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BEFORE THE ARIZONA POWER PLANT
AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION) DOCKET NO.
OF TUCSON ELECTRIC POWER COMPANY,) L-00000C-18-0283-00181
IN CONFORMANCE WITH THE)
REQUIREMENTS OF A.R.S § 40-360,)
et seq., FOR A CERTIFICATE OF) LS CASE NO. 181
ENVIRONMENTAL COMPATIBILITY)
AUTHORIZING THE SONORAN)
SUBSTATION TO WILMOT ENERGY)
CENTER 138 kV TRANSMISSION LINES)
AND ASSOCIATED FACILITIES)
ORIGINATING AT THE SONORAN)
SUBSTATION, SECTION 02, TOWNSHIP)
16 SOUTH, RANGE 14 EAST, AND)
TERMINATING AT THE CISNE)
SWITCHYARD, SECTIONS 14 AND 15,)
TOWNSHIP 16 SOUTH, RANGE 14 EAST,)
EACH LOCATED WITHIN PIMA COUNTY,)
ARIZONA.)
_____)

At: Tucson, Arizona
Date: September 24, 2018
Filed: October 1, 2018

REPORTER'S TRANSCRIPT OF PROCEEDINGS
VOLUME I
(Pages 1 through 148)

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1 BE IT REMEMBERED that the above-entitled and
2 numbered matter came on regularly to be heard before the
3 Arizona Power Plant and Transmission Line Siting
4 Committee at the DoubleTree Inn Hotel, 455 South Alvernon
5 Way, Tucson, Arizona, commencing at 1:07 p.m. on the 24th
6 day of September, 2018.

7

8 BEFORE: THOMAS K. CHENAL, Chairman

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

13

14

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1 APPEARANCES:

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9 Mr. Christopher A. Schmaltz
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11 Tucson Airport Authority
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13 Suite 300
14 Tucson, Arizona 85756

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1 CHMN. CHENAL: Good afternoon, everybody.

2 This is the time set for the application for
3 TEP's application, the Sonoran to Wilmot Energy Center
4 project.

5 Before we begin, let's take care of a couple
6 housekeeping items.

7 My understanding is that the breakfast and the
8 lunches will actually be in the room that's not the same
9 that we normally use, but it's up the stairs around the
10 corner. I guess people will show us where that is.

11 And then we'll -- this afternoon, of course, at
12 5:30, we have the public hearing.

13 Let's begin with appearances, please.

14 First, we need a roll call for our Committee.
15 So if I could start with Member Noland.

16 MEMBER NOLAND: Patricia Noland representing
17 the public.

18 MEMBER PALMER: James Palmer representing
19 agriculture.

20 MEMBER WOODALL: Laurie Woodall representing
21 Chairman of the Arizona Corporation Commission.

22 MEMBER HAMWAY: Mary Hamway representing cities
23 and towns.

24 MEMBER HAENICHEN: Jack Haenichen representing
25 the public.

1 MEMBER DRAGO: Len Drago representing
2 Department of Environmental Quality.

3 MEMBER RIGGINS: John Riggins representing the
4 Arizona Department of Water Resources.

5 CHMN. CHENAL: And Tom Chenal, designee of the
6 Attorney General.

7 May we have the appearances of the applicant
8 and the potential parties.

9 MR. DERSTINE: Good afternoon. Matt Derstine
10 of Snell & Wilmer on behalf of the applicant, Tucson
11 Electric Power company. To my left is Ranie Rozenberg,
12 paralegal with Snell & Wilmer.

13 MS. DECORSE: Megan DeCorse, regulatory counsel
14 for Tucson Electric Power.

15 MR. ROBERTSON: Good afternoon. Lawrence V.
16 Robertson, Jr., of counsel to the law firm of Munger
17 Chadwick, PLC, appearing on behalf of South Wilmot Land
18 Investors, LLC, which currently has pending before the
19 Committee an application for leave to intervene.

20 MR. SCHMALTZ: Greetings, Chair and Committee.
21 Christopher Schmaltz, deputy general counsel for the
22 Tucson Airport Authority, potential party intervenor.

23 CHMN. CHENAL: All right. Thank you.

24 And we'll take up the motions to intervene in
25 just a moment. That's a matter that's decided by the

1 Committee.

2 Just a reminder to anybody in the audience
3 who's part of the public, just an admonishment that if
4 you talk to members of the Committee, we cannot -- now
5 that the hearing has started, cannot talk about any
6 matters of substance concerning the application. So we
7 can talk about just about anything else, but nothing
8 having to do with the merits of the hearing.

9 As indicated, we have a hearing today. It's
10 scheduled to go for four days. My instincts tell me it's
11 not going to go that long, but it might. And we have a
12 public hearing this evening at 5:30 for call to the
13 public. But if the public wants to speak at any time
14 during the hearing, we make allowances for it, especially
15 beginning of the hearing and after breaks as an
16 accommodation for the people who, you know, take the time
17 to show up.

18 We're going to discuss -- Mr. Beck will be
19 discussing a tour in a moment, but the tour is scheduled
20 for tomorrow at 9 a.m. and provide some detail about the
21 route and specifics about that. It's part of their case,
22 actually, and exhibits.

23 So if there's nothing else at this point, let's
24 take up the applications to intervene.

25 Let's start with the application for leave to

1 intervene by South Wilmot Land Investors. Mr. Robertson,
2 if you would be kind enough to kind of give some
3 preliminary comments as to the reason your client is
4 seeking intervention. And then we'll do a vote on that,
5 and then we'll move to Mr. Schmaltz.

6 So Mr. Robertson.

7 MR. ROBERTSON: Thank you, Mr. Chairman.

8 Patrick, as part of the comments I've been
9 asked to make -- yes, you're pulling up on the screen
10 South Wilmot right now.

11 South Wilmot Land Investors, LLC, is an Arizona
12 limited liability company that currently owns
13 approximately 1,937 acres in the immediate vicinity of
14 the project that is before you today.

15 If you look at the screen on the right, you'll
16 see the area to the western part is plus or minus 700
17 acres, and the area to the south and to the eastern part
18 is plus or minus 1,237 acres.

19 Previously, South Wilmot -- and I'll use that
20 as my frame of reference for simplicity -- also owned the
21 property that you see shaded in green on the screen on
22 the right, which is indicated as the Wilmot Energy Center
23 property consisting of 1,136 acres, and they sold that to
24 NextEra in connection with NextEra's proposed Wilmot
25 Energy Center project.

1 In the screen on the left -- and the reason I
2 wanted to have that pulled up is to give you sort of an
3 orientation. If we transfer from the screen on the right
4 over to the screen on the left, that light green shaded
5 part in the lower portion of the screen on the left is
6 the Wilmot Energy Center property. And immediately above
7 sort of in the center, you see an existing residential
8 area. That's the same area that we see in the screen on
9 the right that is in the center of two areas of South
10 Wilmot's property.

11 And going back to the screen on the left, that
12 would be the 700 acres plus or minus of South Wilmot's
13 property as part of the Verano project. It's not shown
14 in the entirety. A little bit is blocked off. And to
15 the right or to the east and moving down to the southern
16 part of the screen on the left, that's the same as South
17 Wilmot's 1,237 acres.

18 Moving back to the screen on the left, the blue
19 transmission alternative shown there is what is known as
20 the Southern 1 Preferred Alternative. That proceeds from
21 the Sonoran Substation moving west over to South Swan
22 Road and then proceeds down South Swan Road for a
23 distance of a little bit over a mile going on the west
24 side of South Swan Road to where it then comes into the
25 Cisne Switchyard, which is located on the Wilmot Energy

1 Center property.

2 The other alternative that Tucson Electric
3 Power Company has identified as the Southern 2
4 Alternative, which is indicated in sort of a
5 yellowish-orange, comes out of the Sonoran Substation,
6 moving in an easterly direction for some distance, then
7 proceeds south and comes down in a north-to-south
8 direction, again here hitting the eastern part of South
9 Wilmot Land Investors' property, or the 1,237 acres.
10 Before when it reaches the end of the existing
11 residential area, it then makes a right-angle turn and
12 proceeds west coming back towards Swan Road but not quite
13 getting there where it enters the Cisne Switchyard.

14 So South Wilmot is going to be impacted by
15 either of these southern alternatives. We have had a
16 number of discussions with Tucson Electric Power. We
17 have worked with the company. And between the two
18 alternatives that the company has identified, if we are
19 permitted to intervene, our focus would be on the
20 southern routes. And as between those two, what our
21 preference would be, which would be the southern one,
22 preferred route, which also is the company's preferred
23 route.

24 So I'll conclude any additional remarks with
25 that background now, Mr. Chairman. But that's why we did

1 seek to intervene and why we believe that we could be
2 substantially affected by any decision by the Committee
3 and ultimately the Commission as it relates to the
4 southern portion of the project.

5 CHMN. CHENAL: Very good.

6 Yes, Member Noland.

7 MEMBER NOLAND: Mr. Chairman, I move that we
8 allow South Wilmot Land Investors to intervene.

9 MEMBER WOODALL: Second.

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

11 All in favor say "aye."

12 (A chorus of ayes.)

13 CHMN. CHENAL: All opposed.

14 (No response.)

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

16 Okay. The second application to intervene was
17 filed on behalf of Tucson Airport Authority.

18 So same drill, Mr. Schmaltz. Would you please
19 provide some background; and then what we'll do, we'll
20 vote on it afterwards.

21 MR. SCHMALTZ: Absolutely.

22 Thank you, Mr. Chair, Members of the Committee.

23 Tucson Airport Authority is a non-profit
24 corporation organized in 1947. It's an airport authority
25 under state statute. Via lease with the City of Tucson,

1 it owns and operates or runs and operates the Tucson
2 International Airport, which is a substantial amount of
3 property to the northwest of this location.

4 In addition, the Tucson Airport Authority
5 holds -- either owns or leases approximately 6- or 7,000
6 additional acres around the Tucson International Airport.
7 That property includes the property that is where the
8 Sonoran Substation will be located. And in addition, on
9 your screen, you see Northern 1 and Northern 2, both of
10 which will be on Tucson Airport Authority property.

11 CHMN. CHENAL: If I could just point, the
12 Northern 1 and Northern 2.

13 MR. SCHMALTZ: Thank you, Mr. Chair.

14 For that reason, we have been definitely in
15 ongoing conversations with Tucson Electric Power with
16 regard to the substation itself and a lease for the
17 substation as well as the routes that were proposed, the
18 northern routes that were proposed, from that substation.

19 For those reasons, we sought to intervene
20 because whatever route is selected, we will be
21 substantially affected. And the property and the use of
22 that property to the north will be certainly affected by
23 the choice of the routes to the north.

24 So on that basis, we would request approval of
25 our motion to intervene.

1 Thank you.

2 CHMN. CHENAL: One question, Mr. Schmaltz.
3 From the Sonoran Substation, which I am highlighting with
4 the laser there, to the Tucson Airport control tower, as
5 the crow flies, can you estimate the distance? Just put
6 this in perspective the location relative to the airport.

7 MR. SCHMALTZ: It's a rough estimate, but I
8 believe it's 3 or 4 miles. I think that's about right.
9 Yeah, I think it's about that range.

10 Thank you.

11 CHMN. CHENAL: Any further questions from the
12 Committee?

13 (No response.)

14 CHMN. CHENAL: May I have a motion?

15 MEMBER PALMER: Mr. Chairman, I'll make a
16 motion that we authorize the Tucson Airport Authority to
17 intervene.

18 MEMBER NOLAND: Second.

19 CHMN. CHENAL: We have a motion and a second.
20 Any further discussion?

21 (No response.)

22 CHMN. CHENAL: All in favor say "aye."

23 (A chorus of ayes.)

24 CHMN. CHENAL: All opposed?

25 (No response.)

1 CHMN. CHENAL: All right. Thank you.

2 All right. Before we begin with the opening
3 comments, are there any procedural matters we need to
4 discuss?

5 Let me ask, one, has there been a proper
6 exchange of witness summaries and exhibits by the
7 parties?

8 Mr. Derstine?

9 MR. DERSTINE: Yes.

10 CHMN. CHENAL: Okay. Has there been compliance
11 with the procedural order by the parties?

12 MR. DERSTINE: I believe so.

13 CHMN. CHENAL: Certainly on behalf of TEP.

14 Mr. Robertson? Mr. Schmaltz?

15 MR. ROBERTSON: Speaking for South Wilmot, yes.
16 TEP has been very cooperative, as has the Tucson Airport
17 Authority, and I believe we have all acted pursuant to
18 the Procedural Order and your directives.

19 CHMN. CHENAL: Mr. Schmaltz?

20 MR. SCHMALTZ: Yes, Mr. Chair, on behalf of
21 TAA.

22 CHMN. CHENAL: Okay. Any other procedural
23 matters we need to talk about?

24 (No response.)

25 CHMN. CHENAL: Are the parties ready to begin

1 with their opening statements?

2 MR. DERSTINE: Yes.

3 CHMN. CHENAL: Okay. Mr. Derstine.

4 MR. DERSTINE: Make sure my laser pointer is
5 working.

6 Well, good afternoon again. This is the third
7 case this year that we've had in this room. We had Case
8 177 here in January. That was the RICE generation. We
9 referred to it as the RICE generation case, although it
10 had a transmission element to it as well.

11 And then we had Case 178 that followed it that
12 was in June of this year. That was the Irvington to
13 Kino. So that involved a new line running from the
14 Irvington Substation plant, relocation of the Irvington
15 Substation out to the new Kino Substation.

16 And this is Case 181. Here we are in
17 September with our third case. It's the last case we
18 have planned for you this year, the last occasion that
19 we're going to ask you to come to Tucson. But we
20 appreciate your time and your efforts and attention and
21 handling and making time for our cases.

22 I want to, I guess, briefly, although all three
23 cases were different, talk a little bit in terms of how
24 this case, 181, is connected to the case you heard back
25 in January, 177.

1 As I mentioned, Case 177 involved 200 megawatts
2 of natural gas-fired generation from reciprocal internal
3 combustion engines. Those new RICE units are being
4 installed at the Irvington campus to replace older steam
5 generator units.

6 You may recall that when we presented that case
7 to you, the need -- what drove the need for that new
8 natural gas generation was the company's need to deal
9 with the intermittency of renewables on its system today
10 and the increasing use of renewables out into the future.

11 The RICE provided fast-ramping, efficient
12 generation that could be turned up and down as needed to
13 meet the intermittency, the variability that more and
14 more renewables are placing on the system. And we took
15 the trip out to the control center, and you got to see
16 how that system operates.

17 This, the Wilmot Energy Center, is one of those
18 new renewable projects. This is a 100-megawatt solar
19 array with a 30-megawatt battery. So one of the drivers
20 for Case 177 and the need for those RICE units was this
21 project coming online.

22 This case involves connecting the Wilmot Energy
23 Center, that 100 megawatts of solar plus 30 megawatts of
24 battery storage, to the TEP system. But it's more than
25 just a gen-tie project. This case involves -- as you can

1 see on the northern piece, will involve configuring six
2 transmission lines, bringing them into the new Sonoran
3 Substation here. And then the southern portion is the
4 gen-tie component.

5 So, again, the project involves -- and I said
6 three. I think it's actually six. Three are coming out
7 of Irvington, and then there's three other lines
8 coming from -- some from the east and one from the west
9 and routing all those existing lines into this new
10 Sonoran Substation.

11 The Sonoran Substation itself is not covered by
12 the application, but we're certainly going to talk about
13 it, and it's an integral component of the project. The
14 Sonoran Substation, the company is in the process of
15 obtaining a special exception land use permit for the
16 Sonoran Substation.

17 And then the southern piece, again, is the
18 gen-tie component from the switchyard, the Cisne
19 Switchyard, which is the tie-in to the Wilmot Energy
20 Center, which is down here to the south, and tying that
21 into this new Sonoran Substation.

22 We're going to spend a fair amount of time,
23 Mr. Beck and Mr. Raatz, talking about how those existing
24 lines will be reconfigured and tied in. The lengths you
25 see on the placemat in terms of the distance of the new

1 transmission line on the north is what it's going to take
2 to cut in and bring those existing lines over to the
3 Sonoran Substation.

4 And then, as I mentioned, to the south, you've
5 got one line, a gen-tie line. And we have two routes
6 that we're proposing again, the preferred that runs along
7 the western route along Swan Road and connects into the
8 Sonoran here.

9 The considerations in selecting routes both for
10 the northern and the southern were certainly driven by
11 land use considerations. You can see -- and Ms. Rucker
12 will go into fairly detailed testimony about this, but
13 you've got some residential use shown here in red.
14 You've got some -- two prisons. And you have some
15 industrial uses or gravel yards and then TAA up here on
16 the left.

17 So the land ownership and the existing uses in
18 the project area are what largely drove the selection of
19 these routes. But we want to be clear that we're working
20 with two primary stakeholders, Tucson Airport Authority
21 and Mr. Robertson's client, South Wilmot Land Investors.
22 They abut and govern, to a large extent, the land that
23 we're intending to build the project. And so their
24 preferences, their needs, were certainly taken into
25 account, and that's what drove our selection of a

1 preferred route for each section.

2 The other player, stakeholder, in this mix was
3 the Pima County. Mr. Beck will cover that Pima County
4 had strong feelings about the northern piece and where we
5 were routing the northern piece. Pima County's
6 preference was for the route on the right, while TAA
7 preferred this route here. We were able to work through
8 that with Pima County, and there will be a condition that
9 will be proposed in our proposed CEC that addresses Pima
10 County's concerns. So those were the three main players
11 in terms of that drove the route selection.

12 You'll hear testimony from Ms. Darling on the
13 environmental impacts, the biological impacts. There are
14 some listed species habitat in this area, but the impacts
15 are minimal. Minimal visual impacts. No impacts on
16 recreation.

17 And, as Ms. Rucker will testify, the land use
18 impacts are fairly limited as well and we think in line
19 with what the various development plans are for South
20 Wilmot and TAA.

21 So we tried to do our best to address their
22 concerns and still get this project built, which will
23 allow Tucson not only to bring online this 100 megawatts
24 of solar, but to also have the ability to better address
25 and be prepared for growth in the area which we think is

1 coming, not only through South Wilmot's development but
2 also if the Sonoran Corridor comes to pass, as Mr. Beck
3 will testify, and other planned developments in the area.

4 The CEC will request our preferred route as
5 Northern 2. We will be asking for a 100-foot
6 right-of-way and a 1,000-foot corridor. That large
7 corridor size is in line with an existing project in
8 which it was already granted a 1,000-foot corridor, so
9 that was the reason that we're asking for a 1,000-foot in
10 that area, that -- but we'll be prepared to answer your
11 questions about whether we really need 1,000 feet.

12 The southern piece that's a 100-foot
13 right-of-way and a 500-foot corridor, I think that's in
14 line with generally many of the cases that we've dealt
15 with, unless we're dealing with the kind of residential
16 concerns that I don't think are really present in this
17 case. But, again, we'll be prepared to testify and let
18 you know why we're asking for a corridor of that width
19 and whether that's adequate for the project needs.

20 We will have a Google Earth Flyover simulation
21 that Mr. Beck will narrate. I think that will help
22 inform you about the route tour and give you an
23 understanding of what the project area is like, what
24 you'll see as we drive the routes if you vote and elect
25 to take a route tour.

1 We have added some new faces to our witness
2 panel. You're familiar with seeing Ed Beck and Renee
3 Darling. In addition, Eric Raatz and Jasmine Rucker will
4 also make up our witness panel and will cover some of the
5 key testimony.

6 You should have the iPads before you. I think
7 they are loaded with all the exhibits. I'm happy to kind
8 of give you a refresher on how to access the exhibits on
9 the iPad, but you're probably old hands at that by now.

10 And, in addition, we have the placemat before
11 you that has some of the KOPs, the key observation point
12 simulations on the back, and then shows the basic project
13 map on the reverse side with some of the costs and an
14 illustration of the structures we propose to use.

15 I think that's enough of an overview of the
16 case. It's -- as I was thinking about it, it's a gen-tie
17 project. We're tying in a new solar project as we had
18 promised our customers. It's in line with the goals of
19 our company to bring more and more renewables on the
20 system.

21 It's being made possible by Case 177, the RICE
22 generation, that will allow us to deal with not only the
23 intermittency from this and all the solar and wind that's
24 coming on the system, but it's an important aspect of
25 this case, I think, that the northern piece is a

1 reconfiguration of existing lines with a new substation
2 that will improve reliability and will allow the company
3 to serve growth in the area.

4 That's all I have. Thank you.

5 CHMN. CHENAL: Thank you very much.

6 Member Woodall.

7 MEMBER WOODALL: I would bet you everyone knew
8 I was going to ask this question, so after the case is
9 over, tell me why you are not siting the Sonoran
10 Substation as a part of this application.

11 And, I mean, that's kind of a legal question,
12 or at least I'm anticipating your answer will be legal,
13 so ...

14 MR. DERSTINE: The answer to your question,
15 Mr. Chairman, Member Woodall, is that the siting statute,
16 40-360, in its definitions, covers switchyards but does
17 not cover substations.

18 And so, certainly, one of the aspects of this
19 project and one of the reasons that we want to give you
20 an overview of what's being built and what are the
21 components of the project is to include that substation
22 and tell you what's happening there. But the actual
23 siting and what governs the authorization to build a
24 substation is governed in this case by I think it's City
25 of Tucson Special Exception Land Use Permit.

1 Those local statutes, for whatever the
2 foresight or lack of foresight in drafting of the siting
3 statute, is to cover switchyards and transmission lines,
4 as those are defined, but not substations. So we are not
5 including the substation in our application, but we're
6 happy to tell you and answer any questions you have about
7 it.

8 MEMBER WOODALL: I have another question.
9 Where is the cost of the switchyard in the application
10 and tell me what exhibit I can look at that will show me
11 the boundaries of the Wilmot Energy Center.

12 And that might be better for --

13 MR. DERSTINE: With your permission, I'm going
14 to refer that to Mr. Beck during his testimony, but we'll
15 make sure we address it.

16 MEMBER WOODALL: Thank you.

17 CHMN. CHENAL: Member Haenichen.

18 MEMBER HAENICHEN: Excuse me. I've got a frog
19 in my throat.

20 You mentioned the Wilmot Energy Center had a
21 30-megawatt battery storage. Tell us a little bit about
22 how that part of that facility interacts with the RICE.

23 MR. DERSTINE: Well, so I think, Member
24 Haenichen, you will recall that one of the things that
25 was talked about and you heard a fair amount of testimony

1 about during Case 177, the RICE case, was the idea that
2 battery storage would be a solution and negate the need
3 for this fast-ramping natural gas generation that we were
4 proposing through RICE.

5 I think the testimony that you heard from
6 Mr. Beck and Mr. Spencer at the time was batteries are
7 great, battery technology is improving, costs are coming
8 down. But at this time, the battery, even the four-hour
9 30-megawatt battery that we're utilizing in the Wilmot
10 Energy Center, will not handle the voltage regulation as
11 well as all of the fast-ramping capability that's needed
12 not only to address the intermittency that we're facing
13 today, but as TEP builds out and seeks to achieve its
14 goal of 30 percent of local generation by 2030, that it
15 needs a larger generation resource that can be used
16 efficiently but that can ramp effectively.

17 So right now, what's being built at Wilmot is a
18 four-hour battery. In the future, there may be and
19 there's likely to be batteries that can cost effectively
20 be in the 50-megawatt or even larger capacity. But in
21 terms of the duration of the intermittency, a four-hour
22 battery would not do it in many cases. And so the
23 technology is improving, but this battery in no way
24 negates the need for the RICE generation we presented to
25 you in that case.

1 MEMBER HAENICHEN: Well, perhaps this question
2 would be better addressed to Mr. Beck, but if you're
3 saying -- if I hear you saying that the battery is not
4 cost effective, why do you have it at all?

5 MR. DERSTINE: I will let Mr. Beck address that
6 dead on. But, I mean, I think what we're finding is that
7 the company is committed to using the best technologies
8 available that are cost effective.

9 Right now, this -- NextEra responded to an RFP
10 from TEP and presented a proposal for a 100-megawatt
11 solar array plus a storage component. The storage
12 component does allow -- give you some generation
13 flexibility. The battery energy -- the battery will come
14 from the project, so we'll be storing energy during the
15 off peak and then utilizing the battery during peak
16 occasions. But, again, it's a four-hour, 30-megawatt
17 battery. And so I think from a cost standpoint -- and,
18 again, I'll let Mr. Beck correct me where I'm wrong and
19 fill in the things that I'm missing.

20 But for now, I think that what
21 NextEra presented was an attractive proposal at the time.
22 I think it was one of the lowest cost solar projects that
23 had been proposed, and TEP signed the contract for that.

24 But, again, it's not a solution and was part of
25 the overall proposal for the project.

1 MEMBER HAENICHEN: Thank you.

2 CHMN. CHENAL: Very good. And I think what
3 will happen during this hearing is there probably will be
4 some questions on those kind of issues. Not to be
5 nitpicky, but I think it's just an excellent opportunity
6 for the Committee to kind of learn as we move into the
7 renewable technology and where the state of the
8 technology really is and what's to come. So I warn you
9 right now, there are probably going to be a lot of
10 questions of this nature; and I think it's a good thing,
11 because it just helps us to learn better.

12 Okay. Anything further from Mr. Derstine or
13 the applicant?

14 (No response.)

15 CHMN. CHENAL: Mr. Robertson, we'd love to hear
16 your comments.

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

18 As part of his opening statement, Mr. Derstine
19 referred to a purpose of the project being able to better
20 serve future growth within the area of the project.

21 Excuse me. My allergies are catching up with
22 me.

23 I'd like to use that part of his opening
24 statement as my segue for talking a little bit about
25 South Wilmot and about the Verano project and how the

1 project now before you is very pertinent to the future
2 development and growth of the Verano project area.

3 The Verano project, including the Wilmot Energy
4 Center property, was conceived by Diamond Ventures, Inc.,
5 which is a well-known and well-established master land
6 developer here in Pima County, who has also done work in
7 Maricopa County and Pinal County in the past a number of
8 years ago, and they originally acquired the entirety --

9 Patrick, if we could pull up Exhibit SW-1.

10 They originally acquired the entirety of the
11 property shown in the screen on your right with the idea
12 of developing the Verano project because of its location
13 to a number of things that were on the drawing board at
14 that particular point in time and some things that were
15 contemplated thereafter.

16 And so, to position themselves in connection
17 with future development -- excuse me just a second. My
18 apologies.

19 So to position themselves, they looked into
20 what the basic utility services would be and determined
21 that electric service would be provided by Tucson
22 Electric Power Company; future domestic water service
23 will be provided by Red Rock Utilities, which was a
24 utility formed by Diamond Ventures that currently
25 operates in Pima County and has a service area in

1 existence to serve this particular area of the Verano
2 project property; and wastewater service would be
3 provided by Pima County.

4 They have now obtained a combination of zoning
5 for mixed use, including residential, commercial, and
6 some industrial uses.

7 The Verano property, to give you a frame of
8 reference from the standpoint of some landmarks we will
9 be hearing about during the course of the hearing, is
10 bounded on the east by Wilmot Road. On the north, it's
11 approximately a mile south of the Old Vail Connection
12 Road extension. On the west, it's bounded by Alvernon
13 Road if Alvernon Road were extended this far south, which
14 it will be at some future point. And then in this part
15 of the property, roughly one-third, moving from the
16 western boundary in an easterly direction, we have Swan
17 Road, which is the alignment for Southern 1 Preferred
18 Alternative as identified by Tucson Electric Power
19 Company.

20 In addition, the Verano project acreage, or the
21 northwest corner of it, to be more precise, is
22 approximately 1 mile south of the contemplated
23 interconnection point between the Aerospace Parkway,
24 which is up here north of this area and south of the
25 Tucson Airport and Raytheon area, and the Sonoran

1 Corridor.

2 The Sonoran Corridor, if you will take a look
3 at the placemat map in front of you and take a look at
4 the legend, on the second column to the right, the second
5 one down indicates the Pima County Preferred Sonoran
6 Corridor of 2,000 feet. And you can see that with a blue
7 hashmark at the top of the placemat map in front of you.

8 What the map does not show is as that Sonoran
9 Corridor moves to the left-hand side or to the west and
10 passes beyond Swan Road, as it would continue in a
11 westerly direction, it takes a turn to the south, and it
12 comes down along the Alvernon Road alignment. So it
13 would, at some future date, if approved, be on the
14 western boundary of the Verano project. And the point of
15 interconnection between the Aerospace Parkway and Sonoran
16 Corridor would be approximately a mile northwest of the
17 northwest corner of the Verano acreage.

18 So from the perspective of South Wilmot, we
19 feel that the development potential for this area is
20 excellent. And Mr. Beck will be talking during the
21 course of the hearing these next few days about how, if
22 the project before you is approved in the future, TEP
23 would go about providing electric service to the Verano
24 property acreage.

25 With respect to the two alternatives that

1 relate to the southern portion of the project which would
2 be coming out of the Sonoran Substation and heading south
3 to the Cisne Switchyard, as I indicated during my earlier
4 comments, South Wilmot is supportive of the Southern 1
5 Preferred route, and we strongly oppose the Southern 2
6 Alternative.

7 The Southern 1 Preferred is only 1.86 miles or
8 1.18 miles shorter than the Southern 2 Alternative. It
9 would be directly adjacent to an existing transportation
10 corridor in the form of Swan Road, and it would not
11 intrude more than 100 feet into the Verano project
12 acreage located directly adjacent to the west side of
13 Swan Road. Whereas, the Southern 2 Alternative is 3.04
14 miles in length and would transect the Verano project in
15 both a north-to-south and an east-to-west direction over
16 future development areas which are not adjacent to
17 section lines or existing transportation corridors.

18 Accordingly, for those reasons, as I indicated
19 a moment ago, Southwest is supportive of Southern 1
20 Preferred Alternative. We strongly oppose the Southern 2
21 Alternative. And we have no position with respect to
22 either of the northern alternatives that have been
23 proposed by TEP.

24 Mr. Chairman and Members of the Committee, that
25 concludes my opening remarks.

1 CHMN. CHENAL: Thank you, Mr. Robertson.

2 Any questions from the Committee?

3 (No response.)

4 CHMN. CHENAL: Okay. Mr. Schmaltz, are you
5 ready to provide an opening statement?

6 MR. SCHMALTZ: I am. Thank you, Mr. Chair,
7 Members of the Committee.

8 Tucson Airport Authority, of course, is
9 interested in this because the substation is on our
10 property, and both northern lines -- proposed northern
11 lines are also on our property or proposed to be on our
12 property.

13 We're supportive of the application. We're
14 also supportive of the preferred Northern 2 that has been
15 as part of the discussion between Tucson Airport
16 Authority and TEP.

17 Tucson Airport Authority holds -- I think is
18 the largest landowner of property south of the airport to
19 the north and northwest of this location. Tucson Airport
20 Authority has multiple -- I think thousands of acres
21 either under ownership or as a lease.

22 To protect the airport itself, the ongoing
23 operations of the airport, as well as nonaeronautical
24 development, it's a primarily industrial business park
25 compatible uses. It's really about compatible uses in

1 proximity to the airport.

2 Tucson Airport Authority absolutely views this
3 as a benefit to the long-term viability of the airport
4 and support of the ongoing efforts of the airport.

5 That's why we have been supportive of the location of the
6 substation on our property as well as supportive of this
7 application.

8 We view it as certainly supportive of the
9 airport's long-term plans for the area. We plan to offer
10 as part of our testimony and evidence is a discussion
11 about the Tucson Airport Authority's master plan and its
12 policy and adopted policies as it relates to the
13 properties in this area and why our preferred -- the
14 preferred route, Northern 2, the red line, is of benefit
15 to the airport's master plan for this area.

16 And we don't have any preference with regard to
17 the southern routes, but you'll hear from our witness and
18 our limited exhibits why the master plan drives sort of
19 what our perspective is with regard to the preferred
20 northern route.

21 I'm happy to answer any questions that you
22 might have.

23 CHMN. CHENAL: Any questions from the
24 Committee?

25 (No response.)

1 CHMN. CHENAL: All right, Mr. Schmaltz. Thanks
2 very much.

3 Very excellent opening statements. It puts
4 this in perspective. I hope at some point, we'll have a
5 map that will kind of include a larger area that will
6 touch on some of the aspects that Mr. Schmaltz, you
7 talked about, and Mr. Robertson and the larger scale than
8 we're seeing up there.

9 MR. SCHMALTZ: Yes, Mr. Chair.

10 CHMN. CHENAL: This would be the time when we
11 just start with turning it over to the applicant, and
12 I'll swear Mr. Beck in in a moment.

13 But maybe we should talk about the tour, at
14 least to discuss it. As we've said in the past, if one
15 person wants to go on a tour, we'll have it. And I know
16 there's one person that wants to have it and probably a
17 few more. So let's assume we're going to have --

18 MEMBER WOODALL: Mr. Chairman, know thyself.

19 CHMN. CHENAL: I want the tour. And that would
20 be at 9:00 tomorrow.

21 Mr. Beck, you will testify about this in a
22 moment. Let me swear you in first before you give any
23 testimony on it. But that's 9:00 tomorrow morning, and I
24 think there's an agenda here that kind of lays that out.

25 It looks like it would be from 9:00 to about

1 11:30 is the projected time. And then we'd have lunch
2 and then resume the hearing in the afternoon.

3 So ready to turn it over, Mr. Derstine, to you
4 if you're ready to present your case in chief.

5 MR. DERSTINE: I am.

6 CHMN. CHENAL: Okay.

7 MR. DERSTINE: Would your preference be that
8 Mr. Beck walk through the proposed route tour or start
9 with the Google Flyover that might inform --

10 CHMN. CHENAL: Whatever your preference is.
11 Member Woodall.

12 MEMBER WOODALL: If I could, rather than
13 interrupt you in mid-sentence, as I'm always so
14 cheerfully pleased to do, Mr. Beck, I'm going to let you
15 know that I'm going to ask you for a brief overview of
16 the interconnection process as it relates to large
17 generators interconnection, and I'm also going to ask you
18 for a breakout of who's paying for what as it relates to
19 this particular project. If you could -- I think that
20 will be helpful for our record.

21 And the second thing I'm going to be focusing
22 on is the EMF studies and why there was a study only of
23 single circuit and not of the three double circuits that
24 are going to be up there. And -- so you can be prepared.
25 And I also think it might be helpful to have the System

1 Impact Study that was alluded to in I think it's
2 Mr. Raatz' testimony. That might be helpful to have that
3 as part of the record.

4 So having interrupted you before you start,
5 that's all I have right now. Thank you.

6 CHMN. CHENAL: All right. Mr. Beck, do you
7 prefer an oath or an affirmation, sir?

8 MR. BECK: Oath, please.

9 (Edmond Beck was sworn by the Chairman.)

10 CHMN. CHENAL: Mr. Derstine or Ms. DeCorse,
11 whoever is going to be examining Mr. Beck.

12 And if you want to proceed with a flyover and
13 then a route discussion, that's fine.

14 MR. DERSTINE: I think my suggestion would be
15 for Mr. Beck to narrate the flyover and then that
16 probably will help you with at least a better
17 understanding of the project area and what you'll see on
18 the route tour, and then we can go into his direct
19 testimony.

20 CHMN. CHENAL: All right. Fine.

21 MR. BECK: Okay. To provide just a little bit
22 of context before we actually go into the flyover, on the
23 left-hand screen, we have a larger map of the Tucson area
24 to give a little bit of context of our project, which is
25 down in the pink circle roughly in the center of this

1 map.

2 The DoubleTree hotel is identified with the
3 star here just to show you where you are at relative to
4 the project.

5 I will talk about this a little bit more later,
6 but just -- this map is zooming in a little bit showing
7 the study areas that, as I say, I will talk about more
8 later. But you can see the two alternatives on the
9 northern portion of our project and the two alternatives
10 on the southern portion. And we will sequentially go
11 through those in the Google Flyover.

12 And, again, here is just an even closer zoom of
13 that same area to the final study area circle that we
14 studied.

15 So with that -- yeah, let's start the video.

16

17

EDMOND BECK,

18 called as a witness on behalf of Applicant, having been
19 previously sworn by the Chairman to speak the truth and
20 nothing but the truth, was examined and testified as
21 follows:

22

23

DIRECT EXAMINATION

24

BY MR. DERSTINE:

25

Q. So, Mr. Beck, this is a video that Mr. Dubberly

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1 will fly. But if there's a moment where you -- we need
2 to go live, do we have the ability to do that as well?

3 A. We do have the ability, I believe -- Patrick,
4 yes -- to bring up the full Google Earth, and he can do
5 it manually. This is a video recording of the Google
6 Earth Flyover that was created.

7 We are continually trying to refine our Google
8 process. You will see that portions of this are a little
9 bit fast, so we will pause to be able to explain some
10 things. And hopefully, over time, we'll get a much
11 better fine-tuned recording.

12 Q. Can you just touch on briefly how this was
13 prepared and how the structures and the landscape and
14 that sort of thing are created to give the Committee an
15 understanding of what it would look like to fly over the
16 project.

17 A. Yes. In my direct testimony, I have a
18 narrative of that. But, basically, we use the Google
19 Earth Professional product to create these flyovers. And
20 with Google Earth, they have the underlying aerial
21 photography that we use as our backdrop. Our engineering
22 group will create a model within PLS-CADD, the software
23 that they use. We'll bring it over to Google, and then
24 specifically, Mr. Dubberly, over at the end of the table
25 there, goes through and creates the model in Google

1 Earth.

2 So, basically, he will use either the model
3 that's imported or use SketchUp to create structures.
4 He'll place those on the Google map. He'll put the
5 conductors on there to the extent they weren't imported.
6 And then you set a height and a location of the eyepiece
7 of a camera, and that creates the flyover. It's similar
8 to if you were in a plane flying over the terrain using
9 the Google Earth aerial photos as the backdrop.

10 So one issue is depending on how up to date or
11 out of date those aerial photos are, it may or may not
12 match exactly what's in the field.

13 This area, it's pretty rural. There haven't
14 been a lot of changes, so it's pretty recent.

15 Patrick.

16 So, again, context, we're flying into the study
17 area there. We're going to start with the green line,
18 which is the Northern Alternative 1. Again, just an
19 overview of the project.

20 So the green one that is depicted on here is
21 the 1,000-foot-wide corridor that we are requesting,
22 which I will talk more about in further testimony.

23 The starting point for the project is the
24 confluence of three lines that come down from the south.
25 One turns west; two turn east. But that is the starting

1 point of both Alternative 1 and Alternative 2, which
2 you'll see later. But, again, this screen represents the
3 corridor.

4 This is Old Vail Road.

5 CHMN. CHENAL: We're flying south there?

6 MR. BECK: Yes. So we're headed in a southerly
7 direction. As soon as we start the video back up, we'll
8 be going south.

9 This here is a view from that corner looking to
10 the west. So if you can picture from the right, we've
11 got three lines coming down. You'll see in a further
12 picture that there's a triple-circuit structure that's to
13 the north, and they come down. The one line hits the far
14 side of this double-circuit structure and heads in a
15 westerly direction, so you're looking in a slightly
16 north-primarily west direction here along Old Vail Road.
17 It's looking this way.

18 So that's the existing line which is currently
19 showing in yellow on the left-hand screen.

20 The other two circuits are actually one on the
21 eastern side of the double circuit that's on -- to the
22 west, and the other circuit is on a one-circuit tower,
23 and those two circuits are heading back in an easterly
24 direction along the yellow, again, shown on this
25 left-hand screen.

1 This is that same location, but looking north.
2 So the structure that was in the foreground of the
3 picture you just saw is the one on the left-hand edge of
4 this photo looking north along Swan Road alignment.
5 There's the triple-circuit structure that's to the north.
6 That triple circuit continues northerly and then heads
7 easterly to get to our Irvington Substation.

8 This is the same location looking in an
9 easterly direction.

10 It's hard to make out, but there is a
11 double-circuit lattice structure in that picture taking
12 the two circuits that head east along Old Vail Road.

13 So we are currently heading in a southerly
14 direction along the east side of Swan Road. We get to
15 one of our key observation points which is in our
16 application. This is the before photo. This is right
17 here. I believe that's No. 3. You can see in the
18 distance, the substation is shown back in there. That's
19 in the model.

20 And then here are the -- this is the photo sim
21 with the lines in place.

22 As Mr. Derstine had mentioned, it's not six
23 circuits we're bringing in, it's three. We're breaking
24 into three circuits, but it results in six circuits
25 between the substation and the point where we break in,

1 which I think we'll demonstrate a little more in further
2 testimony.

3 So you're looking kind of in an easterly
4 direction slightly south and east of the lines going over
5 to Sonoran from the Swan Road alignment.

6 This is as we're headed south and then we're
7 going to turn to the east, a 90-degree bend, which is
8 along the north -- northern edge of the Sonoran
9 Substation location.

10 Three adjacent double-circuit structures
11 bringing in six circuits of wire. And that's the end of
12 Alternative No. 1.

13 Now we'll go down Northern 2, which again comes
14 from the corner of Swan and Old Vail Road, heads east
15 until it is just past the Sonoran Substation location,
16 and then heads south across the TAA property.

17 Here again, here is a -- this is a picture
18 looking in that easterly direction. You can see the
19 existing double-circuits tower in the distance. And this
20 is what we call our Key Observation Point No. 2 that's in
21 the application. And that second one was -- had the
22 structures in it. I didn't point that out.

23 So here, we're headed east along the southern
24 side of East Old Vail Connection Road. This would be two
25 sets of double-circuit structures up to this point,

1 joining with another double-circuit structure coming down
2 this way, which creates the three double-circuit
3 structures going south.

4 Q. BY MR. DERSTINE: Mr. Beck, can I stop you
5 there for a minute and have you walk me through and
6 eliminate my confusion.

7 So in terms of what's coming in from the east,
8 can you back up and walk us through what lines are coming
9 in from the east along this view?

10 A. Yes.

11 So, again, on the left-hand screen on this map,
12 coming from the north or the top of that map, headed down
13 along Swan to Old Vail Road, that is a triple-circuit set
14 of towers with three circuits of wire. One of those
15 circuits heads west when it hits Old Vail Road, and it
16 goes to TEP South Substation.

17 Two of the circuits head to the east, one going
18 to Robert Bills and the other one going to -- Irvington
19 or Vail? Vail. It goes on east to Vail Substation.

20 CHMN. CHENAL: Those are existing?

21 MR. BECK: Those are existing, yes.

22 So as part of this project, what we intend to
23 do is break all three of those circuits, break into those
24 circuits, bring them down to the new substation called
25 Sonoran, which I'll get into in later testimony about the

1 value of that and why we're doing it. It's an additional
2 avenue that we're taking as part of this project to
3 improve load-serving capability for TEP. So it's not
4 directly related to this interconnection, but it's a part
5 of the interconnection; and vice versa, the
6 interconnection supports this project.

7 So we're going to break those lines. You'll
8 see that we're bringing a circuit -- the one that goes to
9 South Substation today is going to go both in and out of
10 Sonoran Substation. So, in other words, you'll have the
11 line coming down from Irvington, comes over, goes into
12 Sonoran, comes back out, and then continues on to South
13 to make that loop.

14 Likewise, with the other two circuits, we'll
15 break them, bring them into Sonoran and back out so that
16 they're connected to both directions of the existing
17 lines.

18 CHMN. CHENAL: Member Noland.

19 MEMBER NOLAND: Mr. Chairman, Mr. Beck, the
20 line that you're proposing along the south side of Old
21 Vail Road, is it in the corridor that was approved for
22 Southline, this portion right here?

23 MR. BECK: Yes. Mr. Chairman, Member Noland,
24 it will be -- part of it overlaps, and it is contiguous
25 with or adjacent to our Southline alignment. And in some

1 of our -- in this map here, you'll see we show the
2 Southline corridor --

3 Is that right, Patrick? Is that the Southline?

4 So the purple is showing the Southline
5 corridor, and then the reddish background color is what
6 TEP is requesting for our corridor. So we will be
7 coordinating very closely with Southline on this project.
8 And in fact, TEP is in discussion with Southline to
9 actually be a participant in the Southline project and
10 likely will be a part owner in that project.

11 CHMN. CHENAL: I just have a question. When
12 you have collocated corridors like this, is it like
13 whoever gets there firstest with the mostest, you know,
14 has an advantage?

15 MR. BECK: I think that is one possibility.
16 But we work very closely with both Western Area Power,
17 who actually will be building this segment of line, as
18 well as the Southline group, which is primarily Hunt out
19 of Texas. So we will coordinate that so that we're not
20 stepping on each other's toes as we go through here.

21 Q. BY MR. DERSTINE: Mr. Beck, given the slide on
22 the right showing the Southline Corridor and then the
23 corridor in red that we're asking for in this
24 application -- do I have that right?

25 A. Correct. Yes.

1 Q. So the distinction -- we're asking for a
2 1,000-foot corridor for this case. Is that to
3 accommodate and either be on the north or the south side
4 of the road there?

5 A. Yes. It would give us some flexibility to
6 place our structures either on the north side of the road
7 or other the southern side of the Old Vail Road
8 alignment.

9 Q. And do we have a preference at this time?

10 A. Our preference would be on the south side. It
11 would be adjacent to the Southline alignment.

12 And likely, in the end, there would be the TEP
13 structures and then the Southline structures or vice
14 versa, whichever. We would want to try to minimize
15 crossings. So likely -- we're still looking at the
16 design of that, so we would be coordinating very closely.

17 CHMN. CHENAL: And just to complicate this even
18 more, there's the Pima County Corridor -- and I know
19 there's a condition that you're proposing -- but that
20 could require these lines to be moved at some point in
21 the future; is that correct?

22 MR. BECK: Mr. Chairman, that is correct, and
23 that is the concern that I will discuss later that Pima
24 County has. Pima County has a strong preference for this
25 particular alignment for the ultimate freeway

1 interconnection, and one of their concerns was that by
2 building these lines here, that's a cost that ADOT would
3 ultimately have to pay for if we had preexisting rights.

4 And so, as you'll hear later in testimony,
5 TEP's proposal back to Pima County was that we would put
6 a condition in our case that TEP would agree to pay for
7 that relocation should this alignment interfere with the
8 ADOT roadway so that it would not become a hurdle that
9 ADOT would have to meet relative to this alignment.

10 CHMN. CHENAL: And that would require another
11 CEC application, would it not?

12 MR. BECK: We had not looked that far ahead,
13 but I believe, yes, it would, because it would likely be
14 more than three spans of wire.

15 CHMN. CHENAL: Assuming there would be three
16 spans.

17 Member Woodall.

18 MEMBER WOODALL: So taking away that the
19 engineers would make sure that there's not going to be
20 any interfering with respect to the transmission lines
21 themselves, would it be your expectation that ADOT would
22 coordinate closely with the utilities to ensure that
23 there would be no need for you to move your lines? Isn't
24 that typical and customary in such matters?

25 MR. BECK: Mr. Chairman, Member Woodall, yes,

1 that is correct. And that is one reason that TEP is
2 willing to take on the -- identify the ability to pay for
3 relocating this line in the future because our
4 expectation is it won't become an issue as the highway is
5 developed.

6 MEMBER WOODALL: And could you describe -- and
7 this might be another witness's purview, but could you
8 describe where ADOT's at with respect to the
9 environmental studies and how long they're expected to
10 last?

11 MR. BECK: If it is okay with --

12 MEMBER WOODALL: We can defer. That's fine.

13 MR. BECK: -- with the Committee, I have some
14 testimony in the predefined testimony that will talk
15 about that.

16 CHMN. CHENAL: That's fine.

17 Q. BY MR. DERSTINE: So just to close down the
18 nest of lines coming in and out of the Sonoran
19 Substation, the three that are coming in coming from
20 Irvington, what we're asking for and what will be in this
21 area will ultimately be three lines in. We're breaking
22 those lines, extending them into the new Sonoran
23 Substation, and then those three lines will be coming
24 out, and that accounts for three double-circuit
25 structures?

1 A. That is correct. So, to be very specific, in
2 this east-west portion along Old Vail Road, there are two
3 double-circuit structures shown up to the point where we
4 turn south, and that's where we pick up the third
5 double-circuit because it would break generally right up
6 in here.

7 Q. Thank you.

8 A. Currently headed east, but we're shortly going
9 to make a right turn and head south away from Old Vail
10 Road.

11 Again, we just crossed where there was purple.
12 That is showing where the Southline corridor is. And the
13 reddish background is the TEP-proposed 1,000-foot
14 corridor.

15 This is another one of our key observation
16 points just north and east of the Sonoran Substation.
17 Actually, this is looking to the east from Swan Road. So
18 you can see in the distance, here's the substation.
19 Earlier, you saw poles kind of in the foreground of this
20 particular photo.

21 When we do the after here, they popped in, but
22 they're off in the distance because it is away from Swan
23 Road. And this goes, to a large degree, to the point
24 that TAA has with this case is they have a preference to
25 keep the Swan Road alignment open or clear for more

1 development versus the Old Vail Road they saw. Swan Road
2 is having some more value to them for development in the
3 future.

4 And, likewise, I believe the position of South
5 Wilmot Land, LLC, is that the further away from Swan
6 Road, the better, at least for this portion of the
7 project, although I don't think they took a real strong
8 position on that.

9 CHMN. CHENAL: Member Noland.

10 MEMBER NOLAND: Mr. Beck, just to be sure I'm
11 clear, it's a 1,000-foot right-of-way that you're asking
12 for in that traveling south. But with the three lines,
13 you're actually asking for 300-foot right-of-way; is that
14 correct?

15 MR. BECK: Mr. Chairman, Member Noland, we are
16 asking for a 1,000-foot-wide corridor --

17 MEMBER NOLAND: Right.

18 MR. BECK: -- in which, on that north-south
19 portion, we would have three 100-foot adjacent
20 right-of-ways. So an overall right-of-way of 300 foot
21 out of that 1,000-foot corridor.

22 MEMBER NOLAND: Okay. Thank you.

23 MR. BECK: Now we're going to go to Alternative
24 Southern 1. Oh, no. We haven't quite finished
25 Northern 2. Sorry.

1 Here's where we turn back to the west to come
2 into the substation on the north side of the substation.

3 Now we're going to Southern 1. So the starting
4 point would be Sonoran Substation coming down and to the
5 southwest over to the Swan Road alignment. And this
6 portion of the project, we're asking for a 500-foot-wide
7 corridor and would utilize a 100-foot right-of-way within
8 that corridor.

9 The way we have planned it, we are on the east
10 side of Swan Road as we get over to Swan Road. And the
11 reason being that we would have control of that property
12 as part of the Sonoran Substation property. And so we
13 can set back away from the road right-of-way without any
14 problem.

15 This is another one of our key observation
16 points. This is an existing Western Area Power 115kV
17 line. This is as it is today. And then here is the
18 simulation with the structures showing.

19 So, as I mentioned, we're on the property. We
20 extend our property up to this corner. And at this
21 point, there's a bunch of residential properties along
22 the east side of Swan Road as well as an existing
23 distribution line that goes along the edge of the road
24 right-of-way.

25 In order to not have to rebuild that

1 distribution line as well as not encroach further upon
2 all these residential properties, we're intending to
3 cross over at the southern edge of the property line onto
4 the west side of Swan Road.

5 And, again, we're headed in a southerly
6 direction.

7 That yellow in the background or -- yeah, the
8 background of that picture is generally the WEC, Wilmot
9 Energy Center, property. That's their land.

10 CHMN. CHENAL: Member Woodall.

11 MEMBER WOODALL: So the depiction of the
12 proposed Cisne Switchyard there, is that actual or is
13 that just -- I'm imagining that they don't have the
14 panels out there yet. So do you actually have a fixed
15 location for that switchyard?

16 MR. BECK: Member Woodall, we're pretty close
17 on the location. It may be tweaked slightly, but it's on
18 Wilmot Energy Center property.

19 MEMBER WOODALL: Yeah, I understand.

20 MR. BECK: Pretty much at the location as shown
21 on the maps.

22 MEMBER WOODALL: Thank you. That was my
23 question. Thank you, sir.

24 MR. BECK: Swan Road comes down and basically
25 ends in a cul-de-sac just north of the Wilmot Energy

1 Center property. They will be bringing an access road
2 down what you're going to see in this observation -- from
3 this observation point. This is KOP No. 10 in the
4 application.

5 So we're looking in at southerly direction at
6 the end of the cul-de-sac.

7 And then once the line is built, you'll see a
8 pole here, and you see this is the access road going into
9 both Cisne Substation as well as to the Wilmot Energy
10 Center site. That will be one of their access points.

11 We cross into the Wilmot Energy Center
12 property, head a little bit to the east, and over to
13 where the switchyard is located.

14 Now we'll move on to the Southern 2 alignment.
15 Again, starting from Sonoran Substation, we'll head in a
16 westerly -- easterly direction, excuse me, and then turn
17 to the south, come along the edge of the residential, but
18 also along the edge of South Wilmot, LLC, land that is to
19 the east side of our proposed line, and then back to
20 Wilmot Energy Center.

21 And, again, for the southern alternatives, we
22 are looking at a 500-foot-wide proposed corridor. Here,
23 again, is the WAPA line shown in the existing.

24 And one of the issues we've had as we created
25 this video is a few of our key observation points went by

1 so quick you don't even see them. So we do have on the
2 second screen, again, some of the visuals so you can see
3 the before and the after.

4 Q. BY MR. DERSTINE: And, Mr. Beck, for this
5 southern portion of the project, this is the gen-tie
6 portion, and this is one single-circuit 138kv line?

7 A. That's correct. It would be a single-circuit
8 138kV line attached to double-circuit-capable poles with
9 the understanding that we're only requesting a
10 certificate for a single circuit. And if and when we
11 ever needed a second would require another CEC process.

12 Q. And that's for Southern 1 or Southern 2?

13 A. Correct.

14 We're heading in an easterly direction coming
15 out of the substation. We get to the edge of where
16 residential properties are to the south, and we turn to
17 the south. As you can see, again, we've got -- the
18 Southline corridor is indicated by these two purple
19 lines. And at this point here, the Southline alignment
20 actually shifts back and heads east, whereas we're
21 continuing to the south.

22 Originally, we were looking at our corridor
23 being on the other edge, more adjacent to the easterly
24 edge of the Southline. And during our initial design
25 process, we shifted it over so that we're at least not up

1 and against their eastern edge of the Southline corridor.

2 Until the Southline is built, the existing WAPA
3 line, we would have a crossing there. Here again, we're
4 just east but adjacent to a bunch of residential
5 properties as we head south.

6 And, again, the property we would be on here is
7 South Wilmot, LLC, property, where they have plans for a
8 lot of mixed-use development. And at this point, I don't
9 think it's defined what exactly would be on that
10 particular property, but it could be anything from
11 commercial to residential.

12 Here is where we turn to the west. We come
13 across -- again, this is South Wilmot, LLC, property
14 until you see this yellowish-greenish color. That's the
15 edge of the Wilmot Energy Center property. At a point,
16 we'll turn and diagonal down to get to the proposed Cisne
17 Switchyard.

18 And, again, this is the end of the cul-de-sac.
19 This is the before picture. Here it is with the
20 representation of the access road and then the structures
21 there off a little further off into the distance because
22 they're a little bit to the east. And then we'll end up
23 at this Cisne Switchyard.

24 So, hopefully, that gives you a little bit of
25 an overview of what the project entails. And as I said,

1 there will be more testimony regarding some of the
2 specific aspects, why we have what we call a northern and
3 a southern portion, why there is a difference. But the
4 intent was just to -- for the -- basically, an overview
5 and hopefully to help your decision process as you look
6 at a potential route tour.

7 CHMN. CHENAL: All right. I think, speaking
8 just for myself, it took me to see this new presentation
9 a few minutes before I became more comfortable. I'd like
10 to see the Northern Route 1 again.

11 MR. BECK: Sure.

12 CHMN. CHENAL: Now that I see how this is set
13 up, I think I'll appreciate it a lot of more.

14 MR. BECK: Absolutely.

15 And I believe we did get this onto the iPad, so
16 you will have an opportunity to look at it on your own
17 later if the need comes up.

18 MR. DERSTINE: I think we're still efforting
19 the transfer of this file onto the iPads, but we'll do
20 our best to get it on there.

21 MR. BECK: Sorry. The intent would be to have
22 it on your iPads soon.

23 So, again, this is the intersection of Swan
24 Road and Old Vail Connection Road, kind of the starting
25 point for our project.

1 CHMN. CHENAL: And, again, the lines are --
2 there's -- can you just discuss briefly the lines, where
3 they're coming in from?

4 MR. BECK: Okay. From the lower bottom of this
5 photo, there's a triple circuit that's coming down and
6 heading south along Swan Road. And so it's heading
7 south. As it gets to Old Vail Road, that's where we
8 would break those lines. One of those currently goes
9 west to South Substation. Two head east to our other
10 substations.

11 CHMN. CHENAL: So there are actually three
12 lines coming down South --

13 MR. BECK: Correct.

14 CHMN. CHENAL: -- Swan to that point?

15 MR. BECK: Right.

16 North of Old Vail Road, it's a triple-circuit
17 structure construction. Three circuits on one structure,
18 one set of structures.

19 They come down. Two turn east; one heads west.
20 So we've got a single circuit going west, double circuit
21 going east.

22 CHMN. CHENAL: Okay. Member Noland.

23 MEMBER NOLAND: Mr. Beck, I can't tell from
24 your pointer which side of Swan Road those are coming
25 south on.

1 MR. BECK: Member Noland, currently, they are
2 on the west side of Swan Road as they're coming down Swan
3 Road.

4 MEMBER NOLAND: Thank you.

5 MR. BECK: So maybe let's go to the photo.
6 Well, okay, also up on the left-hand screen, again,
7 this -- north is -- up on this map. The triple circuit
8 is coming down along the west side of Swan Road. It
9 crosses the Old Vail Connection Road. And just on the
10 southern side of Old Vail Connection, the one circuit
11 heads west. The other two circuits go east.

12 The green represents the new construction. So
13 we would be breaking the line headed in a westerly
14 direction, one structure west of the triple-circuit
15 alignment. We would bring that back, tie it -- and this
16 would be -- this corner structure would be a double
17 circuit. So the existing line that comes down and turns
18 would come down, head down to Sonoran, and then come back
19 out of Sonoran to make that circuit, complete that
20 circuit.

21 Similarly, we would have a circuit that comes
22 down that currently is heading east. Instead, would head
23 south. And it would come back out. And that's not
24 specifically shown on here, but it would head east.

25 And, similarly, for the third circuit, it would

1 be tapped, come down, come right back up. And on that
2 structure, you would have one set of wires going east,
3 one set of wires going west. And those two would go
4 south to tie into Sonoran Substation.

5 Does that help?

6 CHMN. CHENAL: So three come south on Swan.
7 After the connection, one will continue to head west and
8 two will continue to head east after it ties in and comes
9 back out of Sonoran?

10 MR. BECK: Correct.

11 Q. BY MR. DERSTINE: Mr. Beck, all three of those
12 existing lines that you're showing that are heading
13 south, those originate at the Irvington Substation, which
14 is the Irvington plant and campus that was the focus of
15 the RICE project; correct?

16 A. That is correct. So they all originate at
17 Irvington -- at the old Irvington Substation and are
18 being moved to the new Irvington Substation now as we're
19 constructing that. So that is the origination point for
20 all three lines coming from the north.

21 CHMN. CHENAL: Member Noland.

22 MEMBER NOLAND: Mr. Beck, what is the
23 right-of-way width on the portion traveling south on Swan
24 Road before it gets to Old Vail?

25 MR. BECK: Member Noland, that's a good

1 question, and we'll have to research that because I do
2 not know offhand.

3 MEMBER NOLAND: Okay. Thank you.

4 CHMN. CHENAL: Member Woodall.

5 MEMBER WOODALL: Mr. Beck, are there any
6 reliability consequences as a result of this in-and-out
7 of the transmission lines that you have described for us?

8 MR. BECK: There will be reliability benefits
9 from the fact that we're tying all three circuits
10 together.

11 So if you think of an Irvington to Southline,
12 and I don't know the exact number, but say it were 10
13 miles long, we're effectively making it 8 and 2, but it's
14 tied in at Sonoran and to two other lines. So that's
15 where we get a reliability benefit. So it actually
16 improves reliability; plus, as we'll talk about later, it
17 provides some other benefits to the system.

18 MEMBER WOODALL: Thank you, Mr. Beck.

19 MR. BECK: So, again, those are the pictures.
20 One looking west. This one is looking to the north.
21 There's the triple circuit. Here, it's coming down to a
22 single-circuit structure where it's turning to the east.

23 Just off of the screen here would be the other
24 double-circuit tower where the one circuit is heading
25 east and the far side is heading west today.

1 And this is looking in the westerly direction.
2 Here's that double-circuit structure. Again, the far
3 side is coming down turning west. The middle circuit
4 comes down to the easterly arms on this structure and
5 head in our direction to the east. And then the third
6 circuit that's today on the east side of the triple
7 circuits comes down to this single-circuit structure,
8 turns, and also heads to the east.

9 Again, the photo to the north.

10 And then this is the photo looking to the east.
11 It's hard to see, but there is a double circuit that is
12 carrying the two circuits that are coming from that
13 corner today.

14 So here you've got three adjacent
15 double-circuit structures going, and we're traveling in a
16 southerly direction.

17 And we'll come up to this corner. You will see
18 three turning structures here. We change from heading
19 south. We head east to come over and drop into the
20 Sonoran Substation.

21 Patrick, can you go back to the beginning and
22 maybe just go just to where we start the turn with the
23 structures? I don't know if it will help to see that
24 corner a little bit.

25 So just as it starts to -- where you get close

1 enough to see the insulators a little bit.

2 Still, it's hard to see, but we've got existing
3 lines that are coming down, turning to go down towards
4 Sonoran here, here, and on the far eastern side of that
5 corridor.

6 Q. BY MR. DERSTINE: So I guess, again, just for
7 clarification, because it is somewhat hard to
8 conceptualize, there's no new circuits that are being
9 constructed. It's reconfiguration and realigning the
10 three existing that come south from Irvington, bringing
11 them into the new Sonoran Substation, and routing those
12 three circuits back out on their original paths?

13 A. Putting it a little differently, the three
14 existing lines. There's no new lines in addition to the
15 three existing lines.

16 Q. Right.

17 A. But there is about a mile of construction of
18 new double-circuit lines, three of them, to bring those
19 wires in and out of the Sonoran Substation.

20 So while it's not a new circuit or a new line
21 per se, it does have new transmission line construction.

22 Q. So the lengths and the costs that are shown in
23 the table on the placemat and also in the application,
24 that's the cost to extend those three existing circuits
25 and bring them into the Sonoran Substation and route them

1 back out again?

2 A. That is correct.

3 CHMN. CHENAL: Okay. All right. I note that
4 it's 2:30, and it seems like this might be a logical time
5 to take a break for the benefit of the court reporter and
6 for other reasons. I see there's some cookies that were
7 brought out, and I think we've lost Member Haenichen
8 until he gets his cookies.

9 So I see, I mean, on the agenda that the
10 applicants proposed, it has a 2:30 to 3:00 break for a
11 little something to eat. We -- I mean, if the Committee
12 doesn't object, we could do that or we could reconvene a
13 little quicker than that.

14 Quicker -- 20 minutes. Okay. So let's take a
15 20-minute break, and then we will resume.

16 MR. DERSTINE: Mr. Chairman, Members of the
17 Committee, I didn't know if Mr. Robertson or Mr. Schmaltz
18 had any questions. We can keep the Google Earth up and
19 they can ask any questions if they'd like while we've got
20 it up and Mr. Beck is --

21 CHMN. CHENAL: Well, that's fine. When we pick
22 up, I'll turn it back to you, Mr. Derstine, and see if
23 you have any further questions, and then we'll turn it
24 over to Mr. Robertson and Mr. Schmaltz.

25 MR. DERSTINE: Very good. Thank you.

1 (A recess was taken from 2:34 p.m. to
2 3:05 p.m.)

3 CHMN. CHENAL: All right. If we could take our
4 seats, and we'll resume the afternoon portion of the
5 hearing.

6 I want to compliment the audio crew. This is
7 the A team, and it doesn't go unnoticed by the Committee,
8 believe me.

9 Okay. When we left off, I think we had
10 finished the flyover, and Mr. Beck had answered a few
11 questions.

12 Mr. Derstine, if you have any further questions
13 of Mr. Beck -- if not, we'll see if Mr. Robertson or
14 Mr. Schmaltz do.

15 MR. DERSTINE: I'll just double-check.

16 Q. BY MR. DERSTINE: Mr. Beck, did you have any
17 clarifications or answers to questions that we need to
18 address now, or do you want to save those for later in
19 the testimony?

20 A. I think we'll save them for a little bit later
21 in the testimony.

22 Q. Can I have you do one clarification.

23 Patrick, could you put up just the project map.

24 So I want to make sure that we -- although it's
25 shown there in the legend that -- over the course of the

1 flyover, I don't think you indicated which was the
2 preferred -- maybe on the north. But just for the
3 purpose of the record, in terms of the preferred northern
4 route and the preferred southern route, if you can
5 identify those by color.

6 A. Yes. On the northern portion of the project,
7 TEP's preferred alternative is the Northern 2, or the
8 red, that goes to the east and then south on the eastern
9 edge of the Sonoran Substation.

10 And for the southern portion of the project,
11 TEP's preference is for the blue route, or Southern 1,
12 which goes down along Swan Road.

13 Q. And you may get questions from intervenors'
14 counsel, but my understanding is that designation of the
15 applicant's preferred routes is in line with the
16 positions of TAA as to the northern piece and South
17 Wilmot Land Investors as to the southern piece. Is that
18 your understanding?

19 A. Yes, it is, and we'll discuss a little more of
20 that in further testimony.

21 MR. DERSTINE: I think that was all I had for
22 now.

23 CHMN. CHENAL: Very good.

24 Mr. Robertson.

25 MR. ROBERTSON: Thank you, Mr. Chairman. I do

1 have a few questions of Mr. Beck only with respect to the
2 Google flyover.

3 Patrick, if you could leave that map up on the
4 left.

5 And if we could go to the point of the Google
6 Flyover on Southern Preferred 1 where it crosses over
7 Swan Road and begins to proceed south. I'd like to
8 review that, and I'm going to ask Mr. Beck one or two
9 questions. Maybe three or four.

10

11

CROSS-EXAMINATION

12 BY MR. ROBERTSON:

13 Q. If we could start moving south at that point.

14 Ed, I'm going to ask you, first of all, the
15 South Wilmot land is on the west side of Swan Road;
16 correct?

17 A. That is correct.

18 Q. It would be implicated by Southern 1 Preferred.

19 Would you describe that terrain as the Google
20 Flyover proceeds in a southerly direction till we get
21 down to the Cisne Switchyard.

22 A. Yes. The terrain along the west side of Swan
23 Road is generally flat. There is a wash or two that we
24 cross along that alignment, but there is not a lot of
25 terrain differential, hills or valleys. It's wide-open

1 space.

2 Q. And what about the vegetation? It looked like
3 from some of the key observation photos that it might be
4 creosote in nature or something else fairly close to the
5 ground. Is that a correct description?

6 A. Yeah, I believe it is primarily creosote. It
7 is all low-growing shrubbery.

8 There is -- just for informational purposes, as
9 we get down to the southern end towards the cul-de-sac,
10 you probably didn't pick up on it, but there is a very
11 lush area of vegetation on the east side of Swan, which
12 is a business. I believe they run a nursery, and they
13 have a lot of very green plants. So somewhere, they're
14 getting lots of water.

15 Q. Against the background of the questions I just
16 asked you about fairly flat terrain and low-level
17 vegetation, I want to give you a spoiler alert. I was
18 surprised this morning when I heard that the company is
19 requesting a 500-foot corridor for each of the southern
20 alternatives and a 100-foot right-of-way.

21 And during the morning recess, I called my
22 client to see if they were aware of the 500-foot
23 corridor. And I spoke with Robert Tucker, who you know,
24 and he's interacted with TEP on this project. And Robert
25 was quite surprised about the 500-foot corridor request.

1 Although I will acknowledge on the bottom of page 1 of
2 the application, there is the language that a 500-foot
3 corridor to site one set of structures for the southern
4 portion of the project to allow for siting flexibility
5 and to accommodate property owner preferences.

6 My questions to you are coming from the
7 standpoint of property owner preferences and property
8 owner concern.

9 Given that this is part of the future Verano
10 project development, why would TEP need a 500-foot
11 corridor on the west side of Swan Road for that portion
12 of Southern 1 Preferred?

13 A. Well, first, Mr. Robertson, let me clarify for
14 the record that TEP's application is for -- it is for a
15 500-foot-wide corridor, but it would be centered along
16 the centerline of the alignment that we're showing on the
17 western side of Swan Road. So it would extend 200 to 250
18 foot onto the Southern Wilmot, LLC, properties.

19 Q. Given the terrain here, which is essentially
20 flat, the absence of any significant vegetation, for the
21 single monopole structure that you're talking about for
22 the southern part of the project, wouldn't it be possible
23 to construct it and have a 100-foot right-of-way within a
24 corridor that was less than 250 feet in width?

25 A. It would be possible. And if we could get all

1 parties in this process to agree that a 100-foot-wide
2 right-of-way adjacent to the road right-of-way was
3 approved and would be sold to the company and we could
4 utilize it, we'd be very happy to do that.

5 Q. Well, I can speak only for the South Wilmot
6 landowner, but if they were willing to agree to that
7 condition with a 100-foot right-of-way extending into
8 their property, would that be sufficient for TEP's
9 purposes both for construction and maintenance of the
10 line?

11 A. It would be sufficient. Our only concern would
12 be if, during the actual construction activity, something
13 were discovered, for example, underground that would
14 preclude us from putting a pole in a location and we had
15 to shift it over, that we'd have to deal with that. And
16 likely, it would require some type of an action at the
17 Commission to get approval for that if we're outside of
18 the CEC corridor.

19 So that's why we identify a corridor wider than
20 we think we need. Our intent is to be adjacent to the
21 edge of road right-of-way, and ideally it would be a
22 100-foot right-of-way strictly adjacent to the Swan Road
23 right-of-way.

24 Q. Based on the studies of the area TEP has done
25 thus far, are you aware of any potential subterranean

1 impediments that would require you to go outside of a
2 100-foot right-of-way?

3 A. Not at this point we are not.

4 MR. ROBERTSON: Thank you. That's all I have
5 for this portion of my questioning.

6 CHMN. CHENAL: Thank you.

7 Member Noland.

8 MEMBER NOLAND: Thank you. I need a
9 clarification, Mr. Beck.

10 You said that the corridor would be based on
11 the centerline of the road? I mean, on each side, 250
12 feet? Or is it the edge of the right-of-way?

13 MR. BECK: I hope I said based on the
14 centerline of the route that we've shown. That is our
15 intent. So we have identified a centerline that's
16 adjacent to the road right-of-way, and we would center
17 our corridor on that.

18 MEMBER NOLAND: Well, that's kind of unusual.
19 And how do we know what the centerline is of this vague
20 route?

21 MR. BECK: Well, Member Noland, I understand
22 your concerns, and I know the Committee has taken a
23 different position in recent cases relative to these
24 alignments and corridor widths.

25 Historically, in our older cases, TEP always

1 came forward with a centerline of a proposed project and
2 asked for a corridor centered on that. It wasn't
3 relative to centerline of roadway or edge of
4 right-of-way, typically, unless that happened to be our
5 alignment.

6 So we came in with both on a map basis as well
7 as legal description and said, Here is a centerline that
8 we're proposing, and we would like a corridor centered on
9 that.

10 I understand the concerns of the Committee, and
11 we've had some discussion last week internally at the
12 company that should the Committee choose to -- or request
13 that we consider that corridor differently, such as from
14 centerline of road to the west or some other type of
15 description like that, that's definitely doable. But we
16 did come in with a proposed centerline and intended to be
17 centered on that with a corridor.

18 MEMBER NOLAND: That's what I thought you said.
19 And I -- I think it's clearer for everyone involved many
20 times if you use the centerline of the roadway, which
21 we've done in many, many cases. That's a given. That's
22 an absolute given. And people can understand, you know,
23 250 feet west or 250 feet east if you have a 500-foot
24 corridor. So I just -- I wanted to be sure I understood
25 what you were saying.

1 MR. BECK: Yes.

2 CHMN. CHENAL: Okay. Mr. Schmaltz, do you have
3 any questions of Mr. Beck at this stage?

4 MR. SCHMALTZ: Just briefly, Mr. Chair, Members
5 of the Committee.

6

7

CROSS-EXAMINATION

8 BY MR. SCHMALTZ:

9 Q. Can we go back to the map for Northern 1, the
10 flyover depiction. I wanted to follow up on those
11 questions with regard to the location of the corridor.
12 The northern portions are 1,000 feet?

13 A. Yes.

14 Q. And then Northern 1, I wanted to get to what
15 the ultimate right-of-way would be and whether it's
16 measured from the centerline or whether it's measured
17 from the planned width of Swan.

18 How do you -- what would ultimately that
19 right-of-way be if Northern 1 was the approved route?

20 A. If Northern 1 was the approved route, our
21 intent would be to try and be adjacent to the Swan Road
22 right-of-way with the start of our right-of-way and then
23 have 300 foot from that edge to the outer edge of our
24 right-of-way. So we would have a 300-foot path adjacent
25 to Swan Road.

1 Q. On the eastern portion on TAA property?

2 A. Correct.

3 MR. SCHMALTZ: That's all the questions I have.
4 Thanks.

5 CHMN. CHENAL: I guess I'm a little -- I could
6 use some clarification, Mr. Beck.

7

8

EXAMINATION

9 BY CHMN. CHENAL:

10 Q. On the width of the corridors that you're
11 requesting for the northern route and the southern route,
12 assume it's the preferred Northern Route 1 and --
13 Northern 2 Preferred and Southern 1 Preferred. I just
14 want to make sure what the -- have you confirm what the
15 width of the corridors are for those two portions.

16 A. Yes, Mr. Chairman.

17 For both of the northern alternatives, but
18 specifically for Northern Alternative 2, we have
19 requested a 1,000-foot corridor based on a centerline
20 that we have described and put into a legal description.

21 And here's an instance where there -- on the
22 north-south portion of that alignment, there is not a
23 road that we could center on, so we did a legal
24 description. Arguably, you could shift it slightly here
25 and get on the property line. That's possible. But on

1 that Northern 2, 1,000-foot-wide corridor.

2 On both of the southern alternatives, but
3 specific even to Southern 1, we are requesting a
4 500-foot-wide corridor for the length of that line based
5 on a centerline description that we have a legal for.

6 Q. Which is on the west side of Swan?

7 A. West side of Swan, correct.

8 Q. Okay. Now, so in answer to Mr. Schmaltz'
9 question, you talked about a 300-foot corridor.

10 A. 300-foot right-of-way.

11 Q. Right-of-way. Okay. I'm doing the same thing
12 that Member Noland did.

13 Okay. So the right-of-way would be 300 feet
14 for your preferred Northern Route 2?

15 A. Correct.

16 Q. And you're requesting a right-of-way for the
17 southern route of how much?

18 A. 100-foot wide.

19 Q. Okay.

20 A. And, again, the reason for the wider corridor
21 is just for some flexibility as we're designing the line.
22 And I know that we've provided in the past some legal
23 briefs relative to what the impact is to the landowner.
24 And, basically, a landowner can do whatever they want
25 with their land up until the time we actually have a

1 right-of-way that puts restrictions on it. And so even a
2 corridor defined, a property owner could still go in and
3 encroach upon where we were thinking of building the
4 line, causing us to have to shift. And that's why we
5 like a little bit of extra width in that corridor.

6 Q. So for the Northern Preferred 2, you're asking
7 for a 1,000-foot corridor and a 300-foot right-of-way.
8 And for the Southern Preferred 1, you're asking for a
9 500-foot corridor and a 100-foot right-of-way?

10 A. Correct.

11 CHMN. CHENAL: Okay. Member Haenichen.

12 MEMBER HAENICHEN: Mr. Beck, why wouldn't you
13 need the same flexibility on the southern route?

14 MR. BECK: Member Haenichen, we feel that
15 having 400 foot of flexibility in the southern is enough
16 for that 100-foot right-of-way that we need to obtain;
17 whereas, on the northern, we're going to be trying to
18 acquire 300 foot, and so we went with a little bit wider.

19 There's not a scientific method to why it's a
20 1,000 versus, say, 900 versus 800 on the north or why it
21 couldn't be 400 or 600 on the south. We just kind of
22 went to the most even number of 500 and 1,000. So we
23 don't have something that we're anticipating at this
24 point that's 999 feet that we are trying to deal with.
25 It's we just picked some round numbers.

1 MEMBER HAENICHEN: Well, our job, then, as the
2 Committee is to see if that descriptor you just gave
3 causes them any angst.

4 MR. BECK: I believe that's correct.

5 CHMN. CHENAL: Mr. Robertson, I believe you had
6 a question.

7 MR. ROBERTSON: Yes.

8

9 FURTHER CROSS-EXAMINATION

10 BY MR. ROBERTSON:

11 Q. Mr. Beck, in response to a question from
12 Chairman Chenal, if I understood you correctly, you
13 indicated that part of the reasoning in the past for
14 requesting a corridor that gives you flexibility planning
15 as you move forward is to give you that flexibility. But
16 until you get the right-of-way nailed down, the landowner
17 can do anything they want to within the corridor; is that
18 correct?

19 A. That was what we took from the legal
20 information we received, yes.

21 Q. Okay. What is the anticipated date if you
22 receive a Certificate of Environmental Compatibility as
23 you've requested for this project for construction of the
24 Southern 1 Preferred Alternative if that's the one
25 approved by the Committee and the Commission?

1 A. The project in-service date is mid-2022, so we
2 would be going to construction in 2021. But we would be
3 knocking on property owners' doors probably as soon as we
4 get the certificate in hand trying to finalize on a
5 right-of-way.

6 Q. And so if a landowner were going to do anything
7 in between, if the landowner and the company did not
8 reach agreement on the alignment of the right-of-way, as
9 a practical matter for South Wilmot, they would have to
10 do their master plan development within roughly two
11 years; right?

12 A. I believe that is correct, yes.

13 Q. Okay. Do you think that's realistic?

14 A. Probably not. I think the aspect -- the unique
15 aspects of this case, it is a shorter-term construction
16 time window for us. And we've -- at least our
17 understanding is we have willing landowners adjacent to
18 us to work with, that we shouldn't have real issues.

19 And so, narrowing up the corridor in this case
20 is not necessarily going to be problematic for us. But
21 as a generic issue for all cases, we would oppose that.

22 Q. And just to be sure we're on the same
23 wavelength with regard to South Wilmot as the landowner,
24 they are willing to work with the company for a corridor
25 less than 500 feet. And the question will become, what

1 is the width of that corridor. I think we're in
2 agreement on the 100-foot right-of-way.

3 A. Yeah. I think the discussion that the
4 Committee will have is what is the right width of
5 corridor to provide some flexibility. As I said, the
6 company only requires a 100-foot right-of-way to build
7 the line. So as long as we can procure 100 feet that's
8 continuous, it will work for the company.

9 Q. Okay. And then perhaps before the Committee
10 gets to deliberations, my client and the company can
11 propose something. We'll see.

12 Thank you.

13 CHMN. CHENAL: Member Woodall.

14 MEMBER WOODALL: Mr. Beck, you said that the
15 in-service date is 2023? Is that what you said?

16 MR. BECK: 2022.

17 MEMBER WOODALL: Did the RFP that NextEra
18 responded to, did that request -- I guess here's the long
19 and short of it. Someplace in the application, it says
20 in service by 2020. Initially, it was 2019, and then it
21 was 2020. So how can the project -- you catch my point.
22 There's a chicken-and-egg issue here.

23 MR. BECK: Eric, what is the right date?

24 MR. RAATZ: It's 2020, the in-service date.
25 2020.

1 MR. BECK: So it actually is 2021. Excuse my
2 mistake. So the project in-service is 2021, because
3 originally it was planned for 2020.

4 CHMN. CHENAL: Is it 2021 or is it 2020? You
5 might confer with your staff. I see some shaking heads
6 over there.

7 MR. BECK: It has been delayed to 2021. So the
8 original plan was for 2020 -- correct?

9 (Unidentified voices speaking simultaneously.)

10 MR. BECK: Okay. We will reset.

11 The in-service date is 2020.

12 MEMBER WOODALL: That's what it says in the
13 application.

14 MR. BECK: Yes.

15 MEMBER WOODALL: Okay. All right. I just was
16 not sure.

17 MR. BECK: As Mr. Derstine had indicated
18 earlier, we've had three cases this year, and I'm
19 confusing dates.

20 So this project was originally going to be
21 2019. It got pushed to 2020, which is the in-service
22 date. That's why we're imminent on actually having to
23 get right-of-way. So, I mean, we'll be immediately
24 getting with the landowners to obtain the right-of-way we
25 need.

1 CHMN. CHENAL: Let me remind you you're under
2 oath, Mr. Beck.

3 MR. BECK: I appreciate that.

4 CHMN. CHENAL: I say that in jest.

5 Okay. Any questions -- well, Mr. Schmaltz, do
6 you have any further questions?

7 MR. SCHMALTZ: No. I was going to actually ask
8 about that timing, but we've clarified that. Thank you.

9 CHMN. CHENAL: Okay. Any further questions?
10 This is kind of out of order for Mr. Beck because he's
11 going to -- you're going to bring a panel up and Mr. Beck
12 will be on the panel, so there will be plenty of
13 opportunities to ask questions of Mr. Beck. But I just
14 -- since we've addressed a certain area of testimony,
15 this will be the time if the applicant wants to -- any
16 redirect on this point?

17

18 REDIRECT EXAMINATION

19 BY MR. DERSTINE:

20 Q. My only question on redirect is just while it's
21 top of mind and we're focusing on the corridor widths, is
22 the reason why we're asking -- the company is asking for
23 a larger corridor width on the northern piece because
24 you're having to deal with three circuits as opposed to
25 the southern piece that's only a single circuit?

1 A. That is correct. We'll have three adjacent
2 circuits totaling 300 foot of right-of-way that we will
3 need to obtain, and also we will be dealing with the
4 Southline project along the northern portion on
5 Alternative 2 and would need the flexibility there so
6 that we can adjust accordingly relative to where
7 Southline -- it makes sense for Southline to build
8 relative to where we would build.

9 MR. DERSTINE: Nothing further.

10 CHMN. CHENAL: Any further questions from the
11 Committee?

12 (No response.)

13 CHMN. CHENAL: Okay. Mr. Derstine, if you want
14 to proceed with your panel, if that's the next witnesses
15 you would call.

16 MR. DERSTINE: Mr. Chairman, Members of the
17 Committee, my only question would be, is this an
18 appropriate time to have Mr. Beck walk through his
19 outline of the route -- proposed route tour while you've
20 seen that, and then we'll move into his direct testimony?

21 CHMN. CHENAL: Fine. Let's have Mr. Beck do
22 that.

23 MR. BECK: So, Mr. Chairman, Committee Members,
24 on the left-hand screen, you will see that we have a
25 proposed map of a route tour for the project starting out

1 at the DoubleTree Hotel.

2 The intent would be to leave the hotel tomorrow
3 morning at 9 a.m., and we would have a small bus that
4 would head down south to the project. And then we have
5 these various observation points to see the alignment.

6 We're a little bit limited on Alternative 2, on
7 the Northern 2, because there's not a lot of access in,
8 so we would be looking from potentially along Old Vail
9 Road. We're trying to validate that Old Vail Road is
10 actually open because a couple weeks ago, it got closed
11 for some pipeline work. We'll know for sure in the
12 morning before we head out. If we have to alter the tour
13 slightly, we would. That's going to be the last stop,
14 heading along Old Vail Road.

15 But we would come down Swan Road, and we would
16 have the various stops as shown in the -- in our exhibit
17 in the application.

18 We would come down, stop basically where the
19 project starts at Old Vail Road and Swan Road. You could
20 take a look at what is existing there, can point out
21 where the structures would generally be and what they
22 would look like.

23 Then we would continue on south to a point that
24 is just north of where the Sonoran Substation is located,
25 be able to look to the east and generally see where that

1 would be.

2 We would continue down Swan Road to another
3 point, which I believe that's No. 4 there.

4 Is that right, Patrick?

5 MR. DUBBERLY: Yes.

6 CHMN. CHENAL: So, Mr. Beck, 3 would be a
7 little to the east. That would be the next stop? It's
8 kind of hard to read the numbers, but ...

9 Is that 3 where I'm circling?

10 MR. BECK: Apparently, that is -- yeah, that is
11 3 there with the connection line to it.

12 So No. 1 is at the intersection of Old Vail
13 Road and Swan.

14 No. 2 is down along the Western Area alignment
15 where it crosses Swan Road.

16 No. 3 is at a point just north of the planned
17 Cisne Switchyard.

18 And then 4 is at the end of the cul-de-sac
19 where you can look across at the Cisne Switchyard.

20 I actually take that back. No. 3 is east of
21 Swan Road along the Southern 2 alignment. So there is a
22 dirt road that we can access out to the alignment of the
23 north-south portion.

24 And then, as we come back and leave the project
25 area, No. 5 would be along Old Vail Road, basically,

1 where the lines would turn south. And you could look in
2 a southerly direction to see that alignment.

3 And then we would head back over to Wilmot and
4 drive by the Robert Bills Substation on the way back to
5 the hotel.

6 CHMN. CHENAL: Very good.

7 Member Woodall.

8 MEMBER WOODALL: Dare I ask if we'll have the
9 opportunity to see any pineapple cactus during the tour?
10 Are we going by any patches?

11 MR. BECK: Yes. There will be some along the
12 way, so we could exit the bus and we could take a look at
13 them.

14 MEMBER WOODALL: I'm just curious because we've
15 heard a lot about them down -- for siting down here. So
16 I don't want to create a hike or anything like that, but
17 I would like to see them in the flesh, so to speak.

18 MR. BECK: Likely, we will be able to see some
19 adjacent to where we would be.

20 MEMBER WOODALL: Wonderful. Thank you so much.

21 CHMN. CHENAL: All right. So we anticipate the
22 tour will take two and a half hours or so. So start at
23 about 9:00, get back around 11:30. Then we would have
24 lunch, and we would resume the hearing about 1:00.

25 MR. BECK: That is correct.

1 CHMN. CHENAL: Okay. I think in terms of
2 notice, that that's what we should do, even if we get
3 back a little early, you know, so if people are expecting
4 for the hearing to resume after -- at 1:00, that we do it
5 then and not earlier if we get back earlier.

6 So, okay, Mr. Derstine. That was a good
7 suggestion to have that discussion.

8 We won't have everybody there tomorrow, but I
9 think we'll have a good number of people on the tour.

10 MR. DERSTINE: I think at this point,
11 Ms. DeCorse is going to handle the direct examination of
12 Mr. Beck, and we'll plow forward.

13 CHMN. CHENAL: Very good.

14 Ms. DeCorse.

15 MS. DECORSE: My only question would be, do you
16 want a panel or, Mr. Beck, would you prefer to be by
17 yourself or the Committee?

18 MR. DERSTINE: It might be a good time to swear
19 the panel.

20 CHMN. CHENAL: We can swear the panel, sure.

21 Will the questions only be of Mr. Beck at this
22 point, or will there be other panel as well?

23 MS. DECORSE: They are.

24 CHMN. CHENAL: Well, we can still swear the
25 panel, but they can sit wherever they'd like after we

1 swear them in.

2 All right. So the panel is seated in addition
3 to Mr. Beck.

4 So I'll ask, you have the option of an oath or
5 affirmation. So those that would prefer an oath, if you
6 would raise your right hand.

7 (Eric Raatz was sworn by the Chairman.)

8 CHMN. CHENAL: And would the others please
9 raise their hands, and we'll do the affirmation.

10 (Renee Darling and Jasmine Rucker were affirmed
11 by the Chairman.)

12 CHMN. CHENAL: Thank you very much.

13 Ms. DeCorse.

14 If the panel -- since the questions will only
15 be of Mr. Beck, if the panel would prefer to sit, you
16 know, as a panel now, that's fine. If you prefer to sit
17 wherever you were before you were sworn, that's fine too.
18 Whatever your preference is.

19

20 DIRECT EXAMINATION

21 BY MS. DECORSE:

22 Q. Mr. Beck, I know you are under oath, but why
23 don't you state your name again for the record.

24 A. Ed Beck.

25 Q. And I know you've previously testified before

1 the Line Siting Committee, but can you please remind them
2 of your education and professional background.

3 A. Yes. I have a Bachelor of Science degree in
4 civil engineering from the University of Arizona as well
5 as a master's in business administration. I'm a member
6 of the American Society of Civil Engineers, a member of
7 the board of directors of the Arizona Independent
8 Scheduling Administrator, and I have 39 years of
9 experience in the electric utility industry.

10 Q. And your current title with the company is the
11 Director of Transmission Development for Tucson Electric
12 Power?

13 A. That is correct.

14 Q. And what was your role in this project?

15 A. For this project, I oversaw the development of
16 the siting process and development of the application for
17 the CEC.

18 Q. So you were actively involved in the
19 preparation of the application.

20 Do you have an exhibit marked TEP-1 in front of
21 you?

22 A. Yes, I do.

23 Q. And could you please identify that document for
24 the record.

25 A. It is the application in this case for a CEC

1 for Sonoran to Wilmot Energy Center 138kV transmission
2 line project.

3 Q. And was the application prepared by you or
4 under your direction, I believe you just said?

5 A. Yes, it was.

6 Q. And, to your knowledge, was the application
7 organized and prepared consistent with the Arizona
8 Corporation Commission's rules for applications before
9 the Siting Committee?

10 A. Yes, it is.

11 Q. And to your knowledge, does the application
12 contain all of the exhibits that those rules require?

13 A. Yes, it does.

14 Q. All right. Now, before moving on with your
15 PowerPoint presentation, I'd like to discuss some of the
16 other exhibits that you're sponsoring.

17 So you mentioned your role again in the project
18 included oversight of the process. The company -- and as
19 part of the company's prefiled direct testimony, the
20 company filed proof of publishing the Notice of Hearing
21 in the newspaper. And I believe you have it in front of
22 you and is marked as TEP-9, Affidavits of Publication.

23 A. Yes, I do have that in front of me.

24 Q. If you could just walk us through the
25 publishing of the Notice of Hearing and the newspaper and

1 the dates on which that notice was published.

2 A. Yes. The notice was published in the Arizona
3 Daily Star on both Sunday, August 26th, and on Monday,
4 August 27th, of this year.

5 It was less than ten days after filing of the
6 application on August 15th, and a copy of the notice as
7 well as the affidavit is -- can be found in TEP
8 Exhibit 9.

9 Q. And were the copies of the Notice of Hearing
10 also sent to the affected jurisdictions?

11 A. They were. They were sent to the affected
12 jurisdictions, both Pima County and the City of Tucson.
13 And while technically not jurisdictions, we also provided
14 copies to the Tucson Airport Authority, South Wilmot Land
15 Investors, LLC, and NextEra on August 23rd.

16 We've also made copies available at both the
17 Phoenix and Tucson offices of the ACC as well as at two
18 local libraries, the Eckstrom-Columbus Public Library and
19 the Valencia Library.

20 The application, exhibits, transcripts, and all
21 project information are also available on the TEP website
22 for the project.

23 Q. And so, to clarify, the proof of service to
24 affected jurisdictions, you just mentioned, can be found
25 in TEP-11, which was also filed? Sorry.

1 A. That's correct.

2 Q. Now, working through your direct testimony,
3 which is marked as TEP Exhibit 4, that was prepared by
4 you?

5 A. Yes, it was.

6 Q. All right. And can you identify that for the
7 record, your direct testimony?

8 A. It is Exhibit 4 in our supplemental filing of
9 exhibits.

10 Q. And have you had a chance to review it since it
11 was filed?

12 A. Yes, I have.

13 Q. Do you have any corrections or changes that you
14 would like to make to it today?

15 A. No, I do not.

16 Q. And is the testimony that's presented in TEP-4
17 true and correct to the best of your knowledge?

18 A. Yes, it is.

19 Q. And if I asked you those questions that are set
20 forth in TEP-4, would your answers be the same today?

21 A. Yes, they would.

22 Q. So moving on to your PowerPoint that's shown up
23 on the right-hand screen, and it's marked as TEP-14. Was
24 that exhibit prepared by you?

25 A. Yes, it was.

1 Q. And I know this was recently filed on I believe
2 it was Friday, but have you since had a chance to review?

3 A. Yes, I have.

4 Q. Do you have any changes or corrections you
5 would like to make to your PowerPoint presentation today?

6 A. Yes, I do. There was one slide that
7 inadvertently didn't make it into our docketed version.
8 We have since supplemented the books that the Committee
9 members have and I believe included the revised
10 PowerPoint on your iPads to add a new slide 17, which
11 extended the slide deck by one slide.

12 Q. And is the testimony that's presented in TEP-14
13 with the addition of the new slide true and correct to
14 the best of your knowledge?

15 A. Yes, it is.

16 Q. Now, turning back to your PowerPoint
17 presentation, I know the other witnesses will provide a
18 greater discussion of -- to the specific project
19 components, but can you please just give us a quick
20 overview of the project and speak to what the company is
21 requesting in its application.

22 A. Yes. TEP is proposing in this project what
23 we've identified as a northern portion of the project,
24 which includes the Sonoran Substation, which will connect
25 to the existing TEP grid via the three existing 138kV

1 transmission lines that are in the vicinity of the
2 Sonoran Substation, and then we would extend a line down
3 from the Sonoran Substation to the Cisne Switchyard. The
4 Cisne Switchyard will be the point at which the NextEra
5 solar project would interconnect to the TEP system.

6 Q. So I notice you didn't mention the Wilmot
7 Energy Center as part of your project overview. Is that
8 because the applicant is not seeking approval of the
9 Wilmot Energy Center?

10 A. They are not seeking anything in conjunction
11 with TEP and I do not believe they intend to seek a CEC
12 because, being a solar project, it is exempt from CEC
13 process.

14 But the -- we've mentioned the Wilmot Energy
15 Center location shown here on the southern edge of this
16 map as the dashed or hatched lines. That is all of the
17 property that NextEra will be utilizing to develop its
18 combination of solar field and battery storage.

19 Q. And if you could please provide some background
20 as to the driver for this project.

21 A. Yes. As has been mentioned previously and
22 alluded to today, TEP is committed to what we call 30 by
23 '30, or obtaining 30 percent of our energy from renewable
24 resources by the year 2030. This is actually double the
25 current ACC mandate, which has 15 percent by 2025.

1 So, in furtherance of our goal to get to the 30
2 by '30, we issued an RFP for a 100-megawatt solar project
3 in November of 2016.

4 To give a little bit of context of some of the
5 behind the scenes that was going on as part of that
6 process, TEP had had discussions with the City of Tucson
7 relative to land that the City might have available that
8 would lend itself to solar installations, in particular,
9 relative to land that was owned primarily for water
10 rights needs. And so we had a map of those areas that
11 the City of Tucson owned. We included that in our RFP
12 process and requested 100 megawatts of solar with
13 preference being given to use of that land because we
14 were working with the City of Tucson.

15 NextEra came in with a project proposal that
16 was actually located somewhat south of the existing
17 or identified Wilmot Energy Center. And it was on a
18 piece of City of Tucson property that they had water
19 rights for, and so they had vacant land.

20 Another entity came forward with a proposal
21 that ultimately was not selected by TEP that was for the
22 land where the Wilmot Energy Center is today located.

23 We awarded our bid to NextEra. And
24 subsequently, NextEra negotiated with that other entity
25 that had an option, and they took over the position

1 relative to the current identified Wilmot Energy Center.

2 So the project for TEP moved slightly north of
3 where it would have been, a little bit closer to the TEP
4 existing system.

5 After we awarded the RFP to NextEra, which we
6 did in May of 2017 -- and I've put just a few headlines
7 on the slide in front of you -- at that time, that
8 project was one of the lowest cost combination
9 solar-battery storage projects announced in the country.
10 Since that time, there have been a couple a little bit
11 lower, but at this time, that was the lowest cost.

12 As a result of awarding the contract to
13 NextEra, they had to find a way to connect that 100
14 megawatts of solar to the TEP system, and they requested
15 an interconnection with the company.

16 That interconnection request goes through our
17 open access transmission tariff because it was at 138kV.
18 And Mr. Raatz will speak more to some of the study work
19 in that.

20 But at a high level, the question that Member
21 Woodall had asked earlier, the developer of a generation
22 project that's greater than 20 megawatts has to go
23 through an interconnection process. They come to the
24 company, identify a project they're bringing forward, and
25 ask what it will take to interconnect that project to

1 assist them.

2 So TEP undertook those studies, did a system
3 impact and facilities study to identify how this project
4 would work with our system.

5 But as we were developing that process, we
6 identified a huge advantage to the company of -- instead
7 of just connecting the Cisne Switchyard up to one of the
8 138 lines, which would have been an option, we would get
9 much more benefit from the regional and system
10 perspective by tying all three of the existing 138 lines
11 into a new substation.

12 So as a subset of doing a project to
13 interconnect solar, the Sonoran Substation became another
14 TEP interest in the overall project. And so we came
15 forward with developing the Sonoran Substation tied to
16 the existing three lines and then ultimately tying the
17 NextEra project to the TEP system with the one line going
18 down to Cisne Sub.

19 Just a little bit of context for TEP and where
20 we're at with renewables, on the left-hand screen,
21 there's a dashboard showing realtime output of
22 renewables. You can see that needle is bouncing a little
23 bit. That's actually what is being produced out on our
24 system right now by renewable energy.

25 Patrick, if you could scroll down a little.

1 Maybe stop right there.

2 So you can see our current solar, 133
3 megawatts. Current wind, 20 megawatts. And then today's
4 max is roughly 105 megawatts. And then, from a
5 megawatt-hours standpoint today, we've had 1,195.

6 Scroll down a little more and, actually, just
7 continue scrolling down.

8 So you'll see here's various projects we have
9 that are solar projects that are today connected to our
10 system and the specific output of any one of these
11 projects. And we're typically talking 10 or 20 megawatts
12 kind of as maximum for most of these.

13 With the NextEra project, we're talking 100
14 megawatts. It's going to be, by far, one of our largest
15 renewable projects for solar, at least for solar.

16 So some of that information on the left-hand
17 screen, that's an internal screenshot, but there is
18 external at TEP.com that gives some of the high-level
19 information for just the general public to see what is
20 being produced by renewables on a realtime basis.

21 And it's kind of an interesting aspect. Of
22 course, at night, solar goes away, but you're still going
23 to have -- in a lot of cases, you have actually more wind
24 in the evening, and so you see how those numbers shift
25 around.

1 CHMN. CHENAL: Mr. Beck, I don't know if this
2 is the right time, but to follow up on Member Haenichen's
3 question earlier about storage and how that relates to, I
4 guess -- well, storage of the power when the sun goes
5 down and the RICE generator. But I think I'd like to
6 hear a little more explanation about that aspect of the
7 overall project.

8 MR. BECK: Sure, Mr. Chairman.

9 So TEP has a total of 20 megawatts of batteries
10 on our system today. As we were doing the RICE project,
11 I think we had talked about the fact that we had those
12 two projects. They were kind of trial projects. They've
13 been very successful for our operational group relative
14 to frequency response issues, that second by second that
15 they're trying to balance our system.

16 The existing batteries that we have are very
17 short term. They're like in the range of an hour of
18 capacity. So you can't depend on those for much more
19 than that little bit of variation; but in immediate
20 response, it's great.

21 In the case of the NextEra project, we're
22 looking at 30 megawatts, and I believe they're
23 four-hour-duration batteries.

24 Historically, TEP did not have an appetite for
25 tax credits that come from renewable projects, and so we

1 always entered power purchase agreements. Because we
2 couldn't utilize tax credits, we wouldn't get kind of the
3 discount of those projects. But if an entity such as a
4 NextEra entered a power purchase agreement with us, they
5 would reflect the value of those credits within their
6 power purchase price, so we would get the benefit of it
7 that way. And so, historically, we didn't buy or build
8 our own projects. We had third parties build them, and
9 we took power purchase agreements.

10 This NextEra may be the last one where we
11 actually do that because with the tax law changes a year
12 ago, TEP can now take advantage of tax credits. Of
13 course, it's at a time when tax credits are starting to
14 go down and eliminated, so there may not be a lot of
15 benefit to it. But at least we could, as owners, then
16 take advantage of that and see that value of those
17 credits against our energy. So this may be the last
18 power purchase agreement that we do, and it was because
19 of tax credit issues.

20 But we saw this project as an opportunity to
21 expand kind of our research and development relative to
22 batteries. What could a little-bit-longer-time battery
23 provide for us.

24 But the flip side is some of the tax credit
25 issues is that for the first I believe it's five years,

1 there's restrictions on the use of the batteries.
2 They're not 100 percent at TEP's call. They can only be
3 charged from the solar that they're tied to. So we can't
4 use those batteries, say, off hours and charge them up
5 with our grid. They can only be charged with the solar
6 when it's producing. So it limits when you can call on
7 them and the flexibility that we have.

8 But, still, it's going to be a good test for us
9 to see how much value it brings. But, again, if you're
10 only talking four hours of capacity, what do you do for
11 the other six or seven hours when solar isn't producing?
12 And that's where the RICE units come in. They can be on
13 24 hours a day to support our system as opposed to the
14 batteries, which are very short term.

15 CHMN. CHENAL: Thank you, Mr. Beck. Thank you
16 for that explanation.

17 Member Haenichen.

18 MEMBER HAENICHEN: Mr. Beck, what do you mean
19 by 10 megawatts of batteries? They'll store 10 megawatt
20 hours, or what do you mean by that?

21 MR. BECK: They have a capacity of 10 megawatts
22 with a duration -- I believe it's an hour-long duration
23 for the battery systems that we have installed to date.

24 MEMBER HAENICHEN: So that's 10 megawatt hours?

25 MR. BECK: Yes.

1 MEMBER HAENICHEN: That's a better way to
2 characterize it, not megawatts?

3 MR. BECK: Yes.

4 CHMN. CHENAL: Just out of curiosity on the tax
5 change, this is maybe not relevant to the hearing, but
6 will that impact NextEra's ability to do projects going
7 forward if TEP says to itself because of the tax changes,
8 Hey, we can just build these ourselves and take advantage
9 of these tax credits going forward? I mean, here's one
10 of your vendors on a very important project. Is this, in
11 your analysis, going to impact the viability of NextEra
12 to follow through on the project in the future?

13 MR. BECK: Not for this particular project. I
14 mean, they're committed to this project. I think they
15 will make it happen, make it work.

16 Longer term, TEP will have an appetite for tax
17 credits, but there have been other entities in the past
18 who already had the ability to use tax credits but still,
19 for whatever reason, would go with power purchase
20 agreements.

21 We were somewhat unique in that -- and I'm not
22 sure of all the details on the financial side, whether we
23 had built up so much that we just couldn't use those
24 credits, but I do know that with the tax law change, we
25 now can take advantage.

1 So I think we're just one small player in a
2 pretty big area for the vendors, so I don't think it's
3 going to have a lot of impact to them. And, in fact, we
4 are working with them on other projects relative to wind
5 projects.

6 CHMN. CHENAL: Member Hamway.

7 MEMBER HAMWAY: You had said that TEP can't
8 charge the batteries using your own power. It has to be
9 done through the solar. And you -- who makes that
10 decision?

11 MR. BECK: Member Hamway, it's an IRS
12 requirement. So in the tax credit law --

13 MEMBER HAMWAY: Okay.

14 MR. BECK: -- it has very specifics that then
15 get transferred into our contract, and basically it says
16 that the only power that can be used to charge those
17 batteries that are getting these tax credits has to come
18 from the solar they're tied to.

19 MEMBER HAMWAY: Okay.

20 CHMN. CHENAL: Thank you.

21 Q. BY MS. DECORSE: And if you could please
22 provide the Committee with a high-level overview of the
23 siting process that's conducted for this project.

24 A. Yes.

25 So for this project, we started out with the

1 concept that we were going to tie the three lines on the
2 north to the Sonoran Substation and then actually extend
3 from the Sonoran Substation, loop it to our South
4 Substation. And we had multiple alternatives showing for
5 the path to get from the Wilmot Energy Center to the
6 South Substation.

7 In our first public meeting, that was the
8 proposal that was -- went out to the public, is a project
9 from our existing lines, through Wilmot Energy Center, to
10 South Loop Sub.

11 Subsequent to our first public meeting, the
12 Southline project brought in some study work to us, as
13 well as we were doing internal studies as part of the
14 impact study process, and identified that continuing the
15 line from the Wilmot Energy Center to South Sub didn't
16 bring the value that we originally thought it would. And
17 so we scaled the project back, eliminated the line over
18 to South, and it became a project only from the three
19 existing lines down to Cisne Sub.

20 The impact that had is when we started out the
21 project -- on the study area map, you can see this dashed
22 oval, that was our original study area. So it
23 encompassed the potential lines over to South Substation
24 that would be in the southwest quadrant or portion of
25 that oval. When we scaled the project back to eliminate

1 South, we ended up with a study area that was that circle
2 shown on the map.

3 But when we did that, in our original study
4 area, we had greater than 16,000 on our mailing list.
5 And Ms. Rucker will speak more to this in her testimony,
6 but we did not reduce our notice to the public. We've
7 kept that same mailing list as we moved forward, even
8 though we reduced the study area and the size of the
9 project down.

10 So everybody was still noticed. It just
11 eliminated some of the ground and field truthing work
12 that would be done, so it just eliminated the exposure or
13 the expanse of that that we had to take care of. And so
14 we ultimately ended up with the study area being the
15 circle you see kind of in the bottom left of this map.
16 But as far as notice goes, we continued to send to that
17 much larger list.

18 Q. But --

19 CHMN. CHENAL: May I interrupt just for a
20 moment, Ms. DeCorse.

21 I can't resist now to show that I need a lot of
22 education here, but I'm going to follow up on Member
23 Woodall's question previously.

24 I see on the screen on the left a reference to
25 a Sonoran Substation and to a Wilmot Switchyard. You

1 indicated under our siting statute, which is correct,
2 that the siting statute does refer to the word
3 "switchyard" as part of the transmission line. And TEP
4 has drawn the distinction, said that substations are not
5 part of an application process and switchyards are.

6 What is the difference between a substation and
7 a switchyard?

8 MR. BECK: So the difference -- and I believe
9 this stems originally from a Staff engineer at the
10 Commission. But a substation consists of a switchyard
11 that has transformation in it.

12 So a switchyard typically will only have lines
13 terminating and breakers and switches, and that's all
14 that's in there. Once you start transformation, it
15 becomes a substation. And the statute is specific to say
16 switchyards.

17 And kind of the flip side of that, our statutes
18 within the Tucson area are specific that for power
19 substations, the City and/or the County have jurisdiction
20 over permitting of those. So we always permit our
21 substations through either the City or the County
22 jurisdiction here. In this case, it's the City of
23 Tucson, and it's the SELUP process. And in the County,
24 it's the power substation permit process. They don't
25 typically deal with switchyards. So if we're building a

1 switchyard in Tucson or Pima County, we don't need to do
2 any permitting for it. Substation, we do.

3 Kind of the flip side of that is when we go to
4 the Commission for a CEC, we will site switchyards
5 because they're called out by the statute, but not
6 substations.

7 CHMN. CHENAL: So a substation has a switchyard
8 in it; but because there's a transformer added to it,
9 it's now not part of the Committee's jurisdiction?

10 MR. BECK: Well, to say it's not part of the
11 Committee's jurisdiction, to me, it's a little bit of a
12 play on words because when we bring a project forward, we
13 typically show either our end or intermediate points as
14 either being a substation or switchyard. The Committee
15 and the Commission are approving the transmission lines
16 to connect those facilities. Those facilities have other
17 permit requirements. In particular for a substation, we
18 have to go through our local jurisdiction.

19 So are we bringing forward a switchyard or a
20 substation specifically for Committee and Commission
21 approval? To me, part and parcel of the approval process
22 is if those are associated with the project, you're
23 typically approving the project.

24 So, again, I'm not a lawyer, so I can't say
25 that's a legal response.

1 CHMN. CHENAL: That was a very lawyerly
2 response, nevertheless, Mr. Beck. That's a question for
3 another day, but I give you a gold star for your answer.

4 MR. BECK: Thank you.

5 CHMN. CHENAL: Okay.

6 Q. BY MS. DECORSE: Mr. Beck, before you continue,
7 though, I wanted to clarify for the record, the slide 6,
8 the study area, is that from the application?

9 A. Yes, it is.

10 Q. And I believe you can find it in Exhibit A-3,
11 page 5?

12 A. Yes, that is correct.

13 Q. But I just wanted to know where the -- on the
14 left screen where that's from.

15 A. The left screen was one of the documents that
16 we used in our public process.

17 Q. All right. Thank you.

18 A. And so it's -- I believe it's actually back in
19 the exhibits in the application.

20 Q. That was my next question, if it was provided
21 as part of the application.

22 A. I don't know which particular exhibit, but it's
23 in there.

24 Q. I believe it says on the screen. I just
25 couldn't read it.

1 A. I believe it's Exhibit J.

2 Q. All right. Thank you.

3 And as part of the study process -- I'm sorry.
4 As the study process progressed, did the company develop
5 alternatives for the project?

6 A. Yes, we did. And as the project progressed,
7 our naming conventions changed slightly, in particular,
8 how we labeled the alternatives. But they were generally
9 the same alternatives. It's just the way we called them
10 out. But for clarity in the application, we ended up
11 using Northern 1 and Northern 2 for the northern portion
12 of the project.

13 And so, on the slide, you'll see Northern 1
14 shown in green. It would be the alignment coming down
15 along Swan and going into Sonoran Substation.

16 The Northern 2 is the red line that heads east
17 from the corner of Swan and Old Vail Road to a location
18 just a little bit east of the proposed Sonoran Sub that
19 heads south and into the substation.

20 For the southern routes, Southern 1 is the blue
21 line and goes along Swan Road down to Cisne Substation.
22 And Northern -- or Southern 2 is the yellow line that
23 goes west -- east out of Sonoran Substation, then turns
24 south along the residential properties and back over to
25 Cisne Substation.

1 Q. And were there stakeholder concerns identified
2 in the process?

3 A. Yes, there were. We had -- we identified our
4 stakeholders as the Tucson Airport Authority, South
5 Wilmot Land Investors, LLC; and then, ultimately, Pima
6 County became interested in the project.

7 And as you can see on the left hand -- well, on
8 either screen, on the northern portion -- and it's kind
9 of hard to tell from these, but this is a greenish
10 color -- that -- all of that green land in the north is
11 TAA property.

12 In the mid part of the slide, all of that tan
13 property belongs to South Wilmot, LLC.

14 And then the green is the NextEra Wilmot Energy
15 Center.

16 And as you heard when Mr. Robertson gave his
17 opening, this property here, which is the Wilmot Energy
18 Center, originally was part of the Verano properties,
19 which is part of South Wilmot, LLC. So they had sold
20 that land to NextEra for the project.

21 Q. And did Staff indicate their position on the
22 project?

23 A. Yes, they did. And, in fact, just this
24 afternoon, we received, through Docket Control, the Staff
25 recommendation.

1 We've handed out a copy of the full
2 recommendation to the Committee, but I would draw your
3 attention to the last -- I believe it's the last page.
4 Just above the Conclusion and Recommendation, where Staff
5 indicates that: The Project was studied by TEP
6 internally in a System Impact Study that analyzed the
7 impact of interconnecting the WEC facility to the TEP
8 system. The SIS consisted of power flow, transient
9 stability, post-transient stability and short-circuit
10 analyses and was based on the Western Electric
11 Coordinating Council's approved 2019 heavy summer and
12 2021-22 heavy winter models for conducting the study.

13 They go on to say that Staff reviewed the
14 results of these studies and found that they showed no
15 negative impacts on grid reliability and/or safety,
16 provided they are constructed in compliance with, and
17 operated in accordance with good utility practice and
18 applicable reliability standards.

19 The ultimate conclusion and recommendation from
20 Staff says that Staff believes the Project as proposed in
21 the Application will not impact the reliability,
22 resilience, or safety of the grid.

23 The Utilities Division recommends including, as
24 a condition to any CEC the Siting Committee may issue,
25 the standard cathodic study condition to evaluate the

1 risk to any existing natural gas or hazardous liquid
2 pipelines. And then they go on to state their condition.

3 And we do propose that condition in our
4 proposed CEC.

5 So, again, to point out, we did provide the
6 System Impact Study to Staff. They did review it. They
7 found it okay. We're more than happy to provide it to
8 the Committee should the Committee see the need for it.

9 I just wanted to point out that the staff has
10 reviewed it and has a copy of it.

11 CHMN. CHENAL: Member Woodall.

12 MEMBER WOODALL: My question would be, I know
13 these things are often amended or updated, so we don't
14 really -- which one did you send them?

15 MR. BECK: We sent it to them about three weeks
16 ago, so it was whatever -- the latest at that time, which
17 the System Impact Study has not been revised.

18 MEMBER WOODALL: So it might have been in
19 March, perhaps?

20 MR. BECK: I believe it was -- I don't know the
21 date of the study. It was provided to them within the
22 last three or four weeks, but it may have been dated
23 March.

24 MEMBER WOODALL: So it would have been hot off
25 the press?

1 MR. BECK: Right.

2 MEMBER WOODALL: All right. Thank you very
3 much, Mr. Beck.

4 CHMN. CHENAL: Member Haenichen.

5 MEMBER HAENICHEN: Referring to the document
6 we've just been talking about, the Conclusions and
7 Recommendations, I presume they mean the project will
8 have no negative impact on reliability, resilience, or
9 safety. Because you've been preaching that it's going to
10 have a positive impact.

11 MR. BECK: Member Haenichen, that is correct.
12 Our position is that it would, in fact, have positive
13 benefits. I think their position was, is there's no
14 negative impacts from the project.

15 CHMN. CHENAL: Member Palmer.

16 MEMBER PALMER: Actually, Member Haenichen was
17 reading my mind. My comment was that I was surprised to
18 not see that it does improve reliability rather than they
19 just said that it had no impact.

20 I wondered if you had any comment on that.

21 MR. BECK: Relative to how Staff reviews these
22 projects, it's kind of a black hole for us. So we
23 typically will go and meet with Staff prior to -- as
24 we're contemplating a project, let them know it's coming.
25 And then, when they had more staff, we used to have more

1 discussion and review with them about specifics of a
2 project.

3 But in this instance, I was contacted by the
4 Staff engineer, who said, Could I have a copy of the
5 System Impact Study? We provided that. She had one or
6 two other questions via email, and that's the extent of
7 our discussion.

8 So beyond that, I'm not sure how Staff handles
9 these.

10 CHMN. CHENAL: Member Woodall.

11 MEMBER WOODALL: So does the System Impact
12 Study have an estimate of costs in it somewhere?

13 MR. BECK: We believe it does, and we are
14 researching that.

15 MEMBER WOODALL: Okay. Because I think -- so
16 you haven't forgotten me, Mr. Beck?

17 MR. BECK: I have not forgotten your question.

18 MEMBER WOODALL: Thank you so much.

19 MR. BECK: Yes.

20 CHMN. CHENAL: Will there be, Mr. Beck, some
21 testimony on that system impact statement?

22 MR. BECK: Yes. So Mr. Raatz will speak more
23 to the System Impact Studies, what was done and what they
24 encompass.

25 CHMN. CHENAL: Thank you.

1 Member Noland.

2 MEMBER NOLAND: Thank you, Mr. Chairman.

3 Mr. Beck, I see on your slide that -- and you
4 have stated that TEP's goal is 30 percent renewable
5 generation by 2030.

6 With this project, what will your percentage be
7 by 2020?

8 MR. BECK: Member Noland, that's a good
9 question and --

10 MEMBER NOLAND: Always good questions.

11 MR. BECK: -- we'll have to find a good answer
12 for you.

13 CHMN. CHENAL: Well, 10 percent is renewable
14 now, so, you know, it's math.

15 MR. BECK: Yeah. But after my earlier
16 discrepancy, I'm going to make sure we get the right
17 number.

18 CHMN. CHENAL: All right. Member Haenichen.

19 MEMBER HAENICHEN: Mr. Beck, when you say 30
20 percent, do you mean energy or power?

21 MR. BECK: Energy.

22 MEMBER HAENICHEN: Thank you.

23 CHMN. CHENAL: Could you explain the difference
24 between the two, Mr. Beck?

25 MR. BECK: It's total delivered power versus

1 capacity at a given time.

2 CHMN. CHENAL: Member Woodall.

3 MEMBER HAENICHEN: The stuff we pay for.

4 MEMBER WOODALL: Mr. Beck, do the batteries
5 fall within the definition of renewables in the
6 Commission's rules related to the renewable energy
7 standard?

8 MR. BECK: That is another good question, and
9 we will find that answer too.

10 MEMBER WOODALL: I'm just curious. Thank you.

11 MR. BECK: Yeah.

12 CHMN. CHENAL: You got a gold star for the
13 lawyerly answer. You're still doing all right.

14 MR. BECK: Thank you.

15 CHMN. CHENAL: Ms. DeCorse.

16 Q. BY MS. DECORSE: And if you could continue to
17 walk us through the relative positions of the
18 stakeholders you just identified.

19 A. Yes.

20 So starting with Pima County, just prior to
21 filing our application in the case, we received a letter
22 from Pima County. And in that letter, they stated their
23 opposition to the Northern Alternative 2. And as a
24 result of that opposition, we decided to have a
25 stakeholder meeting, get all the stakeholders together,

1 and see if we could resolve the issue.

2 So we had Tucson Airport Authority, South
3 Wilmot, NextEra, and Pima County in the room to discuss
4 concerns and support or not support for various
5 alternatives.

6 The Pima County representative that was there,
7 we thought -- our understanding was he might be able to
8 sway the County in a letter -- or responding with a new
9 letter saying that they weren't as against Northern 2 as
10 indicated.

11 In reality, when we received a follow-up letter
12 from the County administrator, Mr. Chuck Huckelberry, I
13 believe that was on August 14th, he raised concerns and
14 said they would not alter their previous position of
15 opposition to Alternative 2 and, in fact, would actively
16 oppose the proposal of using Alternative 2 during the
17 Arizona Corporation Commission proceedings.

18 So, as a result of that letter, TEP's president
19 and CEO called up the County administrator to discuss the
20 concerns. And as a result of that discussion, the
21 company agreed that we would pay for relocation of the
22 portion of Alternative 2 along Old Vail Road in the
23 future if it were going to impact the ADOT interstate
24 highway corridor connection.

25 And so Mr. Huckelberry wrote a revised letter

1 to TEP on August 23rd, in which he stated that after
2 discussion with our CEO, that they had resolved the issue
3 and that subject to clear documentation in the CEC
4 process that we were committing to pay for that
5 relocation, that the issue relative to Alternative 2 from
6 the County perspective was resolved.

7 CHMN. CHENAL: Member Woodall and then Member
8 Noland.

9 MEMBER WOODALL: Okay. So, Mr. Beck, this real
10 estate study, what phase is it in in terms of
11 environmental studies; do you know?

12 MR. BECK: Well, Member Woodall, if we could
13 wait just a few slides, I --

14 MEMBER WOODALL: Oh, I'm sorry. I just read
15 your testimony. I never look at the PowerPoints. Thank
16 you.

17 MR. BECK: I understand.

18 CHMN. CHENAL: Member Noland.

19 MEMBER NOLAND: Mr. Chairman, I don't remember
20 this issue coming up when we did the Southline locating.
21 I really don't. And that just may be my bad memory. But
22 we didn't get a letter from Huckelberry on that. We got
23 it on the environmental areas and the property owned by
24 Pima County and so on and so forth.

25 The way I'm looking at it, I think they're

1 pretty good, Mr. Beck, because I doubt if they're going
2 to take out part of the prison facilities that are
3 located up there near that planned corridor.

4 CHMN. CHENAL: Up in this area.

5 MEMBER NOLAND: Yes. Up right where the
6 bottom -- there you go. All the green lights.

7 So I'm just confused by the things that Pima
8 County likes in one case and doesn't like in another
9 case. I'm very confused by that. And they never come
10 and testify to tell us the rationale. That's not a
11 question to you.

12 That's just a concern of mine, Mr. Chairman,
13 because it's hard to put a finger on what they really
14 want or don't want at any given time.

15 MR. BECK: So, Mr. Chairman, Member Noland, I
16 have a few more slides to talk a little bit more about
17 Pima County's concerns. But they are willing to provide
18 public comment should the need arise in support of this.
19 So just so you're aware of that.

20 MEMBER NOLAND: In support of you accepting
21 responsibility -- TEP accepting responsibility to move
22 the lines should the alignment fall in that area? Is
23 that what you're saying?

24 MR. BECK: That is correct, yes.

25 MEMBER NOLAND: Okay. Thank you.

1 MR. BECK: So the issue from Pima County's
2 perspective goes way back. And they have been very
3 interested in what a lot of the parties in the Southern
4 Arizona area call the Sonoran Corridor. The Sonoran
5 Corridor is not just the interstate connection, but, in
6 some cases, it's kind of connected to that or there's an
7 indication that they're kind of one and the same, which
8 they're not necessarily the same.

9 But Pima County, along with TREO, which has now
10 morphed into I believe the Sun Corridor Group, that group
11 has been pursuing developments in what they call the
12 Sonoran Corridor for a considerable amount of time.

13 And one of the things Pima County did was they
14 created the Pima County Aerospace, Defense & Technology
15 Research and Business Park. Nice, very long name, but
16 the idea was to help support keeping Raytheon in the area
17 and, in fact, getting Raytheon to expand their business
18 in Tucson. They relocated a road as part of that to
19 assist Raytheon with those issues as well as provide
20 potential areas for development in support of the
21 business that Raytheon is in, aerospace and technology.

22 They identified the need to help that economic
23 development process along as this being kind of the
24 international -- national and international crossroads in
25 Tucson for activity from Mexico all the way up to Canada

1 and as well as Mexico towards California and/or towards
2 the East Coast.

3 They identified roadway transportation as a key
4 part of that, air transportation -- and, of course, we're
5 adjacent to the Tucson Airport Authority -- and rail
6 service. So I'll talk a little bit in a minute about a
7 proposal for a rail line to be part of this Sonoran
8 Corridor process.

9 On the left-hand screen is just one of the
10 pages from the Pima County Aerospace brochure, I guess.

11 Patrick, if you could just scroll down a
12 little.

13 You'll see this map again later, but it's
14 basically showing Mexico all the way to Canada.

15 Scroll a little more. Stop there.

16 So they identified this as being what they
17 called the Aerospace Parkway. That road has actually
18 been developed and relocated. Raytheon sits just to the
19 north of that.

20 And so not only was Pima County, but even
21 Raytheon was promoting development in this area by
22 businesses that support or supply stuff to Raytheon; and,
23 subsequently, they've had a couple of entities that have
24 located in this area as a result of this development
25 effort.

1 Scroll down a little more. I think that's the
2 end of that one.

3 CHMN. CHENAL: Let me ask a question. Maybe
4 this is for counsel.

5 We've been seeing a number of slides on the
6 left screen that, for example, were not part of
7 Mr. Beck's slide presentation. But are those slides
8 we're seeing on the left-hand side, are they part of the
9 evidence that's going to be admitted?

10 MS. DECORSE: To the extent that I have caught
11 them, I have tried to keep note of those that I will
12 admit at the end. But this is, I believe, a footnote in
13 your direct testimony, but we can admit them.

14 CHMN. CHENAL: Well, I just think it would
15 be -- I think we should --

16 MS. DECORSE: Okay.

17 CHMN. CHENAL: -- because we're trying to
18 create the record. We want to make sure the -- because I
19 find these very informative. For example, the
20 information previously on the breakdown between wind
21 versus solar, and that's off the website. This is all
22 information I think is informing us and influencing our
23 decision, and I just would like to make sure it's in the
24 record so that the Corporation Commission can see the
25 same things that we've seen during the course of the

1 testimony. And I just think that would make the record
2 more complete to have that.

3 MS. DECORSE: All right. We will have that
4 available.

5 CHMN. CHENAL: Very good.

6 MR. BECK: Okay. Again, on the right side of
7 my slides, you can see they had titled this one To the
8 Sun Corridor and Beyond. Sonoran Sun Corridor. It was a
9 combination of names that has been used throughout the
10 process.

11 But, again, just showing all the way from
12 Mexico to Canada. Another picture on the right-hand
13 side, same thing, Mexico to Canada as well as
14 connectivity east and west. But not only by interstate,
15 but by railroad.

16 So, again, on the left side, here's a brochure
17 about Sonoran Corridor, the regional economic catalyst.

18 So if you scroll through that, Patrick.
19 Probably just stopping right there.

20 They identified an impact of \$32 billion
21 financial impact, 200,000 job creation. And this was out
22 of an economic study that the County had commissioned.

23 Scroll down a little more.

24 Again, it talks about a need for railroad,
25 airline, and highway.

1 And, also, one of the issues that was near and
2 dear to the County was just the volume of traffic that
3 will be on our interstates as we move forward and the
4 opportunity to spread that across this new interstate
5 connection. Basically, the interstate connection would
6 bypass downtown city of Tucson and provide an east-west
7 route that would bypass Tucson, or at least the city
8 center.

9 But here are the entities that have been
10 involved in this process throughout. You can see TEP is
11 one of the parties. But all of the utilities and
12 businesses in the area find that the whole Sonoran
13 Corridor concept is very helpful.

14 CHMN. CHENAL: Member Woodall had a question.

15 MEMBER WOODALL: Mr. Beck, when was this
16 Sonoran Corridor first discussed? Because I seem to
17 think that it was quite a while ago. And what's the
18 genesis of it, the origins? How long ago?

19 MR. BECK: So I'm being told it started around
20 2007, but I know it's been a considerable amount of time.

21 MEMBER WOODALL: That's what I thought.

22 MR. BECK: And as I indicated, TREO was
23 involved pretty heavily, which was the Tucson Regional
24 Economic Development Group, which transformed to now I
25 believe it's called Sun Corridor, but their whole goal in

1 life is economic development in Southern Arizona. So,
2 yes, this is a long-time thing that has been coming
3 along.

4 The actual linkage, which is pretty much
5 showing on this slide, it's somehow tying I-19 to I-10
6 without going through the city of Tucson center.

7 And in particular, this is the alignment that
8 Pima County has a preference for. They went so far as to
9 have the Board of Supervisors adopt this as I think their
10 preferred alternative. That's not to say that the Town
11 of Sahuarita south of here, they have their own idea of
12 what would be ideal. And I believe it's Sahuarita Road,
13 I believe. But it's another path down here. And there
14 are a couple other areas identified as potential routes
15 for the line.

16 MEMBER WOODALL: So where is this with ADOT, I
17 mean? Or is this just lines on paper at this point, or
18 is ADOT actually studying something?

19 MR. BECK: Okay. If you wait one more slide --

20 MEMBER WOODALL: Oh, I'm so sorry. You're just
21 so interesting.

22 CHMN. CHENAL: Go ahead and answer the question
23 because Member Noland also had a question.

24 MEMBER NOLAND: No, Mr. Chairman. I was just
25 going to say that we don't want to confuse the Sonoran

1 link with the Sun link. Those are two different things.
2 11 -- Highway 11, Interstate 11, is meant to go from
3 Mexico to Canada. This is not Interstate 11. This is a
4 bypass between the southern route to Mexico and coming in
5 or going out to the east so that that traffic isn't
6 centered in Tucson. But it's still not the link between
7 Mexico and Canada. 11 has a -- I believe a different
8 routing than this. I think this is -- and people are
9 shaking their heads yes. This is a Pima County, maybe
10 ADOT, and other business proposal to handle a lot of
11 traffic between Mexico and off to the east.

12 CHMN. CHENAL: Okay. We have a number of
13 questions.

14 Member Haenichen.

15 MEMBER HAENICHEN: Thank you. This is back to
16 the County and their objection and the meetings that you
17 spoke of with potential solutions. Now, I presume when
18 we get down to the conditions on the CEC, this is going
19 to be addressed somewhere?

20 MR. BECK: That is correct. We have a proposed
21 condition that we will be proposing in our form of CEC.

22 MEMBER HAENICHEN: Okay. Now, how comfortable
23 are you that that condition will satisfy Mr. Huckelberry?

24 MR. BECK: We've had indication from a Pima
25 County representative that he felt that it would, and I

1 think he would be willing to say so in public comment if
2 need be.

3 MEMBER HAENICHEN: Should you, in the future,
4 have to move the line, as you mentioned, because of some
5 condition that was at odds with what they wanted to do, I
6 presume you've done a sort of rough calculation on what
7 that would cost. Is it a back-breaking number or ...

8 MR. BECK: Member Haenichen, it's about
9 1.1 million. So we did take a look at that, what it
10 would cost us, and we estimate relocating that portion of
11 the line, assuming it's only a couple hundred feet one
12 way or the other, would be roughly 1.1 million.

13 MEMBER HAENICHEN: Thank you very much.

14 CHMN. CHENAL: Let's go back to the slide, if I
15 may ask, that showed the connection between I-10 and
16 I-19.

17 MR. BECK: Mr. Chairman, this one?

18 CHMN. CHENAL: Yes.

19 Let me ask a quick question, if I may, just to
20 make sure I -- on the placemap and what we've been
21 referring to as the Sonoran Corridor, which is shown on
22 the placemap, is that the connecting line, the blue
23 connecting line?

24 MR. BECK: Mr. Chairman, yes. Basically, that
25 represents the corridor that has been identified by Pima

1 County as their preference.

2 CHMN. CHENAL: Okay. So the Sonoran Corridor
3 is basically a highway. I guess I was thinking it was
4 going to be something other than just road, power or
5 other things, but it's basically a road that connects
6 I-10 to I-19?

7 MR. BECK: Well, I believe, Mr. Chairman, in
8 the context of where the parties, including Pima County,
9 have looked at this Sonoran Corridor concept, it goes
10 beyond just an interstate connection. It's an interstate
11 connection, it's a railroad connection, and a proximity
12 to the airport, all help to make economic -- really drive
13 economic development in this whole swath that's shown on
14 the map kind of from Interstate 10 all the way across to
15 19, particularly around Raytheon.

16 This is a lot of County land in here that has
17 been identified as a great economic development area. We
18 have had a couple of entities that have approached the
19 County in the past about bringing major projects to
20 Tucson and, you know, the roadway access, rail access
21 and, in particular, energy access was an issue for them.

22 They come in and say, we can build a project
23 maybe in two years and be up and running. Well, the
24 utilities and the roadways and other facilities can't be
25 done in that timeframe. So then they go look elsewhere.

1 So part of the whole effort is to identify
2 those things that could be put in place that will support
3 that future growth and have it ready to go before the
4 need is actually there. And that's -- for TEP, that's --
5 where the Sonoran Substation itself really comes into
6 play, is that we'll be able to provide distribution
7 delivery to this whole area through the Sonoran
8 Substation that we don't have the capacity for today.

9 CHMN. CHENAL: Okay. That's very helpful.

10 So I'm using the laser. But up on the screen,
11 the area where Swan intersects the road in blue is
12 really, on our placemap, what we're concerned about for
13 purposes of the project -- of your project?

14 MR. BECK: That is correct. It's the portion
15 from Swan to the east, that portion that would run over
16 to that property line where we head south under
17 Alternative 2.

18 CHMN. CHENAL: And I can't read that very well.
19 Is that 410?

20 MR. BECK: So I believe ADOT -- I think it's
21 going to be 410 from the Department of Transportation.

22 So just -- maybe if I go through these slides
23 real quick, it will help.

24 CHMN. CHENAL: Sure.

25 MR. BECK: Next one is -- again, there was a

1 need for railroad connection or access as part of this
2 development effort, so the County is working with UPRR
3 and proposing an alignment for a railroad line that would
4 come right along that potential interstate line and that
5 would give transportation access. But, ultimately, the
6 project is being developed by ADOT. The actual highway
7 connection is an ADOT Federal Highway Administration
8 process.

9 Similar to us siting transmission lines,
10 they're out trying to site an interstate highway.
11 They're relatively early in that process. I think they
12 had their first meeting mid 2017. They actually have
13 another meeting coming up towards the end of this month.
14 And they are not too much further than having identified
15 this study area.

16 They do have the proposal from Pima County.
17 They have the proposal from Sahuarita. They have a
18 couple of inputs from public comment that showed some
19 potential routes. But beyond that, they haven't gotten
20 real far in their process, and it's probably a
21 couple-year timeline to go through the EIS to come out
22 with actual proposed corridors. Will it be the County
23 proposed coming through? Would it be Sahuarita or some
24 other combination? It's very early in the process. Hard
25 to say.

1 I think TEP's position is that for various
2 reasons, the risk that it will impact our alignment if we
3 use Alternative 2 is somewhat minimal. There's the issue
4 of the big prison complex to the east of us. There's
5 some open land to the north. Yes, it has some gravel
6 pits and stuff, but ADOT knows how to fill holes.

7 So, you know, there's a lot of opportunities.
8 So we're not too concerned that the likelihood will be
9 that we have to move our lines. As was indicated earlier
10 by Member Noland, the Southline was actually asked to --
11 well, Western was asked to relocate their alignment to
12 what's shown as the Southline alignment I believe at the
13 County's request in their process. And so in that
14 instance, the County supported that movement, but I think
15 there were other reasons they wanted to free up some
16 stuff where the existing line is.

17 So a lot of things at play. But bottom line is
18 if Southline gets built and we're adjacent to them, the
19 likelihood that the highway will come in and take all of
20 our lines and have us move is probably relatively low.
21 So we're willing to take on that potential risk of that
22 relocation cost. And I think from the County's
23 perspective, by us agreeing to do that, they feel that we
24 will not increase the burden to their alignment to ADOT.
25 So it's one less thing ADOT can put on the box to say,

1 No, we -- don't use this alignment because of this cost.
2 At least they tick that box off. Because of all the
3 other things that are out there, the likelihood they will
4 do that we think is somewhat low, and that's why we're
5 willing to take that on.

6 CHMN. CHENAL: All right. We've gone well past
7 the 90-minute mark, and I just think for court reporter
8 purposes and everything else, we should take a short
9 break here. Let's take a ten-, 15-minute break. I know
10 we have public comment at 5:30. Come back and start in
11 about 15 minutes. We can decide how far we want to go,
12 you know, before the 5:30 public comment.

13 I don't know if there's going to be many people
14 that show up. Does the applicant or do any of the
15 intervenors have a sense as to whether or not there's
16 going to be much public comment this evening?

17 (No response.)

18 CHMN. CHENAL: It's an unknown?

19 MR. BECK: We don't really expect to have a lot
20 of public comment.

21 CHMN. CHENAL: Okay. Let's take a short break,
22 and then we'll resume in about 15 minutes.

23 (A recess was taken from 4:40 p.m. to
24 5:10 p.m.)

25 CHMN. CHENAL: All right. Ready to go back on

1 the record.

2 Let's see what the Committee's desire is in
3 terms of how long we proceed, but I'm informed that there
4 may be a person here -- several people who are here for
5 public comment, and there's no use waiting to 5:30 for
6 that. We have time now.

7 So, you know, if there are people here that
8 wish to provide public comment, I think we'd certainly
9 like to hear from you now, and then you won't have to
10 wait for a half hour or how long we have to wait until we
11 have the hearing at 5:30.

12 So is there anyone in the audience that would
13 like to provide public comment?

14 Sir, in the background. Thank you very much.
15 We appreciate you coming today. If you would make sure
16 you fill in the sign-in sheet, and then just come up and
17 provide your name and address and what comments you'd
18 like to make. I'm sorry I didn't ask if you wanted to
19 come up earlier.

20 MR. SHARKEY: Hello. My name is Chris Sharkey,
21 and I live at 5430 East Mouse Trail, the property in the
22 most southeast corner.

23 During the meeting, things are leaning toward
24 the southern alternative, which is a huge relief to me.
25 And I'm curious what circumstances might lead to

1 Alternate 2 on the south side being still a possibility.

2 And, also, for tomorrow on your tour, it's
3 private road, so I think with the tour having been
4 organized, but I welcome you to come to the end. It's
5 the most high area in the neighborhood, and you can get
6 the best view of the effects of the tower from there. So
7 on the tour where you get to the end, just drive to the
8 last house, and I publicly welcome you all to come there.

9 CHMN. CHENAL: Why don't we ask you, sir, if
10 you could use this fancy laser pointer or some other
11 pointer to show where you live. Mr. Beck is providing
12 you a copy. It would help for us to see where you live.

13 MR. SHARKEY: The most southeast corner, the
14 last house in the property. The last house in the
15 neighborhood in the final southeast corner, so among the
16 houses most affected as it's the highest ground, and I
17 would have the towers towering over my house. So it is a
18 concern, but on with the project, and I'm looking forward
19 to getting more information.

20 CHMN. CHENAL: Well, thank you.

21 You know, it's important that people speak up
22 like you just did. We can't give you any assurance which
23 route, but, you know, you've kind of heard the testimony
24 for part of the day, and that's kind of what we base our
25 decisions on. But thank you for your comments. Thanks

1 for showing up. It's important for us to hear what you
2 have to say.

3 Anybody else? Public comment?

4 (No response.)

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

6 So, Ms. DeCorse, if you want to proceed with
7 the questioning of Mr. Beck.

8 Q. BY MS. DECORSE: All right. I believe we are
9 now going to move on to the preferred routes that have
10 been selected for this project.

11 Mr. Beck, if you could please give some
12 background. And I know we've discussed it in your --
13 earlier in your testimony today, but if you could explain
14 the applicant's preferred route.

15 A. Yes. So earlier, we talked about alternative
16 alignments.

17 Ultimately, the preferred routes that we are
18 bringing forward -- and we've touched on this, but just
19 to reiterate.

20 On the northern end, it is Alternative 2, which
21 is the red route that heads east from the corner of Swan
22 and Old Vail Road, heads east to kind of the edge of
23 where the Sonoran Substation would line up, and then we
24 head south down to Sonoran Substation.

25 For the southern portion, we would leave the

1 Sonoran Substation, utilizing the blue route as our
2 preferred, which is Southern 1, head west to Swan Road,
3 and south along Swan till we get to the Cisne Switchyard.

4 Q. And if you could please go into more detail
5 about the corridor with the -- what the company's
6 requesting.

7 A. Yes. So just to review the discussion we had
8 earlier for the northern portion of the project, both
9 Alternative 1 and Alternative Northern 2, we would have
10 three double-circuit structures in portions of that
11 corridor, and we are requesting a 1,000-foot-wide
12 corridor for that. So we would have three 100-foot
13 adjacent right-of-ways within that 1,000-foot corridor.

14 For the southern alignments, for both of those,
15 we would be building the single-circuit construction
16 where we would utilize a 100-foot right-of-way, but we're
17 requesting a 500-foot corridor within which to place that
18 100-foot right-of-way.

19 Q. And did the company also look at the cost for
20 each of these alternatives?

21 A. Yes, we did. And in our application, we have
22 the cost table, which is replicated here on the slide.

23 You can see we've got it listed by the four
24 alternatives. So Northern 1, Northern 2. And we show
25 the various portions of the cost. Construction, the land

1 acquisition, the distance in line miles, and then a total
2 cost for each of the alternatives. They range from 1.75
3 for Southern 1 all the way up to 4.71 for the Northern 2
4 Alternative.

5 CHMN. CHENAL: Question, Mr. Beck. Probably
6 Member Woodall has one too.

7 Land acquisition. Are those estimates?

8 MR. BECK: Yes, they are, Mr. Chairman.

9 CHMN. CHENAL: Because you haven't yet really
10 negotiated prices with the landowners, have you?

11 MR. BECK: No, we have not. So those are based
12 on the best appraisal numbers we have in the area.

13 CHMN. CHENAL: Member Woodall.

14 MEMBER WOODALL: So since we now know that
15 transmission line includes switchyards, my question to
16 you is, does this cost chart include the cost of the
17 switchyard?

18 MR. BECK: This cost chart does not include
19 those costs. And we are researching those numbers, and
20 we should have those for tomorrow.

21 MEMBER WOODALL: Thank you very much, Mr. Beck.

22 CHMN. CHENAL: Could you go back to the
23 previous slide, No. 17.

24 This is an engineering question. So we've
25 talked about the circuits, the lines coming into the

1 Sonoran Substation, then going back out. So on one side
2 would be the lines coming in, the three line -- I mean,
3 the three wires that make up the line, and then there's
4 three wires that make up the line going out again?

5 MR. BECK: Correct.

6 CHMN. CHENAL: You've got to dumb it down, but,
7 I mean, is that correct?

8 MR. BECK: Generally, that's correct,
9 Mr. Chairman. On one side of the structures, that
10 composes one circuit of a transmission line. A
11 transmission line is made up of three phases, so there's
12 an A, B, and C. They could be stacked in any
13 configuration, but they would be on one side. So one
14 side is coming in, say, from Irvington. The other side
15 would be going out to whichever substation is the
16 destination.

17 So you're going to have -- on each of these
18 structures, there will be a line coming in from
19 Irvington, one circuit, then the opposite side will be
20 going to three different substations.

21 CHMN. CHENAL: Now, on the right with the
22 100-foot right-of-way, there's only one circuit on that
23 because that's one circuit from the Sonoran Substation to
24 the Cisne Substation?

25 MR. BECK: That is correct.

1 CHMN. CHENAL: And is power generally flowing
2 in one direction from the solar plant that's proposed to
3 Cisne and then from Cisne to Sonoran?

4 MR. BECK: Yes. In this case, the primary flow
5 will be from the WEC or the Wilmot Energy Center up to
6 the Sonoran Substation for distribution into TEP's
7 system. And, in particular, because we cannot charge
8 those batteries from our system, we won't have it flowing
9 the other direction. If we, in fact, could, then there
10 might be times when we would be charging batteries,
11 especially at night.

12 CHMN. CHENAL: Could that be done with just a
13 single-circuit line, or would you need a second circuit
14 to get the power going the opposite direction?

15 MR. BECK: No. The power would flow in either
16 direction, yes, just depending on the load.

17 CHMN. CHENAL: Thanks.

18 MR. BECK: So just real quickly on the cost
19 issue, if you look at the cost of the Northern 2/
20 Southern 1, there's about a 7 percent difference going
21 with Alternative 2 than Alternative 1 because Alternative
22 2 is slightly more costly. But on the overall project,
23 it's an impact of approximately 7 percent.

24 CHMN. CHENAL: Member Woodall.

25 MEMBER WOODALL: So, Mr. Beck, who is going to

1 actually be paying for the southern lines? Is it going
2 to be Tucson Electric Power or will it be the proposed
3 interconnector?

4 MR. BECK: In this instance, it will be Tucson
5 Electric Power. So in some instances, where there is a
6 generator lead line that the only purpose it has is for
7 connecting that generator to the system, that would be
8 paid for by the generator.

9 TEP has other long-term interests in owning the
10 line down to Cisne for future interconnections to other
11 substations that are outside of our planning window right
12 now, so we want to have control of that line.

13 And, ultimately, the way the power purchase
14 agreement was set up with NextEra, NextEra gave us a
15 purchase -- power purchase price, but they have a clause
16 that in addition to the base price, there is any adder
17 for interconnection facilities because neither one of us
18 knew at the time the bid was received what those
19 interconnection costs would be. So because TEP is the
20 off-taker, we would ultimately be paying for those costs,
21 whether it be a payback to NextEra because they paid for
22 it or we pay for it up front.

23 MEMBER WOODALL: So when we find out what the
24 cost of the switchyard is, the way the financial
25 transaction will work is what? Does somebody pay money

1 up front?

2 MR. BECK: In this instance, the plan is that
3 TEP will just front the whole cost of this project.

4 When we --

5 MEMBER WOODALL: And then how will TEP be
6 reimbursed for ...

7 MR. BECK: In a future rate case, it would be
8 part of the rate case and recovery through the retail
9 rate.

10 MEMBER WOODALL: Thank you.

11 Q. BY MS. DECORSE: Is there anything further you
12 wanted to discuss on the cost of the lines?

13 A. No.

14 Q. And I know that you had mentioned proposed CEC
15 conditions, but has the company provided a proposed CEC
16 in this case?

17 A. Yes, we have. So we provided a proposed CEC as
18 Exhibit TEP-12. It was filed in Docket. We based the
19 CEC that we proposed on our preferred alignments. So
20 with the assumption that that ultimately gets approved by
21 the Committee, that is the language that's reflected in
22 the draft.

23 And then for the conditions within the CEC, we
24 based them on our last case where we worked pretty
25 diligently with the Committee to try and create a base

1 set of conditions that would work going forward.

2 One exception or one change we are proposing in
3 this set of conditions is we have removed the previous
4 condition that was regarding the -- I'm having trouble
5 reading. It's the Court --

6 CHMN. CHENAL: Sierra Court.

7 MR. BECK: Sierra Court community because they
8 are not part of this case. So that specifically was for
9 us to work with them as property owners. We are deleting
10 that one, and we have added a Condition 24, which is
11 shown on the slide on the right-hand side. This is
12 relative to the issue from Pima County.

13 So our proposed condition reads that:
14 Applicant agrees to relocate new facilities parallel to
15 the East Old Vail Connection Road pursuant to the
16 Northern 2 Alternative under this Certificate, at
17 Applicant's cost, should those facilities conflict with
18 the future ADOT plans for interstate construction.

19 Q. BY MS. DECORSE: And would you like to
20 summarize the key points of your testimony today?

21 A. Yes.

22 So the Wilmot Energy Center is needed by TEP to
23 further our goal of 30 by '30 or 30 percent renewable
24 generation by 2030, and this particular project is needed
25 to connect the Wilmot Energy Center to TEP's system.

1 TEP performed public outreach to solicit
2 concerns and interest in routes. Our preferred route
3 meets the interest of the public as well as the
4 jurisdictions and landowners over whose property the
5 project would be built.

6 We believe it balances the environmental impact
7 against need for the line, and ultimately TEP is
8 requesting that the Committee approve the preferred
9 routes for the project.

10 MR. DERSTINE: I've been nudging Ms. DeCorse
11 because I think the question that came to me from Member
12 Haenichen, and I want to make sure that at least you have
13 an opportunity to address it now or if it's better to
14 wait until tomorrow, we do that. But Member Haenichen
15 had a good question for me on using battery storage at
16 the Wilmot Center.

17 Much of the RICE case focused on the need for
18 the RICE for intermittency, and yet, while the Sierra
19 Club and others were urging that battery storage would
20 provide a solution or an alternative to the RICE engines,
21 I just want to make sure you had an opportunity to
22 address that question.

23 Why are we using or why does the Wilmot Energy
24 Center utilize a battery when we said a battery was not a
25 substitute for the RICE generation?

1 And I think that goes to your question, Member
2 Haenichen. And if I didn't phrase it right, please --

3 MEMBER HAENICHEN: Wasn't as cost effective.

4 MR. DERSTINE: Wasn't as cost effective.

5 MR. BECK: Yes. So relative to the RICE
6 engines, they're available 24/7 for use for backing up
7 and balancing our system. Battery storage is only good
8 as long as the battery is still charged.

9 We have limitations on this particular battery
10 as a result of tax credit issues that it can only be
11 charged from the solar that it's connected to, so it puts
12 some limits on when we can call on it and how we can
13 utilize it.

14 The battery technology is still very early and
15 it's in its infancy. And so we see this 30 megawatts as
16 a very good test case to see what it can do for our
17 system, but we haven't reached the point of thinking that
18 it will resolve all issues for us.

19 Again, as the battery technology improves, it
20 likely will be the future for the electric system, but we
21 don't feel it's quite there yet. But we want to use this
22 as a test case.

23 MEMBER HAENICHEN: So is TEP paying for the
24 battery?

25 MR. BECK: It's embedded -- the cost of the

1 battery is embedded in the power purchase agreement that
2 we have. So we get the use of the battery to the extent
3 we can use it for the purchased power price that we're
4 agreeing to pay.

5 And as I indicated earlier on, at least at the
6 time we entered this agreement back in May of 2017, it
7 was the lowest cost combination of solar and battery at
8 that time. There have been a couple more recent that
9 have gone down slightly below what ours were.

10 Again, some of the devil is in the details of
11 exactly what you can use a battery for and what they're
12 giving you. And so you see a headline that says lowest
13 cost or this one is lower than that one, it's really hard
14 to determine whether that's correct because it's all in
15 the details.

16 MEMBER HAENICHEN: So if you should do it this
17 way and then, let's say, a year later decide, Boy, it
18 really isn't cost effective, is that going to be stranded
19 cost for you in your power purchase agreement forever?

20 MR. BECK: Well, we would have that power
21 purchase price from this project for the 20-year life of
22 the contract.

23 So if the batteries don't work at all, we're
24 going to have a big issue with NextEra and have some
25 discussions with them and try and resolve those issues.

1 But, ultimately, the purchased power price that we've
2 agreed to is what we will pay regardless.

3 MEMBER HAENICHEN: Thank you.

4 CHMN. CHENAL: Member Woodall.

5 MEMBER WOODALL: Mr. Beck, I realize you're the
6 transmission arm, but are you generally familiar with the
7 Commission's Integrated Resource Planning efforts?

8 MR. BECK: Yes, I am.

9 MEMBER WOODALL: My recollection is, is that
10 there was some encouragement by the Commission for
11 various utilities to look into battery storage because
12 folks had said that the intermittency of renewable made
13 it less cost effective.

14 So was part of TEP's rationale for including
15 batteries related to the Commission's expressed interest
16 in understanding how batteries could help integrate
17 renewables?

18 MR. BECK: It was a -- had a direct -- it was a
19 driver in our decision to use batteries.

20 As you know, our IRP was not accepted, so we're
21 not sure if the Commission really agreed with our
22 proposals. But our IRP was based on Commission direction
23 and our attempts to try and meet those -- that direction.

24 MEMBER WOODALL: Thank you, Mr. Beck.

25 CHMN. CHENAL: All right. I think this is a

1 good time to take our afternoon recess. And then when we
2 come back tomorrow, we'll have the tour. And when we
3 come back after the tour, we'll provide Mr. Robertson and
4 Mr. Schmaltz an opportunity to ask any questions of
5 Mr. Beck before we turn it back for any redirect and the
6 opening up to the questioning of the other panel members.

7 So if there's any procedural matters we need to
8 discuss -- otherwise, breakfast is being provided in the
9 morning, and then we'll have the tour at 9:00, and we'll
10 resume the hearing at 1:00.

11 MR. BECK: Mr. Chairman, just to remind the
12 Committee, it's in the Ironwood Room tomorrow.

13 CHMN. CHENAL: Okay. All right. Thank you.

14 So let's adjourn for this evening, and then
15 we're going to open it up and see if there's any public
16 comment here. Doesn't look like there will be.

17 Mr. Robertson.

18 MR. ROBERTSON: Mr. Chairman, may we leave our
19 materials here?

20 CHMN. CHENAL: Yes. The question is, is can we
21 leave the materials in the room? And I want confirmation
22 from the applicant. But in past hearings here, they've
23 been secured.

24 MR. BECK: Yes, Mr. Chairman, the room will be
25 secured.

1 CHMN. CHENAL: Okay. Looking for an answer.

2 Okay. So anything further?

3 (No response.)

4 CHMN. CHENAL: If not, we'll adjourn. The
5 hearing will resume tomorrow at 1:00 for the benefit of
6 Committee members and members of the public.

7 So we are adjourned for the evening.

8 (The hearing portion adjourned at 5:33 p.m.)

9 (Beginning of public comment hearing.)

10 CHMN. CHENAL: Now, moving at light speed into
11 the next portion of the hearing is the time set for
12 public comment, 5:30, the first day of the hearing.

13 Is there anyone here who wishes to provide
14 public comment?

15 (No response.)

16 CHMN. CHENAL: There doesn't appear to be
17 anyone here who is here to provide public comment.

18 Like I said previously, we'll provide ample
19 opportunity for the public to come and if they come at
20 any other time and if anyone is aware of any member of
21 the public in the audience that's here and they wish to
22 give public comment, please let me know, and we'll take
23 them out of order as a convenience to them.

24 So if there's no one here to provide any public
25 comment at this time, we'll adjourn for this evening.

1 Thank you very much, and we'll see everyone
2 tomorrow for the tour, if you're going on the tour. If
3 not, the hearing will resume at 1 p.m. tomorrow
4 afternoon.

5 Thank you very much.

6 (The hearing recessed at 5:34 p.m.)

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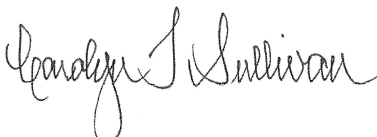
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1 STATE OF ARIZONA)
2 COUNTY OF MARICOPA)

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

9 I CERTIFY that I am in no way related to any of
10 the parties hereto nor am I in any way interested in the
11 outcome hereof.

12 I CERTIFY that I have complied with the ethical
13 obligations set forth in ACJA 7-206(F)(3) and ACJA
14 7-206(J)(1)(g)(1) and (2). Dated at Phoenix, Arizona,
15 this 1st day of October, 2018.

16
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18 _____
19 CAROLYN T. SULLIVAN, RPR
20 Arizona Certified Reporter
21 No. 50528

22 I CERTIFY that COASH & COASH, INC., has complied
23 with the ethical obligations set forth in ACJA
24 7-206(J)(1)(g)(1) through (6).

25 

COASH & COASH, INC.
Arizona Registered Firm
No. R1036