Actually, the path includes
16 Arizona to Nevada as well. So the cut plain, the
17 dashed vertical line, shows you the physical lines that
18 encompass the Path 49, and therefore it includes
19 transfers through Nevada.

20 So one thing -- the reason we're a bit
21 difficult -- it's challenging to explain some of these
22 things, and I think my colleague deserves a credit for
23 this, this is not a one -- it's not point to point. So
24 the transfers of the power system across the west is
25 not just about from A to B, Point A to Point B how much

1 power can be transferred. The path and the entire
2 network of the alternate current system is more like a
3 web of many different transmission lines.

4 So the power flows, as you know, through the
5 path of least resistance. And the paths of least
6 resistance don't just encompass the ratings on the line
7 or the impedance on the line, but also which generators
8 are on and which load is absorbing the power.

9 But anyway, going back to this diagram, many
10 different lines, physical lines, make up this Path 49,
11 including lines through Nevada.

12 CHMN. CHENAL: And the point my question
13 really is getting to, the path allows flows east and
14 west; is that correct?

15 MS. CHANG: Yes.

16 CHMN. CHENAL: Okay. Now --

17 MS. CHANG: And north and south, yes.

18 CHMN. CHENAL: Many directions based on where
19 the web extends to?

20 MS. CHANG: Yes.

21 CHMN. CHENAL: Now, the left side of the
22 screen, WECC path rating catalog, that's -- I'm not
23 sure I understand that. Is that a discussion of the
24 Path 49 and how it, in simple terms, is split up among
25 various utilities?

1 MS. CHANG: Yes, exactly. Yeah, so that's
2 not very clear. The path rating catalog is the source
3 of this information. So we actually just copied and
4 pasted the data you see in that box. So the path
5 rating is produced by WECC as they conduct the path
6 ratings of different paths, and this shows that there's
7 a northern system and a southern system, and it's
8 essentially an allocation of the transfer capability
9 across Path 49 to different entities.

10 It's almost like if you imagine these lines
11 are physical lines, but then on top of it, we really
12 have what we call a contract layer. And these entities
13 have the right to use this path up to those numbers you
14 see on the table or in the box.

15 CHMN. CHENAL: Thank you. That is what I was
16 trying to get a handle on. So this is a contractual
17 allocation of the transmission lines of, in this case,
18 Path 49 --

19 MS. CHANG: Yes.

20 CHMN. CHENAL: -- as to who has rights to use
21 the system. Okay.

22 Member Haenichen had another question.

23 MEMBER HAENICHEN: Thank you, Mr. Chairman.

24 Help me, please, to jog my memory. Do we
25 already -- have we already seen this slide labeled

1 Brattle 3? Is it in the application?

2 MS. CHANG: This specific slide has not been
3 produced until now.

4 MEMBER HAENICHEN: Okay. Here is what I
5 would like --

6 MS. CHANG: However, the transmission network
7 diagram I believe is in the application.

8 MEMBER HAENICHEN: Okay. Here is what I
9 would ask you to see if you can accomplish in concert
10 with Ms. Grabel. I would like to see you provide, in
11 some form to Ms. Grabel, the Brattle 3. And secondly,
12 the one I asked you to do on the state of California.
13 And then the third one would be the entire WECC one.
14 And in such a timely manner that we can see them before
15 this hearing moves back to Phoenix. In other words,
16 they would be docketed and they could be mailed to us.
17 If that's possible, it would be very helpful to me.

18 MS. GRABEL: We can do that, Member
19 Haenichen.

20 MEMBER HAENICHEN: Thank you.

21 CHMN. CHENAL: Couple more questions,
22 Ms. Chang. And I know this is slow, but this is a lot
23 of information. Actually, two more questions.

24 So at the bottom of the screen it says the
25 EOR Southern system can -- what does EOR stand for,

1 please?

2 MS. CHANG: That's the east of river, east of
3 Colorado River.

4 CHMN. CHENAL: Thank you. And then the next
5 question is, it's the CAISO portion of the Palo Verde
6 intertie with no Ten West Link, and then with Ten West
7 Link, and it has some numbers there. Can you explain
8 that, please.

9 MS. CHANG: Yes. Very good question. When
10 we -- when I just spoke about a layer, we actually
11 simulate a layer on top of the physical capability of
12 the lines. And to simulate what's contained in the
13 box, where California ISO has approximately 3,600
14 megawatts of this path to be used by various entities
15 that are participants of the California ISO, we
16 increase that amount, we increase the Palo Verde
17 intertie, which means on the contractual layer we allow
18 the system to flow more with the Ten West Link compared
19 to without the Ten West Link.

20 And that's what that's -- those words in the
21 middle of the slide indicate. When there is no Ten
22 West Link, it's about 3,628 megawatts, 3,628 megawatts.
23 With the Ten West Link, we increase that transfer
24 capability at the Palo Verde intertie for California
25 portion -- California ISO's portion of that intertie by

1 650 megawatts.

2 CHMN. CHENAL: Thank you. And Mr. -- I
3 always pronounce his name incorrectly -- Amirali, and I
4 know that's incorrect, but -- so he had testified that
5 you cannot -- one cannot do a -- you can't just add the
6 megawattage capacity of this Ten West Link line and say
7 it's the path, I guess -- or, the total amount of power
8 that can be -- energy that can be delivered is
9 increased by the rating of the Ten West Link line, that
10 there's -- it's more complicated than that.

11 Is that what you're talking about here,
12 Ms. Chang, that there's other factors, contractual and
13 otherwise, that would increase the energy capacity, if
14 that's the correct word, going to California by 650
15 megawatts, even though the line is rated at -- I mean,
16 has a much larger capacity?

17 MS. CHANG: That's correct. So the physical
18 cables on the transmission line may be able to carry a
19 lot more, in this case, thousands of megawatts of
20 power, at the same time. But because the system works
21 like a system, not just single lines, the system has to
22 consider how much power is flowing on the rest of the
23 web, so to speak.

24 So the actual allowed flow, we should say, is
25 much less than the thermal limits on the line. Thermal

1 limit meaning you're going to start burning the cable
2 if you flow more power on the cable. But the actual
3 allowed flow on the line is much more dependent on what
4 else is happening on the system.

5 And because the system is a web, it's a very
6 complex system, that's why you have entities like WECC
7 rating the path. It's basically saying, yeah, okay,
8 even though each line might be able to carry more
9 power, at the same time they can't all carry the
10 maximum amount of their power. We have to consider all
11 the flows on the system. And they basically set a
12 limit, a simultaneous flow limit, on the path.

13 And then on top of that -- I know this is
14 complicated. On top of that, there's also a
15 contractual relationship between parties. Even though
16 this path has 10,100 megawatts allowed flow on the
17 path, certain entities can only use so much at the
18 contractual level. So in this case we are simulating
19 California ISO, which encompasses, of course, all the
20 investor-owned utilities in California, their use of
21 this portion of the Path 49.

22 CHMN. CHENAL: I really appreciate that
23 explanation, because I was groping for the words that
24 you just said that would explain it. I had an inkling
25 of the idea, but I see it much better now. I liken it

1 to almost the air traffic control system in airports
2 where you have runways that can allow many planes to
3 take off and land, but the air traffic control system
4 may limit the number of aircraft taking off to get into
5 the system at any one time. And you also have
6 contractual limitations on carriers at airports on how
7 many gates they have, et cetera.

8 So it sounds like basically there's capacity
9 at various points with these transmission lines, but
10 the system may not allow the full capacity at any one
11 time. So the net effect of that is, based on your
12 analysis, is that this line would basically increase
13 power to California in the neighborhood of 650
14 megawatts?

15 MS. CHANG: Along this path, yes. You know,
16 I love that analogy and I think I will use that traffic
17 controller next time. That's a really good analogy,
18 yes.

19 CHMN. CHENAL: Member Haenichen.

20 MEMBER HAENICHEN: Thank you. I agree, that
21 was a very, very good analogy, very close.

22 This is not a question; it's a comment
23 addressed to Ms. Grabel. I might remind you that early
24 on in these proceedings I asked you to provide us with
25 a chart or other kind of representation of -- on the

1 existing transmission paths across the river, but
2 really more particularly the original Devers line. Is
3 it Devers or Devers?

4 MS. GRABEL: I say Devers; I don't know what
5 others say.

6 MEMBER HAENICHEN: Yeah, I've heard both. On
7 the original Devers line for one recent entire year in
8 aggregate, how much energy, megawatt hours, flowed on
9 that line from east to west and how much from west to
10 east, and any additional information that might clarify
11 that. You can see what I'm looking for. I haven't
12 received that yet.

13 MS. GRABEL: Member Haenichen, we have been
14 struggling to provide you with the information that you
15 want, since you originally asked for it, and I'm
16 actually going to ask Ms. Chang to address that
17 question, because we specifically asked Brattle to, and
18 it's a lot harder than it seems as though it would be.

19 So Ms. Chang, will you address Member
20 Haenichen's question?

21 MS. CHANG: Yes. I think, simply put,
22 because this web of transmission lines and paths act as
23 a system, we have not found a source that tracks the
24 flow on individual lines, and we're not even aware of a
25 database or a system that tracks the actual flows on

1 particular lines.

2 Now, I know it sounds like, well, somebody
3 must keep track. And that's kind of how we thought of
4 it as well. But we are really -- we have struggled
5 with that and really have not been able to track down
6 any historical data that's publicly available on
7 specific lines.

8 And again, I think I want to emphasize,
9 because the system works as a network, in some ways
10 that almost is less important or not important, as long
11 as they never flow more than the line can handle, which
12 they will never. Because of the traffic controller
13 analogy, they were never allowed to flow more than
14 they're allowed to handle.

15 So it's very -- anyways, the short answer is,
16 we have not found a source that can give you the data
17 on the actual flow -- historical actual flows on
18 particular lines.

19 MEMBER HAENICHEN: Well, that's really too
20 bad. Because that means that I, as a Committee Member,
21 am basically flying blind when I can make judgments on
22 this project. It seems to me that that data should be
23 relatively easy to get, because somebody had to know it
24 to bill people for the use of the line. So how can it
25 not be available?

1 MS. GRABEL: Member Haenichen, I don't know
2 as to why it's not available.

3 We have not been able to discover it to this
4 point. I also wonder why you believe you're flying
5 blind with respect to the application lacking that
6 specific data. If you could help us understand that,
7 that would be helpful.

8 MEMBER HAENICHEN: I'm sorry. Would you
9 repeat that? I didn't understand it.

10 MS. GRABEL: Certainly. You suggested that
11 because we were not able to find the information,
12 you're flying blind with respect to the application in
13 this matter. And obviously, I don't want that to
14 happen. So is there an alternative way we can address
15 your concerns, having been unable to find the specific
16 data that you requested to this point?

17 MEMBER HAENICHEN: Well, the reason is that
18 it makes me guess. Did most of the energy flow over a
19 year period to California, or did half and half to
20 California to Arizona? That's the genesis of that
21 question. And it's very important for the Committee to
22 know that, I believe. In other words assuming, well,
23 then this new line would be operated in the same
24 manner.

25 MS. GRABEL: And I think that -- totally

1 understand. And although we haven't gotten into
2 percentages here, I think there's been consistent
3 testimony through all of the witnesses, including
4 Staff, that the power flows both directions.

5 MEMBER HAENICHEN: Oh, I know that. That's a
6 trivial point, though. I want to know how much -- and
7 it isn't really power that's flowing, it's energy --
8 how much energy is flowing in each direction over a
9 year. So I guess I'm not going to get the answer,
10 then. I'll tuck that away.

11 MS. CHANG: Yeah, we have not been able to
12 find a source of data for that.

13 MS. SCOTT: Chairman.

14 CHMN. CHENAL: Yes, Ms. Scott. Yes.

15 MS. SCOTT: I have a question for Ms. Grabel.
16 Could you give Committee Member Haenichen
17 what the contractual arrangements are or exchanges
18 between?

19 MS. GRABEL: Ms. Chang, did you hear
20 Ms. Scott's question?

21 MS. CHANG: Yes, I did.

22 The reason we simulate the way we do is we
23 only know the contractual allowed use. And perhaps
24 individual utilities that have these contractual
25 arrangements may keep track of how much is actually

1 used, but we don't have access to that information
2 because that's relatively sensitive data in the
3 marketplace.

4 So it's possible that if you go to APS they
5 may say, out of their contracted path capability or
6 transfer capability, they have used certain amounts.
7 But we don't have the historical data for each of these
8 entities you see in the box.

9 MEMBER HAENICHEN: Well, can't you ask them,
10 the APSs of the world, what they did two years ago for
11 a year?

12 MS. CHANG: Ms. Grabel, I'm relying on you
13 for that answer.

14 MS. GRABEL: For the response to that? I'm
15 sorry, I was conferring with Mr. Amirali.

16 He's available. He's putting together a
17 model that will show the effects of the Ten West and
18 the flow on the system, and perhaps this is a
19 conversation we can have when Mr. Amirali is actually
20 on the stand. It's hard for me to kind of listen to
21 him and address Ms. Chang at the same time.

22 I think, as to whether or not we can reach
23 out to APS and ask them that information, certainly we
24 can. I've asked them to participate in these
25 proceedings before, so I am talking to them, and I can

1 try to get that information. I can't promise you they
2 will, because I don't control them as an entity.

3 MEMBER HAENICHEN: You might -- this is a
4 little funny. But you might recall earlier that you
5 and I jabbed back and forth about the savings to
6 Arizona ratepayers of this project, projected savings.
7 And the total amount was 2 to \$7 million, and you chose
8 to pick the 7 million and came to a much bigger savings
9 than I did. Instead of a dollar a year, I think you
10 came up with \$3 a year.

11 Well, I may have to do the same thing with
12 this question and assume that all of the energy is
13 flowing to California in making my final decision.

14 MS. GRABEL: With due respect, Member
15 Haenichen, I don't think the evidence would support
16 that.

17 But go ahead, Chairman.

18 CHMN. CHENAL: Well, let's go see if we can
19 get some more information. I mean, maybe we can't get
20 the numbers systemwide, but maybe with a few of the
21 larger Arizona utilities we can get a sampling, APS,
22 TEP, SRP, and at least see if we can -- see if we can
23 obtain that information at least with certain utilities
24 and maybe we can extrapolate from there. But at least
25 I think that would at least give us a little

1 information. So any efforts to try to get that
2 information I think would be appreciated.

3 MS. GRABEL: Certainly, we will continue.

4 CHMN. CHENAL: And then we'll look forward to
5 Mr. Amirali's modeling testimony when he's back on the
6 stand.

7 MS. CHANG: Yeah, one more thing I would like
8 to emphasize is that 2028, as we simulate, as you saw
9 in the generation data that we showed you earlier, is
10 significantly different than history. And in our
11 simulation we see that when solar generation is very
12 high in California, Arizona benefits by not only the
13 prices decrease because there's a flood of excess
14 generation from California, but Arizona can benefit
15 from using that energy almost free or maybe even
16 negative.

17 So I just want to emphasize that the future
18 is different from the past. And if we talk about the
19 benefits to Arizona from an energy resource adequacy
20 and reliability and economical sense, we have to think
21 about that future where there is an excess generation
22 in California during certain times of the year, certain
23 times of the day, and Arizona is a beneficiary of that.

24 CHMN. CHENAL: And Ms. Chang, again, Arizona
25 being a beneficiary of that, we're talking about now

1 power coming from California back to Arizona. And with
2 the addition of this line, that would be approximately
3 650 megawatts, is that correct, based on the
4 information in your chart?

5 MS. CHANG: Yes. I mean, with the caveat
6 that because the constraint is going westward -- I
7 think your question is accurate in thinking this way,
8 is it really constraining the flows eastward. And the
9 answer is, most of -- and I think this line does
10 relieve the constraint going westward.

11 So -- but I just want to emphasize that this
12 is only under normal conditions. We're simulating a
13 system under normal conditions. Transmission line
14 offers a lot of benefits, including reliability, but
15 also optionality into the future and into unnormal
16 [sic] or not so normal conditions.

17 And this increases the robustness of the
18 entire system such that when the excess generation
19 available in California happens in the future, and it's
20 already happening, but not to the extent that it will
21 be in the future, Arizona will be able to absorb some
22 of that power at a lower cost than they would be
23 without the line. That's what our simulation shows.
24 That's why when Arizona is buying more power during
25 those sunny hours, the prices are lower than they would

1 be without the line.

2 CHMN. CHENAL: And I think I understand that,
3 I just am trying to confirm my understanding of the
4 system and how that affects the capacity on this line.

5 And so, again, with that excess generation of
6 solar power, say, in California that's going to be sent
7 to Arizona across the line, regardless of the amount of
8 energy that can be carried over the various lines of
9 Ten West Link, the system will allow for plus or minus
10 650 megawatts, correct?

11 MS. CHANG: Correct, yes.

12 CHMN. CHENAL: One question for Ms. Grabel,
13 just so we know. How many slides comprise Ms. Chang's
14 PowerPoint today?

15 MS. GRABEL: I believe there's -- I believe
16 there's --

17 MS. CHANG: Oh, we just have --

18 MS. GRABEL: -- two more.

19 MS. CHANG: Yeah, two more. Three more,
20 actually.

21 CHMN. CHENAL: That's fine. If we had 20 or
22 three, I was just trying to gauge the time. Thank you.

23 MS. CHANG: Okay.

24 CHMN. CHENAL: Member Hamway has a question.

25 MEMBER HAMWAY: Yes, Ms. Chang. You know,

1 one of the things that's kind of occurred to me is one
2 of the benefits that you talked about was the
3 speculative nature of the solar plants that are going
4 to be in Arizona. So I can see that coming online
5 quicker than storage capacity. And you're already
6 saying that California generates so much energy through
7 their solar plants that there's an excess already
8 available. And then we build these couple of plants
9 that are in the queue, you know, without the storage
10 being able to keep up with it -- you know, do you get
11 what I'm asking?

12 It just seems like there's going to be so
13 much energy on the line during the sunlight days, and
14 storage hasn't been able to keep up and, you know, it's
15 there, we may be able to use it, but it seems like
16 there's already too much to use. And then I know we go
17 into the energy imbalance market, correct? How does
18 that fit into that?

19 MS. CHANG: Yes, your concern about what we
20 call renewable energy curtailment is a very valid one.
21 In our simulation certainly the line reduces the
22 overall curtailment, because it basically opens up the
23 path, it gives more flexibility, more entities being
24 able to absorb any excess generation. So this line
25 reduces the energy curtailment, meaning too much

1 generation, we can't use it, so we're going to tell the
2 solar to essentially disconnect from the system.

3 You're right that, you know, in the future,
4 without storage or without sufficient amount of storage
5 or without sufficient amount of transmission that can
6 get the energy out of the sources or source areas, we
7 will see curtailment. And that's another value
8 associated with transmission that can enlarge the
9 transfers across areas. To the extent that there's any
10 diversity in the resources, transmission is enabling to
11 capture that diverse resource so that you can reduce
12 the curtailment and be able to allow a larger system to
13 absorb the energy from, say, solar resources. But it's
14 not just solar; solar and wind resources.

15 MEMBER HAMWAY: Okay, thank you.

16 MS. CHANG: But you're right to be concerned
17 about curtailment. In my mind, storage and
18 transmission and enlarging the markets are all methods
19 to integrate more renewables at a lower cost, and part
20 of that is the reduction in the curtailed resources.

21 CHMN. CHENAL: Member Haenichen has a
22 question.

23 MEMBER HAENICHEN: At this point, I feel
24 compelled to point out that when there -- we all know
25 that solar, if you look at the duck curve or whatever

1 they call it, doesn't have a favorable match with the
2 peak load situation in states.

3 Well, that applies to Arizona just as well as
4 California. So it may be true that during periods when
5 California's solar resources are trying to unload
6 energy because they have no place for it to go, that we
7 don't have a need for it either.

8 MEMBER HAMWAY: Exactly.

9 MEMBER HAENICHEN: So it's very important
10 to -- that ties in with my desire to have information
11 about what actually happened with an existing line.
12 And quite frankly, I'm extremely surprised that that
13 can't be answered.

14 CHMN. CHENAL: Member Hamway.

15 MEMBER HAMWAY: And to follow on to Member
16 Haenichen's question about usage, have we seen numbers
17 on the current Devers Palo Verde line? Is it at
18 complete capacity? I mean, could some of these solar
19 plants that are interested in opening up in La Paz,
20 could they tie into that today? Is there capacity to
21 take their energy?

22 MS. GRABEL: Ms. Chang, do you know the
23 answer to that question?

24 MS. CHANG: Well, you know, power flows where
25 they're needed and where they're allowed to flow, so

1 it's not just a one-directional flow of solar energy.
2 The fact that the announcement of Ten West Link
3 attracts more solar to be developed and attract them to
4 join in the queue to interconnect to Ten West Link,
5 both in Arizona and into California, suggests to me
6 that, yes, they are constrained, and they wouldn't be
7 able to interconnect and be able to sell the power or
8 discharge -- or, allow the power to flow well enough
9 without the Ten West Link. That's what the
10 interconnection queue suggests to me.

11 BY MS. GRABEL:

12 Q. Ms. Chang, would it sound reasonable to you
13 that they're physically unable to connect because
14 they're located too far from the resources?

15 A. Yes, that's a -- that's definitely one of the
16 reasons as well.

17 Q. With respect to the concerns about solar
18 generation, do you recall, on DCR Exhibit 25, the
19 nature of the solar resources that are expected to
20 interconnect to the CAISO queue associated with this
21 line? Were they purely solar or were they a
22 combination of solar plus energy storage?

23 A. It's solar with energy storage.

24 MS. GRABEL: Thank you.

25 Are there any other questions for Ms. Chang

1 associated with this slide, or may she proceed?

2 CHMN. CHENAL: Please proceed, Ms. Chang.

3 MS. CHANG: Okay. We pulled this next slide
4 together really as a diagram that gives you a sense of
5 the generation, the location of the generation near the
6 Ten West Link. And we also did this because there
7 seems to be a sense to think that all the generation is
8 in Arizona and all the energy used is in California.

9 That's simply not the case. California
10 certainly builds enough generation to meet -- you know,
11 they try to build enough generation to meet their
12 needs. But like other states, Arizona is part of a
13 larger system, and it's natural for neighboring systems
14 to share in resources and to be able to buy and sell
15 and to be able to flow power.

16 So we wanted to show you the location of the
17 generation resources both on the western side and the
18 eastern side of the line. These are also the
19 assumptions we have made in our simulations.

20 CHMN. CHENAL: Ms. Chang, this is Tom Chenal
21 again. Would you kind of go through this slide and
22 provide some description? SCE, SDG&E zone totals, all
23 the things, so we know exactly what we're looking at.
24 Thank you.

25 MS. CHANG: Yes. The top left corner -- of

1 course, we don't have the entire west, so this is
2 really only southern California and parts of Arizona.
3 And we show the generation in a bubble that represents
4 the Southern California Edison's system, or their zone,
5 the amount of generation that we have assumed in our
6 model that are associated with Southern California
7 Edison.

8 And then the lower left, it's the same thing
9 in a different bubble for San Diego Gas & Electric
10 system, and the amount of solar, wind, gas storage,
11 geothermal generation assumed in our simulation for
12 that system.

13 And then we have the IID, Imperial Irrigation
14 District, they also have generation in southern
15 California on the west side of the Ten West Link.

16 You can also see on the map, the various
17 different solar generation in Blythe. And then on the
18 eastern side of the map, in Arizona, you can see the
19 various different locations of the different gas
20 generation where you see the different names with -- CC
21 stands for combined cycle, which are gas combined cycle
22 power plants, and their relative locations.

23 And then, of course, the Palo Verde nuclear
24 plant, the 3,900 megawatts marked purple at that
25 location.

1 CHMN. CHENAL: And then the solar symbols in
2 the east, those are solar facilities, correct, the
3 yellow dots that we see?

4 MS. CHANG: Yes, yes.

5 CHMN. CHENAL: And are these -- the numbers
6 that you have up there for the various utilities, are
7 these existing or are these planned? And if they're
8 planned, how far out are you making the assumption for
9 these to exist?

10 MS. CHANG: These are existing with planned
11 for 2028, so they are the assumptions in our simulation
12 of 2028. So they include the existing and those that
13 are being planned to be built by 2028.

14 CHMN. CHENAL: Okay, thank you.

15 Member Hamway.

16 MEMBER HAMWAY: I don't see any combined
17 generation in California. I know that they've decided
18 not to have any natural gas, fossil fuel energy
19 generation plants. So are those kind of gas facilities
20 going to be in Arizona polluting our air?

21 MS. CHANG: No, you do see gas generation.
22 Under Southern California Edison, you see 8,800
23 megawatts of gas generation.

24 MEMBER HAMWAY: Oh, okay.

25 MS. CHANG: We just didn't separate them from

1 gas combined cycle versus gas turbines. And also, you
2 see at Blythe, the blue in the middle of the slide,
3 that 500 megawatts, 510 megawatts, is also a gas
4 generation, I believe it's a combined cycle.

5 MEMBER HAMWAY: But they will decommission
6 those in the coming years, correct?

7 MS. CHANG: No, actually. There are some gas
8 plants that were going to be retired in the future, but
9 they're also now retaining many of the gas plants in
10 California.

11 CHMN. CHENAL: Member Haenichen.

12 MEMBER HAENICHEN: For the benefit of the
13 Committee, could you please explain the difference
14 between a combined cycle gas plant versus a regular gas
15 plant?

16 MS. CHANG: Well, a gas turbine is just a
17 natural gas plant that uses the steam and runs a --
18 uses a gas to run the turbine. And then a combined
19 cycle has a second portion that uses a steam to
20 generate more electricity; that's why it's called
21 combined cycle. So you have the gas turbine and then
22 you have another steam turbine.

23 MEMBER HAENICHEN: Thank you.

24 CHMN. CHENAL: Member Woodall.

25 MEMBER WOODALL: Ms. Chang, this is Laurie

1 Woodall. It's my understanding that transmission
2 planning, in general, is forward-looking and projects
3 the future. Is that generally correct?

4 MS. CHANG: Yes. Transmission planning, in
5 some ways, by definition, has to look forward, because
6 it takes several years to design and build transmission
7 projects. But there are different horizons of
8 planning. In some cases, a line is urgently needed
9 because without the line, you know, there is
10 contingency on the system or the reliability is
11 suffering. Sometimes those could be very urgent,
12 within one to three years.

13 And then there are longer-term planning which
14 looks into the future and it looks at the system and
15 tries to identify what the system needs are over, say,
16 five years or longer.

17 MEMBER WOODALL: For a regional transmission
18 line such as this, in doing the transmission planning,
19 the technical planning for that, would that be a longer
20 period of time?

21 And the reason I'm asking is, you filed --
22 you filed your NEPA process in 2015. It's now 2020.
23 You've not received all the permits that you've needed.
24 It's going to be a while before you start construction.
25 It will be a while before you finish construction.

1 And so in six years from the time that you
2 originally filed your EIS, excuse me, your EIS
3 application, it seems to me that there would have been
4 a lot of changes since the time that you started and
5 the time that it would be completed. And it makes
6 sense to me that you would want to plan with a longer
7 horizon, like 10 years or seven years or what have you.

8 So my sense is, from what Mr. Amirali and you
9 have said, is that it's not uncommon to use -- make
10 assumptions about long-term regional planning for major
11 transmission lines. Is that -- am I correct?

12 MS. CHANG: Yes, I think you pinpoint the
13 challenge with transmission planning in general. It is
14 true that we have to plan ahead, because it takes a
15 long time to get through the permitting process and the
16 siting process and to design it and to build it. But
17 also, there is a challenge because the world does
18 change.

19 MEMBER WOODALL: Yes.

20 MS. CHANG: I would say 10 years ago we did
21 not anticipate the amount of solar generation. Because
22 of the reduction in the cost of solar generation, it
23 has become a dominant supply resource for the region.
24 So you are right in the sense that, yes, we do look
25 ahead as much as we can and make very careful judgments

1 about the future.

2 We usually use scenario-based planning or we
3 suggest that people use scenario-based planning to look
4 across different scenarios, and we do look ahead as
5 much as we can. The challenge with looking too far
6 ahead is the uncertainty of the future. So it's even
7 more difficult to be certain that a particular project
8 will fulfill the need if you're planning too far ahead.

9 But of course, I'm an advocate of looking
10 ahead, and I'm an advocate of transmission planning
11 considering various different scenarios into the future
12 five years and beyond or 10 years and beyond because it
13 takes so long to build a project, as you say.

14 MEMBER WOODALL: And so my question is, if we
15 knew what the flows are right now between the various
16 utilities, which was reflected on your prior slide, how
17 pertinent or relevant would that information be or how
18 accurate do you think it would be about flows in 2020?

19 And I guess what I'm trying to get at is,
20 looking to what is existing now just in and of itself,
21 without taking into account other changes that will
22 take place between now and, say, when this line is
23 built, might be a bit challenging. Because in addition
24 to the changes that will occur because of the existence
25 of this line, the world is not standing still, and

1 there are other things that are going on.

2 So I'm struggling with how information from
3 how flows go currently would be helpful to us in
4 understanding what the flows might be in five years,
5 six years, four years. I'm struggling with how to make
6 that comparison.

7 And if someone -- I just don't understand how
8 that would be helpful. And I didn't go to MIT, so
9 that's why I'm asking the question. And perhaps
10 Mr. Amirali could address this further when he
11 testifies.

12 CHMN. CHENAL: Member Woodall, I'm not sure I
13 understand what your exact question is.

14 MEMBER WOODALL: Sure, okay. If we want to
15 know what the flows are right now, how do we know that
16 that's going to be relevant to what the flows are going
17 to be in the future? Because things are going to
18 change in the future. In other words, there's going to
19 be more generation, there's going to be changes in
20 contracts, there's going to be changes in --

21 CHMN. CHENAL: Right. So the question is:
22 What's the relevancy of flows today versus the future?

23 Ms. Chang, maybe you can answer that.

24 MEMBER WOODALL: Yes, thank you for
25 summarizing it.

1 MS. CHANG: The reason we simulate the future
2 is precisely for that reason. We want show that, of
3 course, after the line is built, a few years after the
4 line is built, what the likely situation would be on
5 the system under different scenarios. That's precisely
6 why we simulate a future scenario. And I believe that
7 historical flows are not going to be useful in
8 informing whether this line is beneficial to Arizona or
9 not.

10 MEMBER WOODALL: Thank you very much for
11 answering the elegantly rephrased question from the
12 Chairman. That was precisely what I was trying to get
13 at. Thank you very much.

14 CHMN. CHENAL: Ms. Grabel.

15 MS. GRABEL: Thank you.

16 BY MS. GRABEL:

17 Q. Just following up, a couple of questions on
18 that. Ms. Chang, you established with Member Woodall
19 that a lot of change has happened since the Applicant
20 began studying this project. Do you believe that the
21 change further enhances the need for the Ten West line?

22 A. Yes. We, as you probably know that, we
23 continue to update our simulation of the line as time
24 goes by. And we have tried to keep track of the amount
25 of generation that's, for example, asking or requesting

1 to be queued up to the Ten West Link, and also the
2 difference -- the changes in the marketplace both --
3 across the west, really, between -- particularly
4 between Arizona and California, but really across the
5 west.

6 As time passes, the need for this line has
7 not decreased and the benefits have not decreased. So
8 in my mind, the value of this line has sustained
9 through the changes in the marketplace over the past
10 few years.

11 Q. Thank you. Please continue with your
12 presentation. Ms. Chang, are you ready to turn to
13 Slide 5?

14 A. Oh, sorry.

15 CHMN. CHENAL: Ms. Chang, before you begin,
16 Member Hamway has a question. Excuse me for
17 interrupting.

18 MEMBER HAMWAY: Yes, in response to Member
19 Woodall's question. You know, in order to do planning
20 for the future, you have to establish a baseline to
21 start from. And so I think that is kind of maybe where
22 we're grappling with is, what is the baseline for which
23 you are building those future assumptions on.

24 And I think without kind of that information,
25 I'm kind of with Member Haenichen. I don't know where

1 we are today, so I don't know how valid the assumptions
2 are.

3 MS. CHANG: Well, I could tell you that we do
4 our best job in anticipating what the future would look
5 like given some uncertainties, that's why we use
6 different scenarios. And we simulate, again, the
7 system with and without the line, and we show the
8 benefits of Ten West Link to Arizona.

9 So certainly we build upon our existing
10 resources, just like, you know, we don't -- we make
11 assumptions about additions of generation based on
12 current system, and then everything else is built on
13 top.

14 MEMBER HAMWAY: Thank you.

15 MS. GRABEL: And Member Hamway, to address
16 your concern, and Member Haenichen's to a degree, we
17 are producing a model that Mr. Amirali will present
18 that shows the flows on the system with and without Ten
19 West, and that might address some of the questions that
20 you have.

21 MEMBER HAMWAY: Okay, thank you.

22 MS. GRABEL: Sure.

23 CHMN. CHENAL: Please proceed.

24 BY MS. GRABEL:

25 Q. Ms. Chang, you can go ahead and proceed.

1 A. Okay. Yes, we can move to Slide 5. Slide 5
2 shows the load side of things. So up until now, we
3 talked about the generation, the amount of generation
4 in different locations, and the storage at different
5 locations. And this shows the energy consumption and
6 peak demand for 2028 in our assumptions for the three
7 major utilities in Arizona.

8 And just so you understand, we only extracted
9 and show you here the load for Arizona utilities. We
10 have to do this hourly consumption for every location
11 across the west. So this model we're talking about, if
12 you recall the transmission network and have different
13 locations, for every location there is load, we're
14 actually simulating hourly consumption at all of these
15 different locations across the entire western system.
16 So really, the combination of the generation and load
17 creates the flow on the power system.

18 On the next slide, Slide 6 --

19 CHMN. CHENAL: Before we go on the next
20 slide, two questions. One, can you estimate what the
21 2019 energy demand and peak demand was for Arizona,
22 just so I can put some context with these numbers?

23 MS. CHANG: Yes, as you -- yes, we should
24 have added that to this number. We will get those
25 numbers for you.

1 CHMN. CHENAL: Okay. And then the other --
2 the first exhibit you discussed, DCR-27, the comparison
3 of resource modeling under your various scenarios.
4 Looking ahead to 2028, it looks like, if I'm adding
5 these numbers up, 14,460, 3,210, and 9 -- well, that's
6 storage capacity, but generation capacity, gas 14,460
7 and renewable 3,210, there actually will be a shortfall
8 in generation in Arizona compared to the demand that
9 you've shown in the slide of energy demand and peak
10 demand for 2028.

11 MS. CHANG: Yeah, I think it will be useful
12 to flip to the next slide. That's what the next slide
13 actually shows.

14 CHMN. CHENAL: Oh, thank you.

15 MS. CHANG: Again, for 2028. So for 2028
16 you'll see the generation owned by the major utilities
17 in Arizona, and other generation that's not necessarily
18 contracted or owned, but physically in Arizona. So you
19 can see, for Scenario A, we have 36,000 megawatts of
20 generation. And if you take out -- well, actually,
21 there's no batteries in Scenario A, so you don't take
22 out anything. So it's 36,000 megawatts of generation
23 in Arizona.

24 CHMN. CHENAL: Thank you.

25 Member Haenichen has a question.

1 MEMBER HAENICHEN: Thank you, Mr. Chairman.
2 One thing I'd like clarified. When a
3 utility, no matter what state they're in, owns a
4 particular amount of generation -- for example, on the
5 Palo Verde nuclear generating station, there's at least
6 three California entities that own part of it and
7 Arizona entities and even someone in New Mexico, I
8 believe. What does that mean in terms of what rights
9 does that convey to the owner of that capacity? Can
10 they determine exactly how it's used?

11 MS. CHANG: Yes, that usually means that they
12 have contracted the output from that plant and the
13 transmission -- they have contracted access to
14 transmission to allow the flow of that generation.

15 MEMBER HAENICHEN: Thank you very much.

16 CHMN. CHENAL: Yes, Member Woodall.

17 MEMBER WOODALL: Ms. Chang, this is Laurie
18 Woodall. And I don't know if this is something that
19 Mr. Amirali will address, but I understand
20 Mr. Haenichen has asked some information about current
21 flows and that that will be produced.

22 And it would be helpful to me if either you
23 or Mr. Amirali could explain to me how we could compare
24 those numbers with what you have calculated for the
25 2028 planning, and whether I would, for example, just

1 subtract one against another and would it yield a
2 technically meaningful result. Because I don't
3 understand how that would work, and it would be helpful
4 if someone could explain that in the presentation.

5 It doesn't seem to me that that would be
6 pertinent, because we would be taking a static point in
7 time and measuring it against something that is, not
8 speculative, but planned that has multiple changes in
9 it. But I could be completely wrong, so it would be
10 helpful to me if someone could explain that.

11 Because I confess, I'm not a math person, but
12 I just want to know how I would meaningfully use that
13 information from a static point in time in the context
14 of the planning that has been done. So I guess that's
15 a homework assignment for somebody. Thank you.

16 MS. GRABEL: Ms. Chang, unless you can
17 address it, we'll take that as a homework assignment.

18 MS. CHANG: Okay.

19 CHMN. CHENAL: Could you go to the previous
20 slide? I'd just like to see the numbers again. Okay.

21 So in 2028, the total energy demand in
22 Arizona will be approximately 105,000 megawatts. And
23 then if we go to Slide 6 --

24 MS. CHANG: Wait, no. Sorry. Yeah, you do
25 not add up the two numbers. So I apologize, I should

1 be more clear on this. We use these names or terms a
2 little bit too loosely.

3 The energy consumption is if you added up all
4 the megawatt hours in a year consumed by the customers
5 of these utilities, you'll reach 85,000 -- I'm sorry --
6 yeah, 85,000 gigawatt hours. So if you added every
7 hour how much energy, electric energy the customers of
8 these utilities use, that's what you get, 85,000
9 gigawatt hours.

10 The coincident peak means when all of these
11 customers are turning up their usage of electricity,
12 usually in Arizona, so I'm going to guess it's sometime
13 in the afternoon of August, that peak time, how much --
14 how many megawatts is being consumed during that one
15 single hour where the system is peaking. That's the
16 20,000 megawatts number.

17 CHMN. CHENAL: What I'd like you to do is
18 compare the 2028 energy demand in Arizona with the 2028
19 energy generation capacity in Arizona, which is on the
20 next slide. And I'm just trying to compare the two.
21 Are we going to -- will Arizona need to import power to
22 meet its demand, or will it be an exporter of power in
23 2028?

24 MS. CHANG: Yeah, actually, the relevant
25 comparison, just speaking about Slides 5 and 6, are the

1 megawatt numbers. So the numbers on Slide 6 are all
2 megawatt numbers. This means this is the capability of
3 the generator to generate power at its maximum, you
4 know, subject to ratings of summer and winter and
5 things like that.

6 But let's assume these are summer ratings.
7 So these power plants all together, plus storage, can
8 generate, under Scenario A, 36,000 megawatts of
9 generation during peak. So the relevant comparison is
10 the 36,000 with the 20,000.

11 CHMN. CHENAL: All right, thank you.

12 Yes, Member Palmer.

13 MEMBER PALMER: I just want to be sure I
14 understand. So we're looking at several columns there.
15 One of the very large columns is other Arizona
16 capacity, and I'm looking at a big chunk of that is oil
17 and gas, nuclear. Am I to assume -- I think I
18 understand that, because I know there are utilities
19 outside of Arizona that own capacity in Arizona at Palo
20 Verde, at several of the large coal fire plants.

21 So am I to assume that 9,770 is capacity that
22 may be generated in Arizona that currently is going
23 elsewhere when we look -- I'm not sure I understand
24 that completely. As we look at the other columns, the
25 SRP, APS, and TEP, those are 25,000, give or take.

1 MS. CHANG: Yes, good question. So you're
2 absolutely right, the utilities either own or contract
3 a certain amount of generation, and that's what you see
4 in the first three columns. And then there's
5 additional generation that's physically in Arizona.
6 Some of them are contracted by other parties; but many
7 of them are not, and they are just selling into the
8 market, they're just generating and perhaps selling
9 short-term under contracts. But that's what the fourth
10 column is showing.

11 So you can see, and you're absolutely right,
12 if you take the total capability of 36,000 megawatts
13 and compare it to the Arizona load peak of 20,000
14 megawatts, you can see that Arizona is a net exporter
15 of generating capability.

16 Now, whether or not -- which they do, they
17 also export energy on a net basis. But exactly how
18 much they're exporting at any point in time, really
19 depends who else is generating and their cost of
20 generation.

21 CHMN. CHENAL: Thank you.

22 Member Haenichen.

23 MEMBER HAENICHEN: I notice on this chart
24 there is no coal generation shown, and this is 2028.
25 So am I to understand the assumption is that by that

1 time all the coal generation that is currently
2 operating in the state will be shut down?

3 MS. CHANG: Actually, Row 2 includes coal
4 generation in the state.

5 MEMBER HAMWAY: Row 2.

6 MEMBER HAENICHEN: Oh, I'm sorry. I didn't
7 see that. I apologize.

8 CHMN. CHENAL: Ms. Grabel.

9 MS. GRABEL: Do you have any -- oh, go ahead.

10 CHMN. CHENAL: Oh, I'm sorry. Ms. Scott.

11

12

CROSS-EXAMINATION

13 BY MS. SCOTT:

14 Q. Ms. Chang, this is Maureen Scott with the
15 Staff.

16 On the last two charts, for clarification
17 purposes, where did you derive the information
18 presented?

19 A. Could you ask that question again, please?

20 Q. Yes. For clarification purposes, for Charts
21 5 and 6, where did you derive the information that's
22 presented on the charts?

23 A. Okay. Yes, 5 and 6, they're generally from
24 the database that WECC has assembled from the energy
25 demand side. And then for Slide 6, Scenario A starts

1 with also the WECC database, and has been updated by
2 California ISO and other IRP inputs. And then we
3 further updated it for Scenarios B and C.

4 CHMN. CHENAL: Any further questions,
5 Ms. Scott?

6 MS. SCOTT: No, thank you.

7 CHMN. CHENAL: Okay. Ms. Grabel.

8 MS. GRABEL: I have a couple of redirect
9 questions, if that's all right, Chairman, unless
10 Committee or Staff has any further questions of
11 Ms. Chang unrelated to this presentation.

12 CHMN. CHENAL: Any further questions from the
13 Committee of Ms. Chang?

14 (No response.)

15 CHMN. CHENAL: Any further questions,
16 Ms. Scott, before redirect?

17 MS. SCOTT: I don't believe so. We'd like to
18 just check with our engineer to make sure she doesn't
19 have any yet.

20 CHMN. CHENAL: Certainly.

21 Ms. Grabel.

22

23 REDIRECT EXAMINATION

24 BY MS. GRABEL:

25 Q. Ms. Chang, I'd like to talk just a little bit

1 more, just put a little more on the record, about the
2 value of the Ten West Link given the changes that have
3 been taken in the system over the past, you know, five
4 or so years, if you don't mind.

5 I believe the last time that you testified
6 last week you testified that Arizona Public Service is
7 saving tens of millions of dollars associated with the
8 energy imbalance market. Do you recall that testimony?

9 A. Yes.

10 Q. And do you agree that the savings essentially
11 occurs at the Palo Verde hub?

12 A. Well, Palo Verde hub is a huge trading hub
13 across the west. It's, in fact, one of the largest, if
14 not the largest trading hub across the west. So many
15 entities, including all the utilities that either are
16 participating in the EIM now, like APS, or in the
17 future, will all be trading at Palo Verde hub. And
18 yes, through the EIM market, Ten West Link will further
19 enhance the benefits of participating in EIM because of
20 increasing the transfer capability.

21 So yes, all the benefits associated with
22 the EIM will increase because of Ten West Link, and
23 yes, many of the trades are occurring at the Palo Verde
24 hub.

25 Q. And as you just testified, the savings not

1 only accrue to the benefit of APS ratepayers, but also
2 to eventually SRP's and TEP's customers as well,
3 correct?

4 A. Exactly, when they participate in the EIM.
5 But just to be clear, the simulations that we have done
6 here includes TEP and SRP. And all the ratepayers in
7 Arizona will benefit from Ten West Link, regardless of
8 EIM. We haven't even added the benefits associated
9 with EIM associated with the Ten West Link.

10 Q. That's right. Thank you.

11 And I think you testified that APS has
12 announced recently a goal of 100 percent carbon
13 neutrality by some future date. Do you recall that
14 testimony?

15 A. Yes.

16 Q. Do you believe Ten West Link will help APS
17 meet that goal?

18 A. Absolutely. As I said earlier, transmissions
19 like Ten West Link increases the system's ability and
20 lowers the cost of integrating renewable generation
21 onto the system. So to the extent APS, and maybe in
22 the future other utilities in Arizona, want to
23 integrate more renewable energy on behalf of their
24 customers, these projects like Ten West Link will
25 enhance its capability to do so at a lower cost to all

1 the ratepayers in Arizona.

2 MS. GRABEL: Thank you, Ms. Chang. I have
3 nothing further.

4 CHMN. CHENAL: Anything further from the
5 Committee, Ms. Scott?

6 Oh, Member Hamway has a question. Excuse me.

7 MEMBER HAMWAY: I was just wondering about
8 the relationship between CAISO and the imbalance
9 market. Can you shed some light on that?

10 MS. CHANG: Is your question -- can you say
11 your question again? I understood the California ISO
12 and EIM, but what about those two?

13 MEMBER HAMWAY: Is the EIM a subset of CAISO?
14 Is it managed by CAISO? I mean, I guess, where did
15 the EIM come from?

16 MS. CHANG: I see, okay. Yes, California ISO
17 is the operator of the EIM market. The market
18 participants include entities like APS, but many other
19 utilities like PacifiCorp and other utilities across
20 the west. And in the future, TEP and SRP will be
21 participating.

22 So it's essentially a realtime, what we call
23 a realtime imbalance market or balancing market. So as
24 I explained last week, entities buy and sell. They can
25 do that on a bilateral contractual basis, and then they

1 can go to the energy market and also buy and sell in a
2 day-ahead basis. So you anticipate, 24 hours from now,
3 how much energy will be needed at different points in
4 time, and each utility will transact in the marketplace
5 and generators will sell power in the day-ahead market.

6 The imbalance market is the last-minute,
7 realtime system that basically allows entities to do a
8 last-minute trade to balance the system. And before
9 the existence of EIM, there is a realtime market in
10 California run by the California ISO.

11 What has happened in the last five years is
12 California ISO opened up that opportunity, on an
13 optional basis, to allow other entities to participate
14 in the EIM, or energy imbalance market. That means in
15 the past, California ISO just allowed all the market
16 participants in California to trade at the last minute
17 and balance its system. It opened up that opportunity,
18 about five years ago, and allowed other parties to also
19 use that last-minute opportunity to trade with each
20 other.

21 What that does is, whatever transmission is
22 still available at the last minute, all the parties --
23 all the participants of EIM can use that transmission
24 and trade without paying an export charge on the
25 transmission system.

1 Because if you actually do that on a
2 bilateral basis, say, I'm APS and I want to sell power
3 to Nevada Energy, NV Energy, on a day-ahead basis or
4 even without EIM, I would have to make a contractual
5 agreement with NV Energy, and I would have to pay -- if
6 I'm selling, I would have to pay an export charge to
7 get out of the system I'm residing in, into the next
8 system.

9 But with the EIM, they eliminate the
10 transaction cost associated with the transmission, but
11 it also opened up opportunities to trade in a fluid
12 manner, so that you no longer have to go bilaterally
13 and call each other or use a computer to transact.
14 This EIM market automatically balances, as long as you
15 put into the EIM your resources and load to allow the
16 California ISO to balance the system.

17 MEMBER HAMWAY: So before you were here one
18 of the first questions I asked was, are there
19 CAISO-managed lines in Arizona? And Mr. Ali said yes.
20 And I was just wondering, does that occur because APS
21 has joined the EIM, or are those -- or were there
22 CAISO-managed lines prior to APS joining the imbalance
23 market?

24 MS. CHANG: Yeah, very good question. No,
25 that is absolutely not related to EIM. EIM does not

1 give CAISO control over certain transmission lines.
2 All of the arrangements were occurring already before
3 the EIM participation.

4 MEMBER HAMWAY: Thank you.

5 CHMN. CHENAL: All right. Any further
6 questions?

7 MS. GRABEL: Just one clarification.

8 CHMN. CHENAL: Sure.

9 MS. GRABEL: Chairman, just one clarification
10 from me.

11 BY MS. GRABEL:

12 Q. Ms. Chang, you testified to this, but I just
13 want to make it clear for the record. So Brattle's
14 production cost analysis assumes a savings of 2 to
15 \$7 million for Arizona; is that correct?

16 A. Yes.

17 Q. And just for the record, that does not
18 include the additional benefits associated with Arizona
19 utilities participation in the energy imbalance market;
20 is that right?

21 A. Correct.

22 Q. Okay. So any additional benefits, whatever
23 they are, are not in that 2 to 7 million, that would
24 only be enhanced; correct?

25 A. Correct.

1 MS. GRABEL: Thank you very much.

2 CHMN. CHENAL: Okay. Ms. Chang, let's see.
3 You've got a couple homework assignments, I think, and
4 we'll coordinate with Ms. Grabel to get us some
5 additional information that you've been asked to
6 provide. And we very much appreciate that and
7 appreciate you making yourself available today.
8 Unfortunately, you're stuck in Boston, if I recall, and
9 you don't have the opportunity to be out here in
10 Quartzsite.

11 MS. CHANG: Yeah. I hope your site overview
12 was exciting.

13 CHMN. CHENAL: It was.

14 MS. CHANG: I wish I could have been there.

15 CHMN. CHENAL: I'm sure. So we appreciate
16 your testimony, again, and making yourself available.

17 And is there anything else, Ms. Grabel or
18 Ms. Scott, regarding Ms. Chang at this point?

19 MS. GRABEL: Nothing further from the
20 Applicant, Chairman.

21 MS. SCOTT: Nothing further from Staff.
22 Thank you.

23 CHMN. CHENAL: All right. Ms. Chang, thank
24 you very much again. Your testimony was very
25 insightful and helpful.

1 MS. CHANG: Thank you very much.

2 CHMN. CHENAL: Have a pleasant day.

3 MS. CHANG: You too. Bye-bye.

4 CHMN. CHENAL: Bye-bye.

5 Okay. This sounds like -- seems like a great
6 time to take our morning recess for 15 minutes, and
7 we'll resume in 15 minutes.

8 (Off the record from 10:47 a.m. to
9 11:17 a.m.)

10 CHMN. CHENAL: Let's go back on the record
11 and proceed with the testimony. I believe the next
12 witness is Mr. Rogers.

13 So, Ms. Grabel, if you want to proceed.

14 MS. GRABEL: Thank you, Chairman.

15 Yes, this is a continuation of Panel
16 Number 3, which was the environmental panel, which we
17 recessed Friday of last week. On this panel is
18 Mr. Lowell Rogers, who will be presenting testimony
19 regarding the NEPA process, public outreach, the BLM's
20 various alternatives, and how the project responded to
21 stakeholder concerns in devising its final route.

22 However, before we begin that presentation...

23 ///

24 ///

25 ///

1 LOWELL ROGERS (PANEL 3),
2 called as a witness on behalf of the Applicant, having
3 been previously sworn by the Chairman to speak the
4 truth and nothing but the truth, were examined and
5 testified as follows:

6

7

DIRECT EXAMINATION

8 BY MS. GRABEL:

9 Q. Mr. Rogers, yesterday you gave some testimony
10 to the Committee during the discussion of the
11 helicopter tour regarding the distance from the
12 series -- of the series compensation station to I10; is
13 that correct?

14 A. That's correct, yes.

15 Q. Do you have any correction you would like to
16 make to that testimony?

17 A. Yes, please. I misspoke. I gave you a
18 number from -- a distance from the freeway to where our
19 hover point was. The distance from the freeway to the
20 series compensation station is approximately
21 1,600 feet, that's to the closest travel way. I
22 apologize for that.

23 MEMBER VILLEGAS: Thank you for the
24 clarification.

25 CHMN. CHENAL: Yeah, and no problem.

1 Ms. Grabel, just in terms of today's
2 testimony, we're going to -- we'll have a break for
3 lunch, and then we'll have Mr. Rogers -- will
4 Mr. Amirali be testifying this afternoon?

5 MS. GRABEL: We did not anticipate that,
6 Chairman.

7 CHMN. CHENAL: So we'll be only with
8 Mr. Rogers today?

9 MS. GRABEL: That is correct.

10 CHMN. CHENAL: All right, thank you.

11 BY MS. GRABEL:

12 Q. One other thing, Mr. Rogers. Last night
13 during public comment there were a few individuals who
14 expressed some concerns regarding the project. Did the
15 Applicant reach out to them following the public
16 comment session?

17 A. Yes, we did. I'd like to talk about what
18 occurred. So yesterday we met with the members of the
19 public that was here, and we got a chance to listen to
20 concerns that they had and provide more specific
21 project information.

22 Overall, the concerns that they had were --
23 have been raised through the NEPA process to date and
24 addressed in the project that we're proposing, and
25 including the construction methods, mitigation measures

1 that are being incorporated in our approach.

2 I'll describe a lot of the NEPA issues that
3 were addressed that speak to their concerns. But
4 generally, as Mr. Amirali said in his testimony, we've
5 met with the Town of Quartzsite, La Paz County,
6 individual stakeholder groups several times over this
7 process and have heard these concerns before. In fact,
8 some of the statements that were made to you by the
9 public were also aired during the NEPA review of the
10 BLM's public comment session on the Draft EIS. So
11 these aren't new to us, and we feel that they've been
12 addressed.

13 But having said that, we are committed to
14 continuing this outreach and continuing this dialogue.
15 And at the suggestion of the members of the public,
16 we're going to reach out to the -- to Mr. Jim Ferguson
17 to set up meetings with both the Town of Quartzsite and
18 the Quartzsite Historical Roadrunners Gem and Mineral
19 Society to, again, meet with them, describe specifics
20 of the project, listen to their concerns, and generally
21 move the process forward the best we can. Thank you.

22 Q. Thank you, Mr. Rogers. Do you have the book
23 of exhibits before you?

24 A. Yes, ma'am.

25 Q. Will you please turn to Exhibit DCR-16.

1 Whoops, I'm sorry.

2 A. 16?

3 Q. 19.

4 A. Yes, I'm there.

5 Q. That is the witness presentation of
6 Mr. Lowell Rogers, correct?

7 A. That's right.

8 Q. And that is on Panel 3?

9 A. Yes.

10 Q. Have you seen this document before?

11 A. Yes, I have.

12 Q. Was it prepared by you or under your
13 direction and control?

14 A. Yes.

15 Q. Are the contents of DCR-19 true and correct,
16 to the best of your knowledge?

17 A. They are.

18 Q. Thank you, sir. Please begin your
19 presentation.

20 (Cell phone rings.)

21 MR. ROGERS: Oh, thank you for the
22 introduction.

23 CHMN. CHENAL: I turned it off too soon. I
24 should have let it play out a little more, I apologize.

25 MR. ROGERS: Yeah, yeah. I could have gone

1 over my qualifications.

2 CHMN. CHENAL: My apologies.

3 MEMBER HAENICHEN: I'd like to ask the court
4 reporter how she types that down.

5 MR. ROGERS: Again, my name is Lowell Rogers.
6 I'm the president of Oak Strategic, Incorporated.
7 We're a private engineering and consulting company that
8 specializes in energy infrastructure development,
9 engineering, environmental compliance, public outreach.

10 I hold a bachelor's degree in civil
11 engineering from the California State University at
12 Chico. I'm a licensed engineer in the states of
13 California and Washington. Over my career, I've either
14 managed or designed more than 3,000 miles of
15 transmission line involving the siting design or
16 assessment of those lines.

17 For the Ten West Link project, I'm the
18 project manager and I'm -- for DCRT. In this capacity,
19 I'm responsible for obtaining the rights-of-way from
20 the BLM. And what goes into that is developing the
21 Plan of Development, which really informs the BLM and
22 the NEPA process and what impacts are expected from the
23 project, what mitigations are required, and what kind
24 of commitments the Applicant is making.

25 I'm sorry, I missed that slide. Here it is.

1 Again, we've seen this over and over, but
2 this is the proposed project in front of you. So over
3 the next several hours, I'll try to condense four years
4 of a NEPA review in a fashion that will describe, you
5 know, what alternatives were looked at, how robust they
6 were looked at, what kind of public input was received,
7 and what kind of action was taken to satisfy those
8 public comments.

9 And this map -- as Mr. Amirali has testified,
10 DCRT was selected by the CAISO as the project sponsor
11 for an alignment that followed the DPV path, which
12 included a section through the Kofa National Wildlife
13 Refuge shown in purple.

14 Significant portions of this project crosses
15 BLM land. So as such, DCRT applied for a right-of-way
16 with the BLM, and this request was made with an
17 application called an SF299. Really, that's a form,
18 but really what that is is the project asking for a
19 right-of-way from the BLM. And that request kicked off
20 the NEPA process.

21 Throughout my presentation, I'm going to
22 refer to an SF299 route. And what that means is our
23 initial route that CAISO awarded us, that we applied to
24 the BLM for a right-of-way for, that was called the
25 proposed route also to the BLM; but since it's vastly

1 different than the proposed route to you, I'm just
2 going to make that distinction and I'll call it the
3 SF299 route for that very original proposal.

4 So as I said, with the filing of the
5 right-of-way request to the BLM, that kicked off the
6 NEPA process. As part of NEPA, the BLM is required to
7 evaluate DCRT's application and proposed project in
8 accordance to the National Environmental Policy Act, or
9 NEPA, before deciding on the action. In this case, the
10 action is granting a right-of-way.

11 What NEPA provides for first and foremost is
12 the opportunity for the public to participate. Formal
13 public participation and comment occurred at the
14 scoping phase, the Draft Environmental Impact Statement
15 phase, the Final Environmental Impact Statement phase,
16 and also the Record of Decision. And again, the
17 decision in this case revolves around the granting of a
18 right-of-way.

19 In addition to public input, agencies with a
20 nexus to the project can also participate in the
21 development of the various alternatives that are
22 assessed and provide input to the lead agency, which
23 is the BLM in this case. The EIS also must describe
24 the proposed project, in that case the SF299 route, of
25 potential impacts, mitigation of the impacts, and also

1 consider a range of alternatives to that project,
2 including a no-project action or a no-project
3 alternative.

4 So when you see a no-project alternative,
5 that's just fundamental NEPA; it's done in every case.
6 It's like what would the impacts be if there were no
7 project. So that's the purpose of it.

8 As I stated, agencies with a nexus to the
9 project can become cooperating agencies. And on the
10 Ten West project --

11 CHMN. CHENAL: Mr. Rogers, can you go back to
12 the previous slide?

13 MR. ROGERS: Sure.

14 CHMN. CHENAL: We're going through these
15 pretty fast. There's a lot of material here.

16 MR. ROGERS: There is a lot. Yes, there is.

17 CHMN. CHENAL: I'd like an opportunity just
18 to kind of review this a little more. I wasn't even
19 able to get -- I was thinking what questions I wanted,
20 and I was only halfway through the list, and we were
21 already on the next slide. So just give me a second.

22 MR. ROGERS: I apologize. Would it help if I
23 capture it here, for the court reporter as well?

24 CHMN. CHENAL: I'm sorry?

25 MR. ROGERS: Would it help if I just capture

1 the bullet points here, for the benefit of the court
2 reporter as well?

3 CHMN. CHENAL: Well, I think so.

4 MR. ROGERS: Okay. So again, NEPA requires
5 the preparation of an environmental review document, in
6 this case an EIS. And then the BLM's action is again
7 to respond to our request for a right-of-way on public
8 land that's administered by the BLM to operate --
9 construct, operate, maintain, and decommission the Ten
10 West Link project. The EIS was determined to be the
11 appropriate form of environmental review. There's
12 other lesser-intensive federal reviews for projects
13 that aren't of the same size, but an EIS was
14 appropriate for Ten West.

15 As these documents are created, the public
16 must be and was afforded the opportunity to participate
17 in the NEPA process, a review of the documents that
18 were created and provide comments, and they did. These
19 comments were considered in the agency's decision and
20 addressed in both the EIS -- the Draft EIS, the Final
21 EIS, and the Record of Decision.

22 And I'd like to dwell on this point. The
23 public was afforded, agencies were afforded the
24 opportunity to comment. And I will, later in my
25 presentation, go through every substantial comment that

1 was received that had a bearing on where the route
2 should be or what it should look like, and how those
3 comments were incorporated into the decision process
4 and how we arrived at our proposed project here.

5 So just to give you that background. It's
6 going to be somewhat tedious, but it's very detailed
7 and thoughtful, and I hope you'll come away from it
8 with an understanding that it was a robust process that
9 addressed all of the concerns, frankly, in my mind.

10 CHMN. CHENAL: Member Woodall.

11 MEMBER WOODALL: So, sir, you receive
12 comments and then you assess them and, for purposes of
13 your NEPA documentation, you indicate where the
14 concerns were addressed or why they were not relevant;
15 is that correct?

16 MR. ROGERS: Not exactly.

17 MEMBER WOODALL: Okay.

18 MR. ROGERS: DCRT doesn't receive the
19 comments or review or adjust. That's the BLM's role.

20 MEMBER WOODALL: Yes, that is what I'm asking
21 about. I'm sorry.

22 MR. ROGERS: What we did, though, is we heard
23 the comments as well. And the BLM also asked us, we
24 received this comment. How would you propose to change
25 your Plan of Development, change your approach to the

1 project to address these concerns? Is it technically
2 feasible? Is it economically viable? Is it even
3 possible? And if we did -- if we did entertain these
4 requests, what would the resulting project look like,
5 as well as the impacts?

6 MEMBER WOODALL: I see. So the applicant
7 was, in fact, responding substantively to the concerns
8 expressed by the commenters?

9 MR. ROGERS: That's right. In many cases,
10 once we understood there was a concern -- and we became
11 aware of a concern by various entities through either
12 an interface with the BLM or through our own contact
13 with these groups directly.

14 So we were very proactive getting, you know,
15 direct discussions with these entities as soon as we
16 became aware of a concern, became aware of a suggestion
17 or a requirement, and proactively pushed the BLM to
18 consider all of these and gave solutions to the BLM,
19 again, through our Plan of Development, of how to
20 satisfy these issues -- or, address them, I should say.

21 MEMBER WOODALL: And I commend you for doing
22 that, because oftentimes a federal EIS process can look
23 like, yes, we wrote down what you said, and here is how
24 the agency addressed it, and there's never any real
25 engagement with the person who expressed the concern.

1 So I have to commend the Applicant for that,
2 because that is not typical in these processes, except
3 among sophisticated developers that know that one
4 squeaky wheel can create a lot of problems.

5 MR. ROGERS: That's right. Thank you for
6 that acknowledgment. We took the approach, really as a
7 driver of the schedule we wanted to adhere to, of doing
8 more earlier than our peers. When I say "do more
9 earlier," I mean advance our design much quicker and
10 further than typically we would be at at this point.

11 We have a very developed design for this
12 project. What that does is that allows our Plan of
13 Development to be quite certain. We're at a point now
14 where we feel that our design and our approach adheres
15 to the requirements of the BLM, adheres to what we
16 believe the state requirements are going to be, adheres
17 to major landowners, such as Arizona State Lands, such
18 as the Army Corps of Engineers for crossing, such as
19 Arizona DOT, and others, and adheres to what we know
20 about cultural resources in the area and our goal of
21 avoiding those where possible.

22 We feel that our design does not need to
23 change unless we are confronted with additional
24 information. For example, if through your process you
25 require us to do something different than we had

1 anticipated, we will, of course, respond to that. If a
2 landowner would like an access road in a slightly
3 different area, we will respond to that.

4 But we feel that our impacts are documented,
5 they're defensible in the level of detail that we have
6 developed. And when I say we did more earlier than
7 others, we did that also with outreach and being
8 proactive. And it's much cheaper -- frankly, it's our
9 self-serving interest -- it's much cheaper for us to
10 understand these issues and adapt and change now than
11 when we are ready to build and at a later time during
12 construction. That's just the reality of it.

13 MEMBER WOODALL: And that is very intelligent
14 of you, because sometimes these NEPA processes are
15 really perfunctory. I don't mean the analysis is; but
16 in addressing concerns it's like, we wrote down your
17 comments, this is where it's addressed. So I think the
18 Applicant was very sophisticated in their approach to
19 this. Thank you, sir.

20 MR. ROGERS: Thank you.

21 CHMN. CHENAL: Member Drago.

22 MEMBER DRAGO: Thanks, Mr. Chairman.

23 Mr. Rogers, on Bullet 4, should we assume
24 that the tribes were involved with that part of the
25 process, or did the tribal engagement come later?

1 MR. ROGERS: No, no assumption is necessary.
2 The tribes are very involved.

3 MEMBER DRAGO: So they're considered -- in
4 that bullet it doesn't say "tribal," but it says
5 "public," so I just wanted clarity on the record.

6 MR. ROGERS: The tribes' input is a somewhat
7 unique aspect or a unique item, because they're not
8 public; they're a nation. So there is
9 government-to-government interaction that is not
10 necessarily reflected in the EIS process. It's more
11 reflected through the Section 106 consultation process.

12 So I could have included them on that bullet,
13 I believe. But when we get to the details of the
14 tribal concerns, yes, they were very vocal in avoiding
15 a section of the project that went near an area that
16 was important to them, the Mule Mountains, yes, they
17 are concerned with globally how artifacts and sites
18 that are important to them culturally are addressed,
19 and that's more of a policy and a
20 government-to-government discussion.

21 We were involved in some of those
22 discussions, but not all of them. Because, again, it's
23 a government-to-government responsibility. What we did
24 is we elected to advance our surveys, the items that we
25 had control over, in this case the Class 1 survey and

1 the Class 3 survey. The Class 3 survey is people
2 walking transects of the entire project, I believe it
3 was 10 meters apart, looking for evidence of artifacts
4 and sites on the ground that would inform us of a
5 possibility of something larger being there.

6 And we took this opportunity to, first and
7 foremost, avoid those sites in our construction
8 approach. So when we create our Historic Properties
9 Treatment Plan, we are treating as few sites and
10 artifacts as possible because --

11 And getting back to your comment, there's
12 issues between the tribes and the BLM that transcend
13 Ten West. This is a federal government tribal dialogue
14 that is beyond what we're doing here. But we are
15 trying to recognize the tribes' concerns. And in this
16 case, tribes don't really want their historical
17 presence to be boxed up and put in a museum; that's
18 what we heard over and over again.

19 So what we're doing is balancing federal law
20 that dictates a process of essentially boxing up
21 artifacts and putting them in a museum for archaeology
22 study, with the tribes' interest of not having their
23 history erased from out here. And that's the way they
24 feel about this is when projects impact their sites,
25 and then federal law needed to be exercised, they feel

1 their history is being erased.

2 So through the -- through a number of
3 avenues, we've tried our best to address those
4 concerns. First and foremost is identification. And
5 we identified these sites not simply by having our
6 archaeologists walk the areas and conduct these Class
7 3s, we identified the sites with tribal members
8 present, either singularly or double. Sometimes we had
9 two tribal members for every five archeologists walking
10 the transects.

11 And as an owner, we directed our archaeology
12 consultants to absolutely respect the tribes' input.
13 If the tribe wants us to document anything out there,
14 we document it, whether it's considered eligible or not
15 eligible for the historical register. We wanted to
16 understand what the tribes' concerns were out there and
17 what they wanted to focus on.

18 They were very interested in focusing on
19 what's called isolates. These are individual artifacts
20 that typically would just not even be logged in the
21 records, they would simply be just impacted. We've
22 logged all of those.

23 And the Programmatic Agreement that was
24 signed by the CRIT, the BLM, and the state historical
25 departments, as well as DCRT, actually is new, has a

1 new component to it that allows the tribes to relocate
2 these isolates out of the way of our project.

3 And that is very new. From my understanding,
4 this is the first project that that approach is being
5 exercised on. And that allows their history to remain
6 out there in the landscape.

7 So that's a long answer to your question, but
8 definitely the tribes have been part of this. And
9 they'll continue to be part of the project during
10 construction, during ground-disturbing activities.

11 When I say we did Class 3 surveys, that's
12 what we can see. You know, sometimes when you start to
13 dig, you find other things. We'll have representatives
14 out there and a plan in place to address these other
15 items or sites that we discover according to a
16 predeveloped plan that's been agreed to by everyone.
17 And that serves our interest in allowing construction
18 to continue in other parts of the project and maintain
19 schedule and efficiencies, but also allows us to
20 quickly address whatever we find during construction
21 and inform the tribes.

22 MEMBER DRAGO: Thanks, Mr. Rogers. That's
23 really good work. I know that the tribes, based on my
24 experience working with them, they like the early and
25 often approach. And based on what you've said, I think

1 you all have done that.

2 Just one last question. The coordinating
3 agency, then, BLM, were they the ones that scheduled
4 formal consultation in your presence?

5 MR. ROGERS: The BLM was the government
6 entity; and the Arizona State office director, Ray
7 Suazo, was the government's agent. That might not be
8 the right word. But he was the person authorized to
9 negotiate on the part of the government, represent the
10 government.

11 The tribes really don't want to meet with
12 someone that doesn't have a signatory ability to bind
13 the government. They want a government head to meet
14 with their government head, a peer-to-peer
15 relationship. And that's -- and that's what happened.
16 We were part of some of those discussions, not all. We
17 were part of the first part of a meeting, and then we
18 left, and they continued talking about other things of
19 importance to them. I think most of it was more
20 policy-related.

21 And a lot of the comments that you'll see
22 that the tribes provided to the NEPA process were
23 really reflective on that desire to have that early
24 pre-decisional discussion of the action. It wasn't
25 really -- I mean, with some exceptions of particular

1 areas they wanted to avoid, their comments are mostly
2 around wanting a better consultation,
3 government-to-government process.

4 MEMBER DRAGO: Thank you very much.

5 MR. ROGERS: So continuing, the EIS has to
6 describe the project, range of viable alternatives.
7 The route that was accepted by the BLM is the route in
8 front of you today in our application. We received our
9 Record of Decision, and I'll talk about this in more
10 detail, in late 2019. We started in July of 2015, and
11 the Record of Decision was provided to us in November
12 of 2019. So quite a process.

13 CHMN. CHENAL: Mr. Rogers, the second-to-last
14 bullet point has caught my attention, and I don't know
15 if you're going to talk about that in more detail later
16 or if this is when you talk about it. But the best
17 management practices and mitigation measures. So I
18 don't know if you're going to talk about that now or
19 later in your presentation.

20 MR. ROGERS: I actually wasn't planning on --
21 it's not included in my presentation. The number of --
22 so there's best management practices, there's
23 mitigation measures. There are things that the
24 Applicant just put in with our application that we
25 already committed to doing that are pretty customary,

1 dust control, these other things.

2 But at this point, we consider -- I consider
3 them to just be mitigation. No matter where they
4 originated from, they're part of the project now, and
5 those are documented in the EIS. The list is long, I
6 wasn't going to get into them. If there's any
7 particular mitigation that you're interested in...

8 I will be talking about some of the
9 specifics, such as visual mitigation, protection of the
10 Kofa, even though we're not on it, what are we doing to
11 address the species issues there. I'm addressing some
12 of the avian impacts, birds, and what we're doing to
13 address those impacts. If there's anything specific
14 that you're interested in, I'd be happy to talk about
15 them.

16 CHMN. CHENAL: Well, I mean, this Committee
17 issues a Certificate of Environmental Compatibility.
18 The conditions, in large measure, deal with mitigation
19 measures and what you call best management practices.
20 So I mean, those go to the heart of the conditions that
21 we put in place.

22 So I mean, to me, that is the crux of what
23 your testimony -- to me, what I'm going to listen to
24 the most is that very topic. So I think, and we can
25 get into this after lunch, not to put you on the spot

1 now, but I do think that would be very important to
2 summarize what those are.

3 Again, two points. These only apply to the
4 federal lands, and we're going to make sure they apply
5 to all other land categories. But in order to do that,
6 one of the things we have to do is to be able to refer,
7 with some specificity, to where those -- where those --
8 that universe of mitigation practice and measures, the
9 best management practices, the universe of documents
10 where those are located so that we can be specific and,
11 yes, incorporate by reference. I know we're going to
12 get that list, but I think it's important that we
13 discuss that in your testimony.

14 Ms. Grabel.

15 MS. GRABEL: And if I can, sorry, Chairman.

16 So when Mr. Lindenlaub was here on Friday, he
17 was the witness that was summarizing a lot of what the
18 BLM had done during the NEPA process, what's in the
19 Record of Decision, and how it specifically applies to
20 the CEC factors, which is why you're not seeing it in
21 Mr. Rogers' presentation. We inverted them just
22 from -- out of efficiency. And yes, of course, all of
23 the mitigation measures that you've asked for will be
24 in the document that we've promised to give you.

25 CHMN. CHENAL: Okay, perfect. Thanks. Then

1 I guess, if we've already heard it from Mr. Lindenlaub,
2 then -- and we get it in the document, Ms. Grabel, you
3 just referenced, I guess we won't have to hear it a
4 second time if it's in the record.

5 MR. ROGERS: If you need more information,
6 obviously, I'm here to help.

7 CHMN. CHENAL: Well, you're going to talk
8 about avian measures, you're going to talk about some
9 other impacts later in your testimony. Maybe at that
10 point you could kind of just generally summarize the
11 nature of the impacts again for us.

12 MR. ROGERS: Okay, I'll look for a way to do
13 that.

14 Any more questions generally on the NEPA
15 process?

16 CHMN. CHENAL: No, thank you.

17 MR. ROGERS: Okay. Again, this is the
18 cooperating agencies that the BLM took input from. And
19 when you're a cooperating agency, you don't -- you're
20 not only providing input after the documents are
21 circulated, the draft EIS and so on, you're part of the
22 regular discussions with the BLM directly.

23 We're not involved in a lot of these
24 discussions, but they contribute to the development of
25 the EIS. These included U.S. EPA, the proving ground,

1 Fish and Wildlife Service, Reclamation, Corps of
2 Engineers, Western Area Power Administration, and then
3 state and local agencies, we have Arizona Game and
4 Fish, State Lands, Maricopa, La Paz County was a big
5 contributor to that, the Town of Quartzsite was part of
6 this process, as well as the California Public
7 Utilities Commission.

8 CHMN. CHENAL: Member Hamway has a question.

9 MEMBER HAMWAY: So this is probably a
10 question to the Staff. So are the Arizona Corporation
11 Commission, are they a cooperating agency? Have they
12 been briefed on this? Are they part of the process
13 that goes into the planning?

14 MS. SCOTT: Chairman and Ms. Hamway, I'm not
15 sure. I'll have to check on that for the answer. But
16 we're not listed as a cooperating agency. Maybe
17 Ms. Woodall could supply some further information.

18 MEMBER WOODALL: Mr. Chairman, did you want
19 me to --

20 CHMN. CHENAL: Sure, yes.

21 MEMBER WOODALL: In the past, the Commission
22 itself has been asked to act as a cooperating agency.
23 And historically, it has declined that opportunity.
24 And my understanding is the rationale was, we don't
25 want to be prejudging something that will be coming

1 before that.

2 However, we do ask for courtesy copies of the
3 NEPA documents, which is how I ended up with a volume
4 of the EIS without the appendices, because one was sent
5 to the Chairman of the Corporation Commission, whose
6 advisors provided it to me.

7 But my understanding is, historically we
8 decline those. We have -- on one separate occasion,
9 Staff of the Commission had actually been a
10 participating agency, but that was a very unique
11 circumstance and that was at the direction of some of
12 the Commissioners.

13 But normally, the Staff of the Commission or
14 the Commission, neither participate in EIS processes.
15 My understanding, without breaching attorney-client
16 privilege, is there were concerns expressed by the
17 Legal Division in the past about that role.

18 CHMN. CHENAL: Member Hamway.

19 MEMBER HAMWAY: So the Commissioners being
20 briefed and being a cooperating agency are different --
21 different things?

22 MEMBER WOODALL: Well, they get information,
23 and they can read that information. But to participate
24 in the process means they would have to be making
25 agreements and counter-agreements with other agencies.

1 And my understanding is that, in the past, Legal
2 Division expressed concerns about either the Commission
3 or Staff acting in that role, particularly when it was
4 a matter that would come before the Siting Committee.

5 MEMBER HAMWAY: Okay, thanks.

6 CHMN. CHENAL: Ms. Scott.

7 MS. SCOTT: Committee Member Hamway --

8 Thank you, first of all, Committee Member
9 Woodall.

10 Committee Member Hamway, that would make
11 sense to me, as a member of the Legal Division, that we
12 would not be a cooperating agency because of the fact
13 that we're ultimately going to make a decision on the
14 CEC to approve or deny it.

15 MEMBER HAMWAY: Okay.

16 MEMBER WOODALL: And Ms. Scott, do you know
17 who Chris Kempley was?

18 MS. SCOTT: Yes, I do.

19 MEMBER WOODALL: And could you tell us who he
20 was? Not that he's deceased, but what was his role
21 with the Commission?

22 MS. SCOTT: Committee Member Woodall, Chris
23 Kempley was the chief counsel of the Commission for
24 many years.

25 MEMBER WOODALL: And it's my dim recollection

1 that it was based upon his analysis that instructions
2 were provided regarding the inappropriateness of the
3 Commission participating or the Staff participating in
4 the EIS process.

5 CHMN. CHENAL: And Member Hamway, the Line
6 Siting Committee has also been asked in the past, on at
7 least a couple occasions I recall, to be a cooperating
8 agency for projects, and I've declined that invitation
9 for the very reason that those applications would come
10 before this Committee.

11 MEMBER HAMWAY: Well, my question arose from
12 the California Public Utilities Commission. Is that
13 the California equivalent to our ACC?

14 MS. GRABEL: Chairman, Member Hamway, it
15 is -- it is a regulatory commission. It has different
16 origination, it has a different type of regulatory
17 structure, and so I don't think it's exactly an apples
18 to apples comparison. Mr. Rogers may be able to
19 address that in greater detail.

20 MR. ROGERS: Could I expand on that? So
21 California has the California Environmental Quality
22 Act, similar to NEPA. And sometimes projects that
23 cover both jurisdictions, federal and California,
24 they'll do a joint document where they'll write a
25 document together as co-leads.

1 Sometimes an alternate approach is taken
2 where the CEQA requirements can be fulfilled if the
3 federal document is written in a way that, in addition
4 to covering the requirements of NEPA, also cover the
5 requirements of CEQA.

6 So in the case of this project, early on the
7 CPUC decided that that approach would be taken, that
8 they would rely on the federal document that was
9 written to satisfy CEQA, as well as their process. So
10 as part of that, they were a cooperating agency in a
11 technical sense.

12 I would call them more of a super cooperator.
13 They were involved in much more detail on the
14 California aspects of the project than probably anybody
15 else. So it's just a little bit different and adhering
16 to different regulatory requirements.

17 MEMBER HAMWAY: Thank you.

18 MR. ROGERS: Okay. So the consideration and
19 selection of the BLM preferred route. So what factors
20 have influenced the evolution of the Ten West project?

21 So initial routing resulting from our SF299
22 application that parallel DPV, those were developed
23 through the very -- I believe the first public
24 engagement, called a scoping meeting. And the purpose
25 of a scoping meeting is for the BLM to say, hey, we got

1 this proposal. What should we study as part of this
2 analysis?

3 And what came out of that, first and
4 foremost, is the U.S. Fish and Wildlife Service said,
5 don't go through Kofa. They started to telegraph, at
6 that point, that they were not going to accept a
7 project in Kofa. So that prompted the BLM to expand
8 their universe of alternatives to study. That develops
9 about four main alternatives that would avoid Kofa.

10 And this is really where the early comments
11 from La Paz County came in that was talked about
12 earlier in the hearings of -- you know, we see their
13 letter, and this is their letter dated May 9th, 2016.
14 And they were concerned -- they wanted things such as
15 economic impacts, tourism, visual quality, all these
16 things to be studied. So as part of that, essentially
17 what this letter is saying is, hey, look, if you're
18 looking at an alternative that goes near our town, we
19 want you to study these things as part of your
20 analysis. That's a layman's kind of interpretation of
21 what they essentially did. But they were asking for
22 the BLM to hear their concerns and study them as part
23 of their analysis.

24 In total, making up these four alternatives,
25 the BLM identified 64 individual segments, and these

1 were all studied in the NEPA process. And piecing
2 those various segments together is how the BLM came up
3 with four distinct alternatives. And these are those
4 alternatives. I'm going to go through each one in more
5 detail.

6 But actually, if I could go back to scoping.
7 In essence, the Line Siting Committee -- you asked, how
8 is this proposed project different than DPV2. And
9 really, the comments surrounding the environmental
10 issues that were listed in the decision, the partition
11 of Kofa or habitat fragmentation, the diminishment of
12 visual esthetics and damage to recreational
13 opportunities, those were also addressed through the
14 BLM's process. So they knew that those three
15 environmental issues were important to a number of
16 stakeholders, not just the Line Siting Committee and
17 the Commission.

18 So if I could just go into a little bit more
19 information on this, since the Committee asked about
20 it. So just reading from the decision on DPV2,
21 "Approximately 24 miles of DPV2 would pass through the
22 Kofa National Wildlife Refuge. The record in this case
23 indicates that Kofa is one of only 535 such areas in
24 the United States, one of only nine of its kind in
25 Arizona, contains over 665,000 acres, and is a primary

1 habitat for bighorn sheep. The evidence shows that the
2 negative environmental impacts associated with
3 constructing a power line that further partitions Kofa
4 include a diminishment of the visual esthetics of Kofa,
5 damage to recreational opportunities valued by numerous
6 Arizonians, and deleterious and irreparable impacts to
7 wildlife in the area. These detriments clearly
8 outweigh the purely speculative benefits the Applicants
9 have argued might one day be associated with DPV2."

10 BY MS. GRABEL:

11 Q Mr. Rogers, just to clarify for the record,
12 you're reading from Chairman's Exhibit Number 1,
13 correct, the Arizona Corporation Commission order
14 relevant to the first DPV2 proceeding?

15 A Yes, I am.

16 Q Thank you.

17 A Yes, I am. So during this presentation, I'll
18 detail how each of these issues have been addressed.
19 Narrowly focused on Kofa, which was the ACC's concerns
20 about environmental impacts attributed to DPV2, we just
21 simply don't have these issues on Ten West because we
22 avoid Kofa.

23 But however, we're here to discuss the
24 impacts of Ten West Link broadly, and I'll describe how
25 issues of habitat, visual, and recreation have been

1 addressed for Ten West, and you'll see what our
2 approach has been to that during my presentation.

3 So again, the BLM studied four main
4 end-to-end alternatives. And in addition, obviously
5 not shown on the map, is a no-project alternative. And
6 I mentioned earlier that this document was written to
7 satisfy CEQA. A requirement of CEQA is that, in
8 addition to a no-project alternative, CEQA also
9 requires the analysis of a no-wires alternative. And
10 this is in Section 4.3, Appendix 1C, Page 288 of the
11 Final Environmental Impact Statement.

12 It specifically addresses the no-wires
13 alternative that was asked about earlier in the
14 hearings. It is the CPUC's practice to assess the
15 feasibility of the non-wires alternative as part of the
16 CEQA environmental review. So the CPUC conducted this
17 review, and this section of the EIS reflects this
18 document. It's come to our attention that they didn't
19 produce a comprehensive standalone study of this
20 no-wires alternative, they produced a series of inputs,
21 I'll call them, that allow them to write this section
22 of the document.

23 And their conclusions are that lithium ion
24 storage alternatives would cost \$768 million, with a
25 life span of no more than 20 years. Given the cost of

1 the project was explicitly capped by the CAISO, meaning
2 they wouldn't authorize that amount of money for this
3 project, in order to deliver the purported economic
4 benefits, the non-wires alternative is significantly
5 more expensive, it fails to satisfy the primary
6 objective of the project. Furthermore, a storage
7 solution would fail to deliver the numerous system
8 reliability benefits.

9 And then it concludes by saying, the
10 non-wires solution fails to satisfy the primary
11 objective of the project, and would be inefficient when
12 compared to the potential reliability benefits derived
13 from the project, meaning Ten West Link.

14 So that's getting back to the request earlier
15 to produce the non-wires alternative study. Just to
16 clarify, there was no comprehensive study done. This
17 reflects the results of the CPUC's assessment of that
18 option or that alternative as required by CEQA.

19 So again, we have four end-to-end projects,
20 and I'll go through each of them.

21 I just want to do a time check with the
22 Chairman. Should I continue?

23 CHMN. CHENAL: I think we're waiting for
24 lunch. Maybe, I mean, this could be a good place to
25 take a break. I think that would be -- let's do that,

1 and then -- we'll take our lunch break now, and then we
2 can come back and have you describe the routes.

3 MR. ROGERS: I'll go through each of them in
4 detail and the pros and cons.

5 MS. GRABEL: I think lunch will be here in
6 about five minutes. You could go through just a
7 summary of the alternatives, and then launch into each
8 of the specific ones.

9 CHMN. CHENAL: Just a quick summary of it,
10 and then we'll break.

11 MR. ROGERS: We'll go through the slides. So
12 as you can see on the map, while these four end-to-end
13 alternatives are not distinct, all of them share a
14 portion with each other. This map here, you can see
15 there's overlap in areas. So it provides the ability
16 to have just a multiple of these four if you take
17 pieces of each. But for the EIS they divided them into
18 four just for study purposes.

19 So these four -- Alternative 1 is the I10
20 route, and it generally follows the I10.

21 Alternative 2 is the BLM utility corridor.
22 It's 125 miles long, and it focuses primarily on
23 locating the project within established BLM energy
24 corridors, as the name says.

25 Alternative 3 is the avoidance route. And

1 while really it avoids issues that were brought to the
2 attention during the scoping process, so avoids Kofa,
3 avoids Johnson Canyon, the CRIT reservation, the town
4 of Quartzsite, the Ehrenberg Sandbowl area, and others.

5 Alternative 4 is an emphasis on using public
6 lands. So it looks at ways to, like it says, just
7 utilize public lands, federal lands, while avoiding an
8 area along I10 that was sensitive to the Arizona State
9 Lands Department.

10 CHMN. CHENAL: Very good, Mr. Rogers.

11 MR. ROGERS: I'll get into each of these in
12 more detail.

13 CHMN. CHENAL: Yeah. Let's take our lunch
14 break now, and then we'll resume in an hour or so.
15 Thank you.

16 (Off the record from to 12:11 p.m. to
17 1:09 p.m.)

18 CHMN. CHENAL: Let's resume the afternoon
19 portion of our hearing. I think we're ready to
20 proceed.

21 Ms. Grabel.

22 MS. GRABEL: Thank you, Chairman. I have one
23 quick thing to kind of put into the record before we
24 proceed with Mr. Rogers' presentation.

25 CHMN. CHENAL: Certainly.

1 MS. GRABEL: You and others on the Committee
2 expressed an interest in reviewing the BLM's mitigation
3 measures and looking at a summary. Over the break, we
4 located -- if you look at DCR-1, which is the CEC
5 application, Exhibit B2 is the FEIS, and Appendix 2A to
6 that are the BLM's required best management practices,
7 which outline 71 pages of mitigation measures.

8 Mr. Lindenlaub did summarize those at a high
9 level on Friday, but I know it's important to this
10 Committee. So that document is found on Page 1136 on
11 your iPad. And so if you wanted to take some time with
12 that, I think it wouldn't necessarily be a good use of
13 the time to go through the 71 pages of mitigation
14 measures here, but if you wanted to reflect on those
15 and if you have any questions later during the
16 proceedings, we're happy to answer them.

17 CHMN. CHENAL: Well, let's give us an
18 opportunity to look at that. So that's Exhibit DCR-1.

19 MS. GRABEL: Correct.

20 CHMN. CHENAL: And Page 1136.

21 MS. GRABEL: Correct.

22 CHMN. CHENAL: Applicant proposed measures
23 and BLM required best management practices. This is
24 Appendix 2A, and it's roughly 70 pages.

25 MS. GRABEL: Correct.

1 CHMN. CHENAL: Now, this is the FEIS,
2 correct, the appendix to the FEIS?

3 MS. GRABEL: Yes, it is, sir.

4 CHMN. CHENAL: Is there an agreement that
5 makes these mitigation measures applicable to the
6 Applicant, such as the Plan of Development, or is it
7 the FEIS itself? Or what is it that makes the
8 Applicant adhere to these provisions?

9 Mr. Rogers, if you can answer.

10 MR. ROGERS: So the Record of Decision adopts
11 those requirements, and a condition of our right-of-way
12 grant will be compliance with those requirements. So
13 we will not -- we will -- the expected process with the
14 BLM is that we will receive a right-of-way grant in the
15 next several months that will grant us a right-of-way
16 on BLM land, conditioned on meeting the requirements
17 required in the Record of Decision.

18 So before we can proceed with construction,
19 we will have to show compliance with those mitigation
20 measures that are preconstruction, you know, not
21 mitigation measures that apply to maintenance and
22 things like that.

23 But we need to produce a final Plan of
24 Development that demonstrates that we have a plan to
25 comply with them and that we then get the approval from

1 the BLM that they agree that our plan meets the
2 requirements of the mitigation measure, and then they
3 will issue us a notice to proceed with construction.
4 So that's the sequence of events that will happen for
5 federal lands.

6 CHMN. CHENAL: So if a condition were to, for
7 example, require the Applicant to require with -- with
8 the mitigation measures set forth in the Plan of
9 Development, that would capture the obligations of the
10 Applicant, as far as mitigation measures on the federal
11 land and the right-of-way?

12 MR. ROGERS: I apologize. Could you say that
13 one more time?

14 CHMN. CHENAL: So if we had a condition in
15 the CEC, for example, that said the Applicant will
16 comply with the requirements, including mitigation
17 measures in the Record of Decision, that would -- that
18 would capture the obligation of the Applicant to meet
19 these requirements in the federal right-of-way?

20 MR. ROGERS: I heard that you said that would
21 require us to meet those requirements on the federal
22 right-of-way. Yes, we are already obligated to follow
23 those requirements on the federal right-of-way. Did
24 you intend to -- or, did I mishear you to say that
25 these would be applicable to other areas?

1 CHMN. CHENAL: Well, that's what the
2 condition would require. But in terms of defining what
3 those obligations are, we would say, you know, the
4 Applicant will comply with the mitigation requirements
5 set forth in the Plan of Development. That would be a
6 brief way of referring, with enough specificity, would
7 it not, to what those requirements are?

8 MR. ROGERS: I believe so, yes.

9 CHMN. CHENAL: I mean, we're not going to lay
10 out 71 pages of requirements.

11 MR. ROGERS: Right. No, it's lengthy. Yes,
12 and that's what I was getting into earlier. That would
13 be you're essentially adopting the requirements of the
14 landowner and applying those elsewhere in the state.

15 CHMN. CHENAL: But the key, though, is that
16 it's the Plan of Development that requires the
17 Applicant to comply with these mitigation measures; is
18 that correct?

19 MR. ROGERS: It's the Record of Decision to
20 grant us a right-of-way, and then it will be the
21 conditions that are included in the right-of-way
22 agreement that we then -- that we are going to
23 enter into as a contract, essentially, to have that
24 right-of-way.

25 The Plan of Development is something that we

1 create that demonstrates that we are going to comply
2 with the requirements of the Record of Decision and the
3 subsequent right-of-way grant.

4 CHMN. CHENAL: So the Record of Decision
5 grants the Applicant a right-of-way, subject to meeting
6 certain requirements, and one of those requirements is
7 to come up with an acceptable Plan of Development; is
8 that --

9 MR. ROGERS: Yes.

10 CHMN. CHENAL: -- is that correct so far?

11 MR. ROGERS: Yes.

12 CHMN. CHENAL: But the Plan of Development
13 actually contains the mitigation measures that the
14 Applicant will use in the -- for the project; is that
15 correct?

16 MR. ROGERS: It describes how we're going to
17 comply with those requirements.

18 MS. GRABEL: Chairman.

19 CHMN. CHENAL: Yes.

20 MS. GRABEL: To short circuit this, we are in
21 the process of preparing -- I know exactly what you're
22 looking for. So basically, what do we need to put in
23 the CEC as a condition to assure that this reflects
24 everything that the Applicant is required to do by
25 virtue of their engagement with the BLM.

1 I've asked our team to put forth that
2 document, and we absolutely will go through that at a
3 different time. I mean, you can continue talking with
4 Mr. Rogers about it now. I just gave you the
5 mitigation measures because you specifically asked
6 about them.

7 CHMN. CHENAL: Right. I'm asking myself now
8 in my head, do we require the Applicant to comply with
9 the Plan of Development, or do we ask the Applicant to
10 comply with the Record of Decision?

11 MS. GRABEL: I believe it's the Record of
12 Decision, because that's actually the governing
13 document. The Plan of Development will reflect what
14 they're required to do by the regulatory authority.

15 CHMN. CHENAL: Okay, thank you. That's
16 helpful. That's what I was getting at.

17 So I think when we left off, you had
18 summarized the four alternative routes.

19 MR. ROGERS: That's right. So summarized the
20 four that were laid out and described in the EIS.
21 Again, all of these alternatives are comprised of 64
22 different subsection segments. For example, this
23 segment in this area that would avoid Quartzsite that
24 we flew is x-05, so that was one distinct segment that
25 was used.

1 So just so you understand kind of how the
2 structure of the FEIS is when you read through it, it's
3 all built from these fundamental building blocks of
4 individual segments that would then allow the agency to
5 piece together what they came to as what their
6 preferred option was.

7 So in a little bit more detail, each of these
8 four route alternatives -- I'll go through these
9 relatively quickly, and please ask any questions.

10 So this Alternative 1, this follows the DPV
11 line for a portion, then I10 into California. This
12 route went through the town of Quartzsite, the CRIT
13 reservation, and an area of agricultural lands in
14 California that didn't have an existing infrastructure
15 along it. This was created to take advantage of
16 paralleling I10 to the maximum extent possible.

17 Alternative 2, the BLM corridor route. This
18 alternative also follows the DPV line for a portion,
19 then I10 to California; however, it avoids the town of
20 Quartzsite. It does go through the BLM long-term
21 visitor area, which is on either side of the Highway 95
22 in this area shown by the hatch. This route was
23 created to take maximum advantage of existing BLM
24 utility corridors.

25 Alternative 3, this is the avoidance route.

1 This alternative follows the DPV line for a longer
2 section and a longer portion than the two previous
3 alternatives, and then returns to I10, but it avoids
4 Arizona state lands that they had a concern about. It
5 then avoids Kofa, Johnson Canyon, and the CRIT
6 reservation, the town of Quartzsite, Ehrenberg
7 Sandbowl, and biologically important areas of the
8 backwaters of the Colorado River.

9 CHMN. CHENAL: I had a question, Mr. Rogers.

10 MR. ROGERS: Yes, Chairman.

11 CHMN. CHENAL: I see the BLM utility corridor
12 kind of comes across right smack into the Kofa
13 Wilderness area, and on the other side, going west, it
14 comes out of the Kofa. And Kofa, I mean, whatever
15 federal agency that regulates that, is saying there's
16 no way in the world we're going to let you do it. So
17 what were they thinking when they put a BLM corridor
18 that there would be a gap in the power line of, I don't
19 know how many miles there.

20 MR. ROGERS: Well, the short answer is you
21 would have to ask them. But the longer answer is,
22 these utility corridors were developed all over the
23 west. They don't necessarily go from a particular area
24 to another particular area and connect it the whole
25 way. It just identifies corridors that are available.

1 And areas where there are gaps, you've got to figure it
2 out.

3 I mean, in all of these utility corridors, I
4 mean, they're all over, and what they would do is just
5 represent opportunities in a certain specific land area
6 for a utility project. It doesn't necessarily
7 contemplate going exactly from Delaney to exactly
8 Colorado River. Maybe there was some reason just to
9 develop a little transmission line right there. I
10 mean, that would be an opportunity to use that
11 corridor.

12 MEMBER WOODALL: Mr. Chairman.

13 CHMN. CHENAL: Yes, Member Woodall.

14 MEMBER WOODALL: I recall, in the misty dawn
15 of time, when these corridor -- BLM energy corridors
16 were first created, and there was considerable
17 consternation and questioning, and indeed on occasion
18 mockery, at the practical utility of establishing a
19 corridor which stopped in one place, and then there was
20 a large gap because the land was not under
21 jurisdiction, and then started up with another.

22 So I think this was more of an academic
23 exercise. I mean, I asked questions about these
24 matters in proceedings, so I don't think that they were
25 ever really intended to be relied upon as a proper

1 location for transmission lines. But again, I'm not
2 testifying; I'm just sharing my recollection.

3 MR. ROGERS: I will say that the utility
4 corridors along I10 were heavily advocated for by
5 several environmental nongovernment organizations, and
6 I'll get to that a little later in my presentation.
7 And other of these corridors were an attempt to locate
8 along existing infrastructure. That was a -- I think
9 that was a strong starting point for the development of
10 a lot of these corridors was, is there infrastructure
11 there already and what's the nature of it.

12 Alternative 4, this is the public lands
13 emphasis route. This alternative seeks to use BLM
14 lands to the greatest extent possible. The alternative
15 does not follow DPV out of Delaney Substation; rather,
16 it takes the shortest route in order to get to BLM
17 property. So if you start from here and you know
18 you've got to get to about here, what's the quickest
19 way to get there that has the most BLM land. That's
20 kind of, in general, where this was headed.

21 It partially is along I10 and avoids the town
22 of Quartzsite and the BLM long-term visitors center;
23 however, it does use area closer to Johnson Canyon and
24 an area closer to the proving ground.

25 So now I'll get into outreach efforts. Now,

1 during the course of the project, there were, again,
2 many avenues for the public to receive information
3 about the project and for participation in the process.
4 Formal comments to the BLM during the scoping and Draft
5 EIS was one -- or, two venues for that. The BLM also
6 had frequent discussions about the project with various
7 cooperating agencies, like I mentioned before. DCRT
8 also had direct discussions with cooperating agencies,
9 elected officials, environmental groups, tribes, and
10 the public.

11 There's a lot of information here, so please
12 let me know when you've digested it.

13 But in general, we had various means. You
14 know, we have a website. We met with, like I said,
15 lots of stakeholder groups. The BLM also had their
16 predetermined outreach process. This is, you know,
17 letters sent notifying of various meetings and
18 opportunities to comment at different phases of the
19 process, the scoping phase and the Draft EIS phase, et
20 cetera, et cetera.

21 We get into, you know, the specifics of how
22 many meetings there were and --

23 CHMN. CHENAL: Member Hamway has a question.
24 Excuse me, Mr. Rogers.

25 MEMBER HAMWAY: So the last bullet under

1 public scoping meetings, who conducted the economic
2 workshop?

3 MR. ROGERS: That was a BLM event, and let me
4 just confer real quickly to refresh my memory on one
5 aspect, please.

6 That was a BLM-organized workshop that,
7 coming out of the workshop, when we learned of some of
8 the specific inputs, DCRT produced some various, I
9 don't know, economic studies and so forth.

10 MEMBER HAMWAY: Okay.

11 CHMN. CHENAL: Member Woodall.

12 MEMBER WOODALL: So was environmental justice
13 an issue at all in either the federal EIS and/or this
14 economic workshop? And by that I mean, my
15 understanding is the federal government looks at
16 projects to determine if they're going to have a
17 disproportionate impact on certain ethnic groups and
18 certain demographics with respect to income.

19 So do you know if that economic workshop was
20 done as a component of that aspect of a NEPA review?
21 And if you don't know, that's fine.

22 MR. ROGERS: I don't think it was --
23 specifically looked at that at, the economic workshop.
24 Environmental justice is covered in the NEPA process.
25 But I'll have to say, it wasn't an issue that was, you

1 know -- it didn't really direct any of the analysis on
2 alternatives.

3 MEMBER WOODALL: That's what I gathered. But
4 I just wondered, since Quartzsite is -- I mean, we've
5 heard a lot of discussion about it being -- not having
6 a sufficient tax base, et cetera, et cetera, so that's
7 just why I wondered. And you've answered my question.
8 Thank you.

9 MR. ROGERS: So interested stakeholder
10 groups, I'm going to spend quite a bit of time on this
11 particular slide. So over the past four and a half
12 years, DCRT has, again, met with all of these groups,
13 I'd say, with the exception of the Quartzsite
14 Historical Roadrunners; I don't recall we specifically
15 met with them in person.

16 However, all of these entities provided very
17 specific comments to the Draft EIS that had focused
18 input on routing. And I'm going to go into what each
19 of their concerns were, and how they were addressed,
20 and how those issues contributed to getting here to
21 this preferred alternative or proposed alternative.

22 So somewhat going kind of chronologically in
23 the development, going from, you know, macro-siting
24 issues, such as not being able to use Kofa, more to
25 very specific issues.

1 So as I mentioned earlier, the U.S. Fish and
2 Wildlife Service objected to the alternative proposed
3 by DCRT in our SF299 application. So besides concern
4 about Kofa particularly, they were also concerned about
5 the project being located near Kofa, and they -- and
6 this is the x-05 segment. This is this portion of the
7 project. They were concerned about proximity. So not
8 only avoiding it completely, but even the proximity to
9 it. And this was regarding potential impacts to the
10 Sonoran pronghorn population.

11 So these concerns specific to the CEC
12 proposed alternative have been addressed through
13 further consultation and development of the Biological
14 Assessment with the U.S. Fish and Wildlife Service; and
15 subsequently, the service has concurred with the
16 results of that Biological Assessment. So that
17 concurrence lists various mitigation measures, I
18 believe some of which are captured in the EIS, but
19 perhaps not all of them. Not all. So this is --

20 CHMN. CHENAL: So I just want to make sure
21 that will be on the list, Ms. Grabel.

22 MS. GRABEL: Yes, Chairman.

23 CHMN. CHENAL: Okay. I don't want to have to
24 take notes of every one of these as they come up. I'll
25 just rely on the Applicant to give those to me.

1 MR. ROGERS: And it's a reoccurring theme.
2 We have, you know, a plethora of regulatory entities
3 that we need to comply with their requirements, and
4 they all perhaps have their subset of requirements.
5 I'm going to get into the specifics of the biological
6 opinion at the end of my presentation, and it talks
7 about some of those mitigation measures.

8 The Department of Defense had concerns about
9 the area of the project -- or, the alternatives, I
10 should say, that are in this region here that were not
11 on proving ground land, but they felt that it would
12 impact their operational capacity.

13 Some of the issues were just the high-ground
14 vantage point that a public access in here would
15 provide over the proving ground, kind of a pathway to
16 allow for people to be there and view perhaps what was
17 going on at the proving ground. They were also
18 concerned with some electrical interference issues
19 potentially with some of their operations on the
20 proving ground.

21 On the east end of the proving ground is this
22 corner we've talked about several times. They just
23 generally had an issue with the project being on the
24 property at all. So this -- so we addressed -- we, and
25 I'll say this, you know, the BLM really addressed this

1 concern by not selecting it as an alternative. I think
2 that was a major factor in the not selection of this
3 dark blue route.

4 So in addition to these -- and then we solved
5 the issue over on this end of the project by the aerial
6 span; the DOD was comfortable with that approach.

7 Also, generally throughout the entire
8 project, really, this area right here, the projects and
9 the alternatives intersect a number of military
10 training routes. DCRT and the DOD encroachment group
11 have had a series of discussions on the requirements
12 for the project not to impact these training routes.
13 And the way it works, and this is an example of another
14 regulatory oversight, these training routes are
15 preserved really through the FAA obstruction
16 notification process.

17 So we have now gotten a determination from
18 the FAA that we are not obstructing these flight paths,
19 and we're doing that through a host of measures, which
20 include limiting structure heights and incorporating
21 just other marking features. But the takeaway here is
22 we're, according to the FAA, we're in compliance with
23 meeting those -- not obstructing those flight paths.

24 The town of Quartzsite objected to any of the
25 alternatives that go through the town; that's the long

1 and short of it. And the alternative that goes through
2 the town, or alternatives, was not selected.

3 The Arizona SunRiders, who you heard from an
4 individual last night from that group, this is the
5 Arizona Peace Trail. You know, he described its
6 length. It traverses the Johnson Canyon area, which,
7 when we flew the canyon, it was directly south of the
8 canyon when we went through Copper Bottom Pass. This
9 canyon doesn't have any existing infrastructure, except
10 for the Peace Trail Road, which I wouldn't really call
11 infrastructure; it's a trail for off-road vehicles.
12 And they objected to the use of that trail.

13 However, they were in support of the CEC
14 proposed alternative, as noted in their November 14th,
15 2018 letter to the BLM, and I believe they've recently
16 submitted an additional letter of support.

17 Can you confirm that?

18 MS. GRABEL: That is correct, yes.

19 MR. ROGERS: That's in evidence?

20 MS. GRABEL: Exhibit DCR-7.

21 MR. ROGERS: Thank you.

22 And they noted that they don't see that the
23 Ten West would pose any visual impacts through the
24 Copper Bottom Pass at all, given the existence of the
25 infrastructure that's there.

1 The Arizona State Lands Department voiced
2 concerns about the location of the project in relation
3 to I10, feeling that there was too much separation
4 between the freeway and the transmission lines, would
5 create unusable space for a future development for
6 them. DCRT and BLM met with ASLD several times and
7 discussed their concerns.

8 And DCRT came up with a host of various, I'll
9 call them micro-alternatives, that avoid or route in
10 different ways through ASLD lands in these areas, and
11 provided the pros and cons of those various options.
12 And at the end of the day, ASLD and the BLM settled on
13 the route that's shown in the preferred alternative,
14 this proposed alternative that's in front of you. So
15 they feel that on the balance, their interests have
16 been preserved, and the line is in the best site that
17 it can be.

18 We've touched on the Central Arizona Project.
19 Earlier you heard me talk about green-up areas and
20 these vegetation areas that are on the edges of the
21 levy systems, and then also the planned pump station at
22 the Harquahala location that the city of Scottsdale is
23 planning. We were -- once we got an understanding of
24 those concerns, we jumped ahead in our level of
25 engineering in those areas, really saw, okay, what

1 exactly can we do, and we microsited our structures
2 around the green-up areas, around that pump plant to
3 avoid conflicts.

4 So in those particular areas there were, like
5 I said, instead of a larger-scale alternatives issue,
6 they were more focused, but they really got to the core
7 of the feasibility of the alternative in general. I
8 don't need to say, you know, you have to make a
9 transmission line work 100 percent of the way. You
10 can't skip over the hard parts. You know, you can't
11 have a break in the wire. So we were able to develop
12 an approach that satisfied CAP's concerns.

13 The Wilderness Society, Defenders of
14 Wildlife, NRDC, the Audubon, Sonoran Institute, and
15 Sierra Club jointly commented to the DEIS. All of
16 those entities supported avoiding Kofa, supported using
17 energy corridor, it's called 3052. This is that
18 corridor that I was referring to along I10. Like the
19 off-road vehicle organizations, they supported avoiding
20 Johnson Canyon and preferred the use of Copper Bottom
21 Pass. They also didn't avoid road construction in
22 Copper Bottom Pass -- I'm sorry, did not oppose road
23 construction in Copper Bottom Pass.

24 They were concerned with impacts to migratory
25 birds and protection of avian species in general. And

1 as a result, those were all incorporated into the
2 Biological Assessment, and DCRT is installing bird
3 diverters in agricultural areas and areas where the
4 project crosses water bodies to avoid impacting avian
5 species colliding with the lines.

6 So these concerns specific to the CEC
7 proposed alternative, so they've been addressed through
8 the consultation with the U.S. Fish and Wildlife
9 Service and the Biological Assessment. Again, I'll get
10 into the specifics of the Biological Assessment later.
11 But in a joint letter to the BLM, these groups all
12 supported the BLM's preferred alternative.

13 So we have the support of this alternative
14 from, I would say, the who's who of environmental
15 groups. So we're very proud of that, to get their
16 support. I think that's the result of a lot of
17 conversations, a lot of design processes, a lot of
18 environmental research to come up with this one. So
19 we're happy with that.

20 I spoke earlier about our interaction with
21 the Native American tribes. The CRIT, Quechan, 29
22 Palms, and the Gila River Indian community were, I
23 would say, the most vocal. They all participated in
24 the Class 3 surveys, in addition to some other tribes.

25 So they expressed support of the BLM's

1 preferred alternative, this proposal in front of you
2 today. They were satisfied that that alignment avoids
3 the Mule Mountains, that's this area in California. It
4 avoids any project feature on CRIT lands. The project,
5 as I said earlier, has implemented a Programmatic
6 Agreement, which the CRIT, Arizona State Historic
7 Preservation Office, the California State Historic
8 Preservation Office, the BLM, the Advisory Council on
9 Historic Preservation, and DCRT are all signatories to.

10 I have also talked about our Class 3
11 transects. I went into detail about how we're
12 approaching avoiding identified sites, and that kind of
13 tribal involvement has been part of every aspect of
14 this project so far.

15 CHMN. CHENAL: Mr. Rogers, quick question.
16 Does the line actually go through the CRIT --

17 MR. ROGERS: No.

18 CHMN. CHENAL: -- reservation?

19 MR. ROGERS: No.

20 CHMN. CHENAL: I didn't think so. I thought
21 it skirted -- it came really close to the southern edge
22 of it through the canyon there?

23 MR. ROGERS: Right. And it avoids it
24 completely, but it is close. I mean, there's only so
25 far you can go in the canyon.

1 So we heard from a representative of the
2 Quartzsite Historic Roadrunners Gem and Mineral Group
3 last night. We'll talk with them again in the near
4 future, when we can schedule that meeting. But
5 specific to the Draft EIS and the alternatives, they
6 expressed concerns about the project interfering with
7 phones, TV, radio in the area.

8 DCRT is conducting a detailed, what's called
9 a broadcast study. And what this does is it goes over
10 any impacts to phones, TV, radios in the project area.
11 And we don't expect to have any impacts to those
12 communication features at all.

13 So with the presence of the existing DPV line
14 that's owned by Southern Cal Edison, it's -- you know,
15 without saying they're a stakeholder in how we are
16 proximate to their line and how we cross their line.
17 So we've been interfacing with them monthly or more
18 often about exactly how we go under their lines,
19 scheduling outages, utilize their access roads, things
20 like that. So they're also a major stakeholder for us
21 in getting those crossings done.

22 Any questions, before we move on, about
23 stakeholder input to the BLM's process and how we got
24 to here?

25 I feel that of those issues brought to the

1 BLM's attention and then brought to our attention, that
2 we've addressed all the of them, and that the CEC
3 proposed alternative either avoids those impacts or
4 mitigates them.

5 CHMN. CHENAL: And at least through the NEPA
6 process, the comments that were received by the BLM --

7 MR. ROGERS: The BLM, yes. And those are
8 reflected in the exhibit to the FEIS, the processes.
9 The BLM issues a Draft Environmental Impact Statement,
10 they receive comments, and then the BLM publishes their
11 response to those comments in the FEIS and how they
12 were addressed.

13 CHMN. CHENAL: Doesn't look like there's any
14 more questions on the --

15 MS. GRABEL: Chairman, may I ask a follow-up?

16 CHMN. CHENAL: Oh, sure. Absolutely.

17 BY MS. GRABEL:

18 Q. Mr. Rogers, there was a question from Member
19 Woodall, which she then withdrew, but the Chairman
20 suggested he would like additional information about
21 the comments submitted by Supervisor Irwin from La Paz
22 County. Were you prepared to address those today?

23 A. Well, my recollection is that their comments
24 were really focused during the scoping period.

25 Q. Correct.

1 A. So their issues were studied as part of the
2 NEPA process. And then with the selection in the Draft
3 EIS of the BLM's preferred alternative, it more or less
4 satisfied their concerns, and they've subsequently
5 become a supporter of the route. My understanding is
6 that they support the current alignment. So that's how
7 their concerns were addressed is avoidance.

8 Q. And do you recall whether Supervisor Irwin
9 testified in support of the project last night during
10 the public comment session?

11 A. I do, yeah.

12 MS. GRABEL: Thank you.

13 CHMN. CHENAL: Thank you.

14 MR. ROGERS: So just to recap, we looked at a
15 robust number of alternative segments for this project.
16 I want to say it was extensive. It covered many miles
17 of assessments.

18 So now we'll just summarize what land uses
19 the project goes through and more some of the
20 quantitative values here of each of the alternatives.
21 We have the SF299 application, and then we have the
22 four alternatives that were also studied, and then the
23 BLM preferred alternative.

24 CHMN. CHENAL: And these are all separate,
25 right, these routes?

1 MR. ROGERS: All separate, yes. These are
2 all -- these four routes --

3 CHMN. CHENAL: Because I was trying to figure
4 out which of those four was selected, and I realized
5 quickly that it was none of them, none of the above,
6 and it combines elements of probably all four.

7 MR. ROGERS: It does.

8 CHMN. CHENAL: But it definitely is a
9 different route.

10 MR. ROGERS: It does. I mean, the
11 approach -- it's a complicated assessment to take, you
12 know, 64 different segments and write a document that
13 you can compare and contrast them to. And this is the
14 approach that the BLM took, to, you know, identify
15 these four along these themes: I10, BLM utility
16 corridor, avoidance. So these are kind of themes, I
17 would call them.

18 And then when they finally came time to
19 select one, they chose bits and pieces of each one,
20 which is why I feel it's important to understand that
21 all of the individual segments were thoroughly studied
22 as an individual segment and could be pieced together
23 at the end to quantify the preferred alternative.

24 CHMN. CHENAL: Could you talk just about
25 that? We've always had cases with -- or, a lot of our

1 cases have alternatives. But just a little about who
2 develops those alternatives and what the role of the
3 Applicant is in those alternatives, and then how the
4 BLM decides on its preferred route.

5 MR. ROGERS: Right. Well, the BLM develops
6 the alternatives. We then are asked to provide input
7 on how we would build a project on those alternatives.
8 Are they feasible, what kind of impacts are a result of
9 those alternatives, for instance, you know, how many
10 miles of access road would this alternative require
11 compared to this alternative.

12 And so we go and look at every one and map
13 existing access roads and quantify new access roads
14 versus existing, and we give all of that data back to
15 the BLM and then they write the EIS. They have a
16 consulting company that they hire to essentially write
17 it for them on their direction. They use our input.

18 The way I like to describe it is we provide a
19 description of the project, and then the BLM hangs the
20 impacts off of it kind of to develop a full picture for
21 full disclosure, frankly, of an alternative. And then
22 they discuss in the FEIS at length, as you can see by
23 the volume of the document, the pros and cons of all of
24 those different alternatives. And through whatever
25 calculus they have, they select an alternative.

1 And I mean, in this case, we are fully
2 supportive of that alternative. Sometimes that's not
3 the case. Sometimes the Applicant might object. Maybe
4 it's significantly more costly. Maybe it doesn't fully
5 provide all of the goals that the project wanted.
6 Maybe we really wanted to go and connect to a new solar
7 plant up near Quartzsite or something, just for an
8 example.

9 And maybe an applicant wouldn't be supportive
10 of a BLM route. And then you might, in a way, start
11 over again and try to figure out something else.
12 Maybe, you know, an applicant would ask the agency to
13 reassess, give them more information. But that's not
14 the case with us. We are -- we like this route. It's
15 buildable, it meets our needs, and we'd like to proceed
16 with it.

17 CHMN. CHENAL: So just generally, if you go
18 through -- an applicant goes through the process, not
19 Ten West Link on this project, but the applicant goes
20 through a process, BLM comes up with a preferred route.
21 The applicant then comes before a siting organization
22 committee like ours, and the siting committee decides
23 to not accept the route, but come up with a different
24 route. You know, like, for grins, if we wanted to put
25 it through the Kofa Wilderness area. Just kidding.

1 What's the option, then, of the Applicant to
2 go back to the BLM to see if there could be some
3 changes on what they're willing to provide?

4 MR. ROGERS: Well, you know, it could be a
5 fatal issue, or it could just be a quantitative numbers
6 thing. For example, I mean, when you look at this
7 table, and this is why I provided the table, the total
8 lengths of the project are pretty close to the same,
9 given all of the different alternatives, right? So
10 maybe the BLM just, at the end of the day, picked the
11 very shortest route and they said, well, that results
12 in this many acres being impacted, so that's our
13 preferred route.

14 However, another entity might come along and
15 say, well, we really prefer this route. It's 5 miles
16 longer, but it avoids a thing that is important to us.
17 We would go back to the BLM and say, this is the reason
18 why we'd like you to look at this one.

19 And the BLM or whatever agency might come to
20 the conclusion that it's not a significant impact.
21 Maybe through mitigation you can even the scales some
22 and maybe it would be acceptable to them. Maybe it
23 would result in -- I mean, you would hope that your
24 process would not get you to a point where you had two
25 siting bodies at, you know, polar opposites in route

1 selection. I mean, that's not where any applicant
2 wants to be.

3 CHMN. CHENAL: So bottom line, there is some
4 opportunity, after a state siting process, to go back
5 to the BLM, for example, and try to convince them to
6 revise their proposed preferred alternative.

7 MR. ROGERS: Yeah. But universally, the
8 result of that is huge schedule problems. I mean,
9 that's why you're seeing projects that are just delayed
10 for years, because they keep cycling through this NEPA
11 process until they get to something that works for
12 everybody. And that's challenging with transmission.
13 I mean, transmission development is, for lack of a
14 better word, it's an exercise in compromise.

15 CHMN. CHENAL: In what? I'm sorry.

16 MR. ROGERS: Compromise. Trying to meet --
17 to meet a goal that meets the applicant's needs and
18 meets whatever overriding considerations each agency
19 has and what their value system is. And I think we've
20 reached that.

21 CHMN. CHENAL: All right, thank you. One
22 last thought. Does it ever make sense to -- generally
23 the cases we get, it's the BLM first and then the
24 project -- the applicant comes to us. But I suppose
25 one could do it in reverse. One could get the

1 Certificate of Environmental Compatibility with an
2 approved route, and then go through the BLM process.
3 I'm sure there's a reason why people don't do it that
4 way, because that's not how it comes to us.

5 MR. ROGERS: Yeah, and I think the reason why
6 is in the west there's a lot of federal land, just a
7 lot of federal land. I mean, 80-some percent -- I
8 mean, here is the numbers, right, actually on this
9 slide.

10 So of the preferred alternative, we have,
11 let's say, 80 miles of it are federally owned, so well
12 over half of it. So you're approaching this entity for
13 a right-of-way that is, you know, the vast majority of
14 your project.

15 And when you look at all of the different
16 alternatives, that same situation applies to all of
17 them. I mean, they're the biggest landowner. We value
18 every landowner we go through, they all have a huge
19 stake at the table. But just given the nature of the
20 sheer size of the BLM, that's why we start there. It
21 helps us narrow it down quicker.

22 CHMN. CHENAL: And I have to ask, what's a
23 ground disturbance? The last two lines, short-term
24 acres and long-term acres. I can sense what that
25 means, but I'd rather have you explain it.

1 MR. ROGERS: Sure. So not all access roads
2 that we need we're going to keep long term. We might
3 restore some of them; that's part of this number. We
4 need a bigger structure pad to construct the tower than
5 we need for its long-term operation and maintenance, so
6 we hope to restore some of those areas. That's what
7 that comes down to.

8 CHMN. CHENAL: Thank you.

9 MR. ROGERS: So this slide describes, again,
10 the short- and long-term disturbance by alternative,
11 just breaking it up into the various components. As
12 you can see, like helicopter staging areas for Copper
13 Bottom Pass, various different items. I just wanted to
14 give you a sense that all of these have been studied in
15 detail.

16 CHMN. CHENAL: You might just kind of briefly
17 describe what those structures, material, what those
18 are, helicopter staging. Most of those are pretty
19 clear, but I'm not exactly sure what snubbing and
20 pulling sites, how that works.

21 MR. ROGERS: That's where all the fun occurs.

22 CHMN. CHENAL: Sure.

23 MR. ROGERS: No, my pleasure.

24 Structures, yes, these are our pads. I
25 showed a representative figure and how we approach

1 those in my testimony last week. Those are the
2 structures.

3 Throughout the projects we'd like to deliver
4 material to certain centralized yards and then disperse
5 it from there, that's what that line represents.

6 Helicopter staging areas, those were the blue
7 splotches on the visual tour. That's where we're going
8 to construct structures, land helicopters, lift those
9 structures up onto the hillside on Copper Bottom Pass.
10 That's what those are for.

11 Guard crossings. So in addition to the DPV
12 line, there is lots of transmission and distribution
13 and highways and roads all over out here. And what
14 these guard structures are, these are temporary
15 facilities that should we have an issue while we're
16 pulling wire in and drop a wire, it does not drop on
17 that line or drop on the freeway or drop on the
18 roadway. It's a safety issue. So --

19 CHMN. CHENAL: So what are they?

20 MR. ROGERS: They are temporary wood poles,
21 kind of like football uprights, goalpost. Really what
22 they are is just a barrier to catch a wire should it
23 fail. There are also temporary just forklifts with a
24 very wide fork pattern that would just roll up, set
25 these up for a few days while we string wire in, and

1 then they just drive away. Those are obviously very
2 convenient when we cross roads, that we just drive up
3 to them.

4 Snubbing and pulling sites. Oops, wrong
5 button. So you had a question, Chairman, yesterday
6 about, I think it was you, about how the wire would be
7 pulled into Copper Bottom Pass, and I described the two
8 operations, the puller and the tensioner that pulls the
9 wire in, and then the other one lets the wire out, and
10 it strings along the wire. These are the setup
11 locations for that equipment.

12 So again, BLM's preferred alternative, it's
13 described in the FEIS and the ROD. It's, again, the
14 same project, same mitigation, same as we're proposing
15 here.

16 Getting back to your comment, Chairman, about
17 how those alternatives were pieced together. They
18 ended up choosing Alternative 2, the BLM's
19 alternative -- BLM's utility corridor route, but they
20 used the subsegments to produce the agency's preferred
21 route. So it's 125 miles long. That's just the
22 description of it.

23 To just reiterate the obvious, it avoids Kofa
24 and it avoids impacting Johnson Canyon, which was
25 important to the OHV community. It avoids Kofa -- I'm

1 sorry. It avoids Quartzsite and avoids the town of
2 Blythe. It avoids the CRIT reservation, as I stated
3 before.

4 CHMN. CHENAL: Member Hamway.

5 MEMBER HAMWAY: So I think I read the ROD was
6 issued in November?

7 MR. ROGERS: Yes, ma'am.

8 MEMBER HAMWAY: So have you gone back to all
9 of the stakeholders and let them know what -- that
10 you're using this BLM preferred route, or how would
11 they get that information?

12 MR. ROGERS: They're on a distribution list
13 for the notification of the ROD, it's published in the
14 federal clearinghouse. It's not a secret. The BLM has
15 a process of notifying their cooperating agencies.
16 DCRT has not done that as part of the --

17 MEMBER HAMWAY: I think that was my question.
18 Has DCRT done any additional outreach to stakeholders
19 to let them know how far along in the process you are?

20 MR. ROGERS: Some yes, some no, some -- the
21 ones that we need some sort of action from, Arizona
22 State Lands, for example, yes, they know that this is
23 our preferred alternative going forward, and we're
24 conducting our application to reflect that.

25 So we've said that -- we've provided updates

1 to them on the status of where the project is with the
2 BLM and with the NEPA process. DOD is similar to that.
3 The Army Corps of Engineers knows, because that's where
4 our application to cross the Colorado River is. U.S.
5 Fish and Wildlife Service, I believe, knows, because
6 that's the result of the -- that's the route that's
7 reviewed in the Biological Assessment.

8 So we have proactively gone out to agencies,
9 I guess, we need something else from. The other ones,
10 we rely on the BLM to do that.

11 MEMBER HAMWAY: Okay, thank you.

12 CHMN. CHENAL: Member Woodall.

13 MEMBER WOODALL: Does the Applicant itself
14 have a website with respect to this project?

15 MR. ROGERS: Tenwestlink.com.

16 MEMBER WOODALL: Okay. And does the Public
17 Utilities Commission or CAISO have any web postings
18 regarding the status of this?

19 MR. ROGERS: The California Public Utilities
20 Commission does, as does the BLM.

21 MEMBER WOODALL: So there are websites that
22 people -- and as a matter of fact, my understanding is
23 part of the communiques that go out to people on a
24 distribution list will show where certain documents may
25 be obtained electronically; is that correct?

1 MR. ROGERS: Right.

2 MEMBER WOODALL: Okay, thank you.

3 MEMBER HAMWAY: I have a question.

4 CHMN. CHENAL: Member Hamway.

5 MEMBER HAMWAY: So has the Arizona
6 Corporation Commission website updated anything about
7 this project? I haven't looked, so I don't know the
8 answer. I know they're not a cooperating agency.

9 MS. SCOTT: Member Hamway, we have the
10 proceeding in our eDocket system. So you can go on our
11 website and go to our electronic documents function,
12 put in the docket number or the case number; I forget
13 what it is for this. I think the last three digits
14 that you would put in are 0295, but there are two other
15 digits that precede that. You put that in, and it will
16 bring up the full docket that we have so far on this.

17 MEMBER HAMWAY: So I would say probably no.

18 MEMBER WOODALL: If I may, we have a
19 dedicated web page that is on the Commission website,
20 and it's under Utilities Division, and it's a dedicated
21 web page for line siting matters. And it contains the
22 notices and the agendas that the Chairman publishes
23 about the place and time of the hearings.

24 And then if people want to use our eDocket
25 function, which is available on the main Commission

1 website, they can type in the numbers 19-0309, which
2 contains a record of every document that was filed in
3 connection with this matter.

4 And so at the end of the proceedings here,
5 the exhibits which have been marked for identification
6 and will be moved, if they have not already been moved
7 into evidence, will be attached to this transcript, and
8 the transcript will be filed in that document -- in
9 that docket as well.

10 So that's how we do it. We don't have a
11 special announcement regarding Line Siting projects.
12 We have a page where what's pending and what's coming
13 up is posted.

14 MS. SCOTT: Thank you, Ms. Woodall.

15 I'm sorry I had the wrong docket number in
16 mind. But it's the eDocket function that I was
17 referring to.

18 MEMBER HAMWAY: Okay. I guess I was just
19 trying to figure out, as a layperson, if I saw the sign
20 by the side of the road, could I take that information
21 and go backwards and understand where we were in the
22 process?

23 MEMBER WOODALL: So are you asking whether
24 the Applicant had the docket number on their notices?

25 MEMBER HAMWAY: I'm not 100 percent sure what

1 I'm asking. I'm just asking, could somebody logically
2 figure out where we were?

3 MEMBER WOODALL: I defer to the Applicant on
4 that one.

5 MS. GRABEL: Chairman, I can address that
6 question.

7 CHMN. CHENAL: Right. You go in the docket,
8 and you'll see every document that has been filed, you
9 know.

10 MEMBER HAMWAY: But is the docket number on
11 the sign? I doubt it.

12 MS. GRABEL: It is, actually.

13 MEMBER HAMWAY: Oh, okay.

14 MS. GRABEL: The docket number is. And
15 there's also a reference to the Applicant's website on
16 the sign as well.

17 MEMBER HAMWAY: On the sign too, okay.

18 MS. GRABEL: And our e-mail and contact
19 information.

20 MEMBER HAMWAY: Okay. All right.

21 CHMN. CHENAL: There is actually enough, and
22 it's pretty easy to navigate.

23 MEMBER HAMWAY: Okay.

24 CHMN. CHENAL: There's a dropdown that's
25 limited to line siting cases, and when you click on it

1 every Line Siting comes up, most recent being at the
2 top. So it's the easiest way to do it.

3 MR. ROGERS: Getting close.

4 CHMN. CHENAL: Mr. Rogers.

5 MR. ROGERS: Okay. Again, the FEIS led to
6 the ROD, led to our proposed project. Just to
7 reiterate again, 92 percent of this project follows
8 existing linear infrastructure, predominantly DPV along
9 the way and I10.

10 CHMN. CHENAL: I'm sorry to interrupt. What
11 we're looking at, I don't know what slide it is, but it
12 shows the proposed CEC route. It has a red line and it
13 says "proposed action" on kind of the --

14 MR. ROGERS: Yes. The red line represents
15 DPV. The green or teal line represents our proposed
16 project. We just wanted to show, you know, 92 percent
17 of this project follows existing linear infrastructure,
18 follows DPV, follows I10, follows DPV, follows the
19 transmission line in California, and then into the
20 substation.

21 CHMN. CHENAL: The proposed action -- the red
22 line looks like the original line.

23 MR. ROGERS: They're one and the same. But
24 that's DPV, the existing line that's out there now.

25 CHMN. CHENAL: The existing line?

1 MR. ROGERS: Uh-huh.

2 CHMN. CHENAL: It's just the wording, I
3 guess, was confusing. Proposed action for a line that
4 already exists.

5 MR. ROGERS: No, no. This is our proposed
6 action to you, the teal line. We just wanted to
7 represent that it follows the structure along the way.

8 CHMN. CHENAL: Right. I'm looking at the
9 legend. The red line says "proposed action."

10 MR. ROGERS: Oh, I apologize.

11 CHMN. CHENAL: And the red line refers to the
12 existing line. And I additionally was looking at it as
13 that was the Applicant's proposed action as to where
14 the Applicant wants to put the line in this
15 application.

16 MR. ROGERS: Yes, I apologize for the
17 confusion. This is -- this map is from the BLM's FEIS,
18 so the terminology "proposed action" was carried over.
19 So I'm corrected on that. I apologize.

20 So just an overview of the BLM's Record of
21 Decision. It was signed by the BLM on November 21st of
22 last year. The decision to authorize has a 50-year
23 right-of-way grant from the BLM for BLM-administered
24 lands. It amends two Resource Management Plans, the
25 Yuma Field Office RMP and the California Desert

1 Conservation Area. Those are kind of specific to just,
2 you know, detailed things that those management plans
3 require of the BLM in those areas.

4 And back to your point earlier, Chairman, the
5 ROD documents the NEPA-required mitigation measures in
6 the FEIS. So this gets back to that concept of the ROD
7 formalizes the requirements that we need to abide by.

8 CHMN. CHENAL: And the last bullet point
9 refers to the United States Fish and Wildlife Service
10 concurrence letter. What is that again, please?

11 MR. ROGERS: If you could bear with me two
12 slides, I'm going to get into detail on that and this
13 errata sheet.

14 CHMN. CHENAL: Sure.

15 MR. ROGERS: So the errata sheet, like any
16 document of its size, I suppose, there are certain
17 errata that we pointed out that were just either
18 corrections or clarifications to information that was
19 in the FEIS.

20 And why this was important to us is we want
21 as clear of a pathway to that Notice to Proceed as we
22 can get. So if the ROD didn't include this errata, the
23 possibility that there would need to be a formal
24 variance issued later on was there. So this just
25 cleans up that process even more.

1 And then these are the specifics. Most of
2 the errata dealt with issues in California.

3 CHMN. CHENAL: Just terminology. The slide
4 refers to APMs and BMPs.

5 MR. ROGERS: This is an Applicant-proposed
6 measure. So our proposal to the BLM in our very first
7 Plan of Development included a whole host of
8 Applicant-proposed measures, what we proposed to
9 mitigate for things that we already knew needed to be
10 mitigated for, things that we knew we needed to do.

11 Best management plans, that's just the BLM
12 standard best management plans for work on their lands.
13 And then specific mitigation measures that address
14 other things were also included. These could have been
15 brought forward by cooperating agencies or the BLM once
16 they started looking at the specifics of what our
17 project brought to them.

18 So the Biological Assessment. So the
19 Biological Assessment was prepared by the BLM, with
20 support from DCRT and in consultation with the U.S.
21 Fish and Wildlife Service. The BA was submitted on
22 June 19th of 2019. And the BA determined that
23 construction, operation, and decommissioning of the
24 project may affect, but is not likely to adversely
25 affect, the following threatened endangered species.

1 They're listed there. I'll give you a chance to read
2 them.

3 And then following the BA, the findings was
4 based on the occurrence and distribution of these
5 species and how the proposed project characteristics
6 impacts and various mitigation measures presented in
7 the EIS would result in a change in the project. And
8 in this case, we have bird diverters, like I mentioned
9 before, over open water and the agriculture areas. And
10 we have some seasonal restrictions and avoidance for
11 pronghorn, Sonora pronghorn in the Kofa.

12 And what this does is in this area, during
13 lambing season, we won't operate in this area. And if
14 a species gets within 1 mile of the project while
15 they're on Kofa, we'll stop construction operations.
16 We don't expect them to be there, because they don't
17 usually range in this area; but regardless, that's the
18 situation, and we'll comply with that.

19 CHMN. CHENAL: Member Hamway.

20 MEMBER HAMWAY: Okay. So I'm going to show
21 you how uneducated I am on environmental species. A
22 razorback sucker, is that a fish, and is that in the
23 Colorado River?

24 MR. ROGERS: Yes.

25 MEMBER HAMWAY: And also the chub?

1 MR. ROGERS: I believe it's a fish, too, yes.

2 MEMBER HAMWAY: Okay. And how about the Yuma
3 clapper rail?

4 MR. ROGERS: It's a bird.

5 MEMBER HAMWAY: A bird, okay.

6 MR. ROGERS: So this just documents the
7 milestone of getting the U.S. Fish and Wildlife
8 Service's concurrence that the Biological Assessment is
9 complete and that the requirements of it satisfies that
10 agency. And there's some detail here that goes over
11 it.

12 If there's any questions.

13 CHMN. CHENAL: Member Woodall.

14 I had a couple questions, too, but Member
15 Woodall first.

16 MEMBER WOODALL: In the misty past, for the
17 original DPV, Palo Verde Devers 2 line, which did go
18 through the Kofa, it was my understanding that the
19 applicant overcame the pertinent agency's concerns,
20 which I think was U.S. Fish and Wildlife Service under
21 the Department of Interior, by committing to a sum of
22 money exceeding \$1 million that would be used for
23 mitigation measures.

24 Has -- and I understand you're not going
25 through the Kofa anymore. But as part of the

1 mitigation that you're doing for any of these agencies,
2 are any cash payments contemplated? And typically -- I
3 imply no impropriety. It's just like, well, you're
4 causing a damage. And if you give us X dollars, we
5 might be able to mitigate the damage or it's going to
6 even the scales.

7 MR. ROGERS: Yeah, we're getting to the
8 specifics of that still. But I mean, we have maybe
9 some requirements for setting up habitat for habitat
10 that we disturb, so kind of set-aside lands.

11 MEMBER WOODALL: So it's possible, but not
12 determined yet?

13 MR. ROGERS: The specifics haven't been
14 worked out yet.

15 MEMBER WOODALL: Thank you.

16 CHMN. CHENAL: Just for clarification, the
17 second-to-last bullet refers to the USFWS programmatic
18 BO. What does the BO stand for?

19 MR. ROGERS: Biological opinion. So what
20 this does is there's already, you know, not project
21 specific, but regionally there is this agreement, this
22 biological opinion, to address the Mohave Desert
23 tortoise only in California. And so what we do in this
24 BA is we just adopt the requirements of that BO in that
25 particular area for that particular species.

1 CHMN. CHENAL: And what's a Section 7
2 consultation?

3 MR. ROGERS: It's listed species, how we
4 protect those species.

5 CHMN. CHENAL: I note that that's Slide 26 of
6 26.

7 MR. ROGERS: That's the end.

8 MS. GRABEL: I do have some follow-up
9 questions, Chairman.

10 CHMN. CHENAL: Yes. Sure, Ms. Grabel.

11 BY MS. GRABEL:

12 Q. Mr. Rogers, all of the documents to which you
13 referred in the last few slides of your presentation,
14 are those found in DCR Exhibit 1, which is the CEC
15 application to this matter?

16 A. Yes.

17 Q. And are they contained in Exhibit B?

18 A. I believe so, yes.

19 Q. Thank you. And also, if you'd please take a
20 look in front of you at the book of exhibits and look
21 at Exhibit DCR-20.

22 A. Okay.

23 Q. That is the Notice of Availability of the
24 Record of Decision in this matter; is that correct?

25 A. That's right.

1 Q. Is that notice regarding the ROD issued by
2 the BLM?

3 A. Yes.

4 Q. And this document, Exhibit DCR-20, was
5 published in the Federal Register; is that correct?

6 A. That's right.

7 Q. Similarly, will you please look at Exhibit
8 DCR-21, which is a similar Notice of Availability of
9 the FEIS?

10 A. Yes.

11 Q. Is that notice also issued by the BLM for Ten
12 West Link?

13 A. It is.

14 Q. And was it also published in the Federal
15 Register?

16 A. Yes.

17 MS. GRABEL: Thank you. I don't have any
18 other questions.

19 CHMN. CHENAL: One quick question,
20 Mr. Rogers. What is the federal agency that oversees
21 the Kofa Wilderness area?

22 MR. ROGERS: The U.S. Fish and Wildlife
23 Service. And we've gotten a concurrence that our
24 approach to wildlife mitigation, and particularly
25 listed species, they're comfortable with our approach.

1 CHMN. CHENAL: And just for my curiosity, is
2 there any other federal agency responsible for the
3 Kofa, like the Department of the Interior or...

4 MR. ROGERS: No. My understanding is that
5 the U.S. Fish and Wildlife Service is the administer of
6 that land.

7 CHMN. CHENAL: Any further questions of the
8 Committee -- by the Committee of Mr. Rogers, before we
9 ask the attorneys for the Arizona Corporation
10 Commission if you have any questions.

11 MS. SCOTT: Thank you, Chairman. No further
12 questions.

13 CHMN. CHENAL: All right. Ms. Grabel, are we
14 out of witnesses for today?

15 MS. GRABEL: We are out of witnesses for
16 today. I wish we did have another we could present
17 today; but unfortunately, the CAISO witness wasn't
18 available until next week, and we are not yet prepared
19 to do the DPV2. We're trying to do it as exhaustive as
20 we can, and we're working through a document that will
21 help walk through the distinction, so that was also
22 unfortunately going to take place on February 6th.

23 We also are working on, and are almost
24 complete, with a flow model, at your request, and
25 that's something that Mr. Amirali will present as well

1 on February 6th.

2 CHMN. CHENAL: So we'll have the CAISO
3 witness, we'll have Mr. Amirali.

4 MS. GRABEL: That was close. Good.

5 CHMN. CHENAL: Amirali sounds better.
6 Amirali. Will there be other witnesses? Ms. Little
7 will come back and help us out with a few follow-up
8 items, so we'll have those three witnesses. Is there
9 anyone I'm missing?

10 MS. GRABEL: The distinction between DPV2 and
11 Ten West Link might be a combination of witnesses, that
12 could be a panel, that will be Mr. Amirali and
13 Mr. Rogers most likely.

14 CHMN. CHENAL: All right. So we'll have a
15 full day next Thursday.

16 MS. GRABEL: Yes.

17 CHMN. CHENAL: We were going to talk about,
18 Ms. Grabel, housecleaning items and kind of a list of
19 things to make our homework assignments -- to make sure
20 we're all on the same page.

21 MS. GRABEL: Yes, sir.

22 CHMN. CHENAL: So if you want to talk about
23 that now.

24 MS. GRABEL: Certainly. Do you want me to
25 tick off my list and see if I'm missing anything?

1 CHMN. CHENAL: Yes, please. Not too fast.

2 MS. GRABEL: I'll go slowly. The first thing
3 that we are working on is a memorandum regarding why we
4 believe it is not legal to restrict the type of
5 generation resources that can interconnect to the Ten
6 West Link project. That is in process, and we will
7 have that ready by February 6th.

8 The second is the model discussing the way
9 scheduling works on the system, how the electricity
10 flows, that stuff -- that type of information, which is
11 at your request, Mr. Chairman. That will also touch
12 upon some things that Member Haenichen asked about as
13 well.

14 Another is the document summarizing the
15 Applicant's compliance requirements with respect to all
16 types of environmental and certain technical issues.
17 And pursuant to the conversation that you and I had
18 over the break, we will refer to the SunZia CEC and
19 specifically see if there's anything similar that we
20 should be including our CEC draft.

21 CHMN. CHENAL: Thank you.

22 MS. GRABEL: I think we talked about the
23 assumptions underlying The Brattle Group's production
24 cost model today during Ms. Chang's analysis, so I
25 think that's complete. Let me know if there's anything

1 more needed in that regard.

2 We have the detailed contrast between DPV2
3 and Ten West Link, which we are working on, and that
4 will also be submitted on February 6th.

5 Member Haenichen this morning asked about the
6 number of hours that the existing energy storage works,
7 so we will have that ready for you by February 6th as
8 well.

9 Member Haenichen this morning asked for maps
10 showing the transmission paths all over California and
11 throughout WECC, and so we will make those two, in
12 addition to the transmission path, the east of river
13 that we looked at today during Ms. Chang's
14 presentation, ready for your examination during
15 Mr. Amirali's presentation.

16 And we still have outstanding the request for
17 more detailed information about flows to and from some
18 of the larger transmission lines. We are in the
19 process. We've reached out to all of our friends in
20 the APS, SRP, TEP, and the CAISO. And so if we get
21 something, fantastic; we're doing what we can.

22 Is any of that information something that
23 you'd need to see prior to February 6th, if we needed
24 to facilitate it -- or, expedite it, I should say?

25 CHMN. CHENAL: Well, speaking for myself,

1 yeah, the compliance requirements, that list, is
2 definitely something I'd like to see as quickly as
3 possible.

4 MS. GRABEL: Okay.

5 CHMN. CHENAL: And in that regard, I mean, I
6 was frankly going to, as I think we discussed off the
7 record, as I generally do, I will take the Applicant's
8 proposed CEC and add to it some additional conditions
9 for discussion purposes by the Committee. Not every
10 one of which I would be recommending, but for
11 discussion purposes.

12 But there are certainly some conditions that
13 are in the SunZia CEC that I think would lend
14 themselves to this project. So I think I will be
15 providing something like that to the Applicant and to
16 the Committee. So to do that, I think it would be
17 helpful to have that list as soon as possible.

18 I would endeavor to be able to do that prior,
19 you know, prior to the resumption of the hearing so
20 that we all have an opportunity to look at it. I don't
21 think there's going to be any surprises in it. I'm
22 just going to go through with my able assistant, Marie
23 Cobb, her name in the record, she does a great job for
24 the Committee.

25 But there shouldn't be many surprises. But

1 if it's in SunZia and it looks like it's something that
2 should be in this one, you can assume it and we'll drop
3 it in and add it to the ones the Applicant's already
4 provided.

5 MS. GRABEL: Okay.

6 MEMBER WOODALL: Mr. Chairman, may I request
7 that you file that in the docket? Because it's
8 conceivable that, for example, at least the policy
9 advisor for the Chairman would want to review that in
10 advance and might want to give me instructions. So if
11 you can file that well before the actual hearing date,
12 it would be very helpful.

13 CHMN. CHENAL: I'll do it as fast as we can.

14 MEMBER WOODALL: Thank you very much.

15 CHMN. CHENAL: But that particular policy
16 advisor was sitting to my left at the SunZia hearing,
17 so I think he'll be very familiar with the ones that
18 he'll be seeing in this draft.

19 MEMBER WOODALL: Well, I'm just trying to
20 make sure the record is clear and everyone has access
21 to it, you know, in a timely manner. Thank you.

22 CHMN. CHENAL: Yep.

23 MS. GRABEL: And just for clarification,
24 Chairman, in the SunZia CEC, we have pulled it, there
25 isn't a list to specific documents, but some of the

1 conditions refer to, for example, the Record of
2 Decision. Is that what you mean? You want a list from
3 us of potentially relevant documents to then include in
4 our own CEC?

5 CHMN. CHENAL: Correct. In other words, I
6 want to make sure that the documents that would be
7 referred to in a CEC, similar to the way we did it in
8 the SunZia case, would be covered in this CEC, but I
9 want to make sure that I have all the, you know,
10 requirements.

11 MS. GRABEL: The right documents to
12 incorporate.

13 CHMN. CHENAL: The right documents to
14 incorporate. There won't be -- I don't envision one
15 condition that includes all the documents. They will
16 be interspersed throughout. But I want to make sure,
17 similarly to the way we did it in SunZia, that we've
18 covered all the bases and we're not leaving out
19 any standards that we should incorporate by reference.

20 MEMBER WOODALL: Mr. Chairman, do you have
21 any objection to me pulling up a copy of the SunZia
22 decision? I did not participate in that matter. Or
23 would you take administrative notice of it so that I
24 will feel comfortable in reviewing it in advance?

25 CHMN. CHENAL: Well, I hope everyone reviews

1 it in advance.

2 MEMBER WOODALL: Okay. So you take
3 administrative notice of the decision in the SunZia
4 matter?

5 CHMN. CHENAL: Sure, yes.

6 MEMBER WOODALL: Okay, great. I just want to
7 make sure it's okay. Because normally I stick to
8 whatever is presented to me by the Applicant.

9 CHMN. CHENAL: No, I think -- yes. Yes, the
10 SunZia case -- let's get the CEC case number on that.
11 CEC 171.

12 MEMBER WOODALL: Is there a case number or
13 decision number?

14 CHMN. CHENAL: The case number is 171. It's
15 Case Number 171, and it was docketed November 24th,
16 2015. And these are all easily obtained from the
17 eDocket. So I think that will be a good template to
18 work from.

19 MEMBER HAMWAY: Do we keep these iPads again?

20 MS. SCOTT: I just wanted to mention,
21 Chairman, on the eDocket function, if you don't have
22 the docket number, you can always put in the
23 Applicant's name and it will bring up the docket too.

24 MEMBER HAMWAY: It's pretty easy.

25 MEMBER WOODALL: Was this filed by

1 Southwestern Power, or was it filed in the name of
2 SunZia?

3 MEMBER PALMER: SunZia.

4 MEMBER WOODALL: It was SunZia? Okay, great.

5 CHMN. CHENAL: It's SunZia. It's easy to
6 find.

7 MEMBER WOODALL: There's a search function
8 that says name, and that's what you'd plop in. Okay,
9 thank you.

10 MS. GRABEL: And for the record, the docket
11 number is 15-0318.

12 MEMBER WOODALL: Thank you.

13 CHMN. CHENAL: Does the Applicant have a
14 problem if the Committee Members retain the iPads
15 through next week, or do you want them back now?

16 MS. GRABEL: Oh, absolutely not. That was
17 the intent.

18 CHMN. CHENAL: Okay, good.

19 We'll be reconvening in Phoenix, the same
20 facilities as we had, you know, last week. Make sure
21 we have the right time, I want to say 10:00 a.m., next
22 Thursday.

23 MS. GRABEL: Correct.

24 CHMN. CHENAL: And then on Friday it will
25 resume at 9:00.

1 MS. GRABEL: Correct.

2 CHMN. CHENAL: Sorry for these different
3 times, but we wanted to give some people the
4 opportunity, on the first day of hearing, if they're
5 out of town, to come up to Phoenix. But given the
6 length of time we had available for this, we wanted to
7 maximize the days. So our standard hearing schedule
8 has expanded a little. It turns out, I think, we've
9 done a pretty good job of estimating it.

10 Next Thursday will be busy. The goal will be
11 to complete what we have in terms of testimony on
12 Thursday. Friday maybe have our closing remarks,
13 closing statement, and then dive into the deliberative
14 process. And I think we'll be able to meet that. It
15 might be a little busy on Thursday. If we have to
16 extend a little on Thursday, I'd suggest we do it and
17 start fresh on Friday.

18 So is there anything else we should discuss
19 before we adjourn the hearing for next -- until next
20 Thursday? If there's anything that comes up, please
21 let me know. I'll look forward to receiving those
22 documents as soon as you can provide them.

23 MS. GRABEL: Certainly.

24 CHMN. CHENAL: Anything, Ms. Scott?

25 MS. SCOTT: No.

1 CHMN. CHENAL: Mr. Arias, anything?

2 MS. SCOTT: No. Thank you, Chairman.

3 MS. GRABEL: Chairman, we did e-mail a copy
4 of Exhibit DCR-29, which was the presentation from
5 Ms. Chang, to Ms. Cobb this morning, so hopefully she
6 sent that to you. We'll hand that out in hard copy
7 next week.

8 CHMN. CHENAL: She has. She sent it already.

9 MS. GRABEL: Oh, good.

10 CHMN. CHENAL: And it will be filed in the
11 docket, correct?

12 MS. GRABEL: We will file it in the docket.
13 Do we need to file all of the exhibits in the docket
14 that we're not -- well, it usually goes with the court
15 reporter, correct?

16 CHMN. CHENAL: Yes. If they're going to be
17 filed with the court reporter -- I guess we have the
18 Corporation Commission folks here, whatever their
19 reference is. If it's going to be filed as an exhibit
20 with the transcript, is it necessary to have a separate
21 copy filed in the docket?

22 MEMBER WOODALL: So you've already filed
23 copies of your witness exhibits by filing them in the
24 docket --

25 MS. GRABEL: Correct.

1 MEMBER WOODALL: -- during your presentation.
2 So the only thing that the docket would not have would
3 be the new and exciting ones that were produced during
4 the course of the hearing.

5 MS. GRABEL: Correct.

6 MEMBER WOODALL: Okay.

7 MS. GRABEL: Correct.

8 CHMN. CHENAL: Well, actually, let me jump in
9 here. I, because of some serious problems in the past
10 with Applicants, whether they needed to file exhibits
11 or not, I removed that from the procedural order. So
12 the testimony needs to be filed, but not the exhibits.

13 And so we don't -- maybe they were in this
14 case, but we don't always have the exhibits filed.
15 So -- but I think that the Applicant did in this case.

16 MS. GRABEL: We did in this case. The reason
17 I would rather not do it, if possible, is because we
18 have to file 25 copies of everything, and it's hard
19 copy. So if it suffices to have it just be filed with
20 the transcripts, that would be preferable from our
21 perspective. But I'll defer to the Committee's
22 preference in that regard.

23 MEMBER WOODALL: I have no opinion.

24 CHMN. CHENAL: Is there any objection to
25 following that?

1 MEMBER HAMWAY: I don't need anything else
2 delivered to my house.

3 CHMN. CHENAL: And the exhibits are which
4 exhibit numbers again?

5 MS. GRABEL: Let me pull up the exhibit list.
6 It's everything following CEC -- CEC Exhibit 25 through
7 30, so DCR-25 through 30.

8 CHMN. CHENAL: 25 through 30.

9 MS. GRABEL: Some are voluminous, though. If
10 you recall responding to Member Woodall's request for
11 the large generator interconnection agreement and the
12 corresponding documents, 25 copies of that kind of
13 stuff just adds up.

14 CHMN. CHENAL: Well, again, I have not made
15 it a requirement to file the exhibits with the docket
16 control, knowing that all of the exhibits that are
17 admitted will be, in effect, filed with the transcript
18 by the court reporter. So I don't think -- unless
19 there's an objection, I don't think we have to have
20 those filed right now.

21 MEMBER WOODALL: I don't have a problem in
22 this case, because you've already filed the bulk of
23 them with the docket control, and people who are
24 following the case wouldn't have to wait with bated
25 breath for the transcript of the proceedings to look at

1 them. But I personally see no need for the others that
2 have been marked after 25 to be filed in the docket;
3 that's my personal position.

4 CHMN. CHENAL: So let's -- you don't need to
5 do that.

6 MS. GRABEL: Thank you.

7 CHMN. CHENAL: Anything else?

8 (No response.)

9 CHMN. CHENAL: All right. Well, thanks
10 everyone. We'll see you in Phoenix next Thursday.

11 (The hearing recessed at 2:39 p.m.)

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1 STATE OF ARIZONA)

2 COUNTY OF MARICOPA)

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