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BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE

| | | |
|--------------------------------------|---|---------------|
| IN THE MATTER OF THE APPLICATION OF |) | DOCKET NO. |
| SONORAN SOLAR ENERGY, LLC, IN |) | L-00000UU-11- |
| CONFORMANCE WITH THE REQUIREMENTS OF |) | 0337-00162 |
| ARIZONA REVISED STATUTES, SECTIONS |) | |
| 40-360, et seq., FOR A CERTIFICATE |) | |
| OF ENVIRONMENTAL COMPATIBILITY |) | CASE NO. 162 |
| AUTHORIZING CONSTRUCTION OF A 500KV |) | |
| GEN-TIE LINE AND SWITCHYARD |) | |
| ORIGINATING AT THE PROPOSED SONORAN |) | |
| ENERGY SWITCHYARD AND TERMINATING AT |) | |
| THE JOJOBA SUBSTATION AND ASSOCIATED |) | |
| SWITCHYARD LOCATED IN MARICOPA |) | |
| COUNTY, ARIZONA. |) | |
| |) | |

At: Goodyear, Arizona
 Date: October 25, 2011
 Filed: October 28, 2011

REPORTER'S TRANSCRIPT OF PROCEEDINGS

ARIZONA REPORTING SERVICE, INC.
 Court Reporting
 Suite 502
 2200 North Central Avenue
 Phoenix, Arizona 85004-1481

By: COLETTE E. ROSS
 Certified Reporter
 Certificate No. 50658

Prepared for:

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1 BE IT REMEMBERED that the above-entitled and
2 numbered matter came on to be heard before the Arizona
3 Power Plant and Transmission Line Siting Committee at
4 the Hampton Inn & Suites, 2000 North Litchfield Road,
5 Goodyear, Arizona, commencing at 9:31 a.m. on the 25th
6 of October, 2011.

7

BEFORE: JOHN FOREMAN, Chairman

8

9 DAVID L. EBERHART, Arizona Corporation
Commission

10 BRET PARKE, Department of Environmental
Quality

11 JACK HAENICHEN, Arizona Governor's Office of
Energy Policy

12 MICHAEL J. LACEY, Department of Water
Resources

13 JEFF MCGUIRE, Agriculture, Appointed Member

14 DAVID RICHINS, Cities/Towns, Appointed Member

15 PAUL WALKER, Public Member

PATRICIA NOLAND, Public Member

16 MICHAEL PALMER, Public Member

17

18 APPEARANCES:

19

For the Applicant:

20

JENNINGS, STROUSS & SALMON. P.L.C.

21 By Mr. Kenneth C. Sundlof, Jr.

The Collier Center, 11th Floor

22 201 East Washington Street

Phoenix, Arizona 85004

23

24

COLETTE E. ROSS

Certified Reporter

25

Certificate No. 50658

1 CHMN. FOREMAN: My name is John Foreman. I am
2 Chairman of the Arizona Power Plant and Transmission
3 Line Siting Committee. This is a meeting of that
4 Committee to consider the application of Sonoran Solar
5 Energy, LLC for a Certificate of Environmental
6 Compatibility to build a transmission line in the
7 southern Maricopa County area, not too far from where we
8 are presently located.

9 We have hopefully everybody that we need to get
10 started here. We have some members of our Committee
11 here. Why don't I start with a roll call just to make
12 sure we have on the record who we have present.

13 Member Eberhart.

14 MEMBER EBERHART: Here.

15 CHMN. FOREMAN: Member Parke.

16 MEMBER PARKE: Here.

17 CHMN. FOREMAN: Member Haenichen.

18 MEMBER HAENICHEN: Here.

19 CHMN. FOREMAN: Member Lacey.

20 MEMBER LACEY: Here.

21 CHMN. FOREMAN: Member Rodriguez.

22 I don't believe she will be here; she recently
23 had surgery.

24 Member McGuire.

25 (No response.)

1 CHMN. FOREMAN: Member McGuire we hope will be
2 here but hasn't appeared as yet.

3 Member Richins.

4 MEMBER RICHINS: Here.

5 CHMN. FOREMAN: Member Walker.

6 MEMBER WALKER: Here.

7 CHMN. FOREMAN: Member Palmer.

8 MEMBER PALMER: Here.

9 CHMN. FOREMAN: And Member Noland.

10 MEMBER NOLAND: Here.

11 CHMN. FOREMAN: All right. Let me ask counsel
12 for the applicant, are you ready to proceed?

13 MR. SUNDLOF: Thank you, Your Honor, members of
14 the Committee. I am Kenneth Sundlof with the law firm
15 Jennings, Strouss & Salmon, and we are ready to proceed.

16 CHMN. FOREMAN: Would you want to start by
17 introducing those who will be with you today from your
18 firm, and we can go then -- well, before we go to
19 witnesses, we have a legal issue to address, but who
20 will be with you here on your staff assisting you?

21 MR. SUNDLOF: Assisting me on our staff is
22 Michele Maser, who is to my left.

23 CHMN. FOREMAN: All right. We have kind of an
24 interesting legal issue that I wanted to raise with the
25 members of the Committee initially.

1 If you will look on the placemat and also on the
2 board, or the projector that's in front of us now, let
3 me make sure that I understand this correctly. So,
4 Counsel, please correct me if I am wrong. It appears
5 that we have the proposed and alternative routes for the
6 transmission line going from a black square which is
7 inside the area, where I understand that the solar
8 generator will be located, down to the Jojoba
9 substation. If you will note the dark red dash is the
10 proposed line. Is that my understanding?

11 MR. SUNDLOF: That's the preferred alignment,
12 yes.

13 CHMN. FOREMAN: Preferred alignment. And the
14 other dash and dot red line, Counsel?

15 MR. SUNDLOF: Is the alternative alignment.

16 CHMN. FOREMAN: Now, it is my understanding from
17 reading the documents and from our previous discussions
18 that the only difference between the proposed line and
19 the alternative line is on land that is within the
20 jurisdiction of the Bureau of Land Management, is that
21 correct?

22 MR. SUNDLOF: It is correct. Other than
23 3 percent that -- the white square by the Jojoba
24 substation, the entire alignment of both routes is
25 within BLM land and in the utility corridor.

1 CHMN. FOREMAN: And I wanted to call this to the
2 attention of the members of the Committee initially, and
3 hopefully to the Corporation Commission as they review
4 this, that this Committee and the Commission have
5 jurisdiction over this decision because of the
6 approximately .1 mile or .2 miles of transmission line
7 that appear on private land.

8 And the only -- there are two decisions that we
9 need to make. One is should the line be built at all,
10 and secondly, which alternative path should be selected.
11 And the alternative paths are both on federal land, not
12 on state land.

13 So I raise that as an issue. And I previously
14 raised it with counsel, and I have asked counsel to
15 address the input from the Bureau of Land Management
16 during the NEPA process so that we can be informed by
17 what their preferences are as we make a decision about
18 where the line should be built on what is their land.

19 So I just wanted to point out this anomaly as we
20 begin. I talked before, and I know you have all heard
21 me, about the importance of reforming the Arizona line
22 siting process. And one of the things that's, I think,
23 vital is to integrate that process with the federal
24 process, where, as in Arizona, we have so many
25 transmission lines and power generation sites that are

1 on federal land or both federal and state land.

2 So with that preliminary, let me ask counsel if
3 you are ready to proceed.

4 MR. SUNDLOF: Thank you, Your Honor. We are
5 ready to proceed.

6 CHMN. FOREMAN: Please do.

7 MR. SUNDLOF: Good morning. Welcome to
8 Goodyear. I am Kenneth Sundlof, again with the law firm
9 Jennings, Strouss & Salmon, and I am proud to be here
10 before you to present the Sonoran Solar Energy project.

11 Let me begin by apologizing to you, particularly
12 Michael Lacey. This is his first case. This is about
13 as boring a case as you are going to see. This is 3.2
14 miles of transmission. It is in the middle of what can
15 charitably be described at low quality desert
16 environment. It is in the middle of a bunch of other
17 transmission structures.

18 There are no homes anywhere nearby. There are
19 no businesses anywhere nearby. There are no people that
20 work anywhere nearby other than the landfill and the
21 prison, which is actually quite a distance away. There
22 are no special status species that make this their home.
23 There are no historic buildings. It is about as clean a
24 project as you are going to get.

25 It is located almost entirely on Bureau of Land

1 Management land and within a quarter that has been
2 designated by the Bureau of Land Management through the
3 public process as the appropriate place to put utility
4 infrastructure. You will see that the corridor is full
5 of other lines. It is full of natural gas lines to the
6 south. This is the place to put it.

7 Additionally, as you see, there are no
8 intervenors. We have had no public opposition. We have
9 had support by the Sonoran Institute, environmental
10 groups, fish and game or Game & Fish, Town of Buckeye,
11 Town of Goodyear, all supporters, no opponents
12 whatsoever.

13 I don't think we have too many people here to
14 speak in opposition, except for there is one issue that
15 I do want to get to later, but this is about as easy of
16 a project that you are going to get.

17 Putting one more exclamation point on the
18 project, this project has gone through an extensive
19 federal process under the National Environmental
20 Protection Act. Under that federal process, the Bureau
21 of Land Management as the lead agency looked at many
22 environmental criteria. It went through an extensive
23 public process. It engaged every stakeholder that
24 wanted to be engaged, including Department of Water
25 Resources, Game & Fish, Town of Buckeye, Town of

1 Goodyear.

2 And the final environmental impact statement,
3 which is the final product of this extensive process,
4 has come out and it is in your package. It is the -- we
5 didn't reproduce the whole thing, it is two volumes, but
6 it is the CD that's in your package. It basically finds
7 that there are no -- I mean that, you know, it goes
8 through all the environmental factors and finds there is
9 no reason not to approve this project.

10 Yet I am very excited about what we are doing
11 here. What we are doing here is providing a link to a
12 very important project. I want to start with the --
13 there is the 3.2 miles of transmission that I am showing
14 you on Exhibit 6, and there are two alignments that I
15 will get to later. On the west side or the left side of
16 the screen is the existing Jojoba substation.

17 Now, if you ever drive down to San Diego, or
18 even if you drive to Gila Bend, you may take the route
19 where you go on Interstate 10 and then you cut down on
20 State Route 85 to Gila Bend, and then you go off to
21 San Diego. Well, the Jojoba substation is right east of
22 State Route 85. And if you are paying attention when
23 you are driving down, and hopefully you are looking at
24 the road, but if you were looking to your left you can
25 see the Jojoba substation. It has been there for a long

1 time, and it is run by Salt River Project and owned by
2 the Palo Verde participants. So you can see it from
3 State Route 85. There is State Route 85 on Exhibit 7.
4 The Jojoba substation is a fairly short distance from
5 85.

6 Jojoba substation is important because this
7 substation gives a link to the entire transmission
8 structure in the west. It is a short distance from the
9 Palo Verde switchyard and the Hassayampa switchyards
10 which, as you know, are the marketplace for the
11 southwest. And from Palo Verde the power coming in from
12 that line can go into the valley, it can go to
13 California, it can go up to Nevada, it can go up to
14 northern California. It gives great flexibility to be
15 able to bring our power line to many different
16 locations.

17 Plus, if you go to the east, you may recall the
18 southeast valley line that you sited several years ago,
19 it comes into Pinal West, it comes into Pinal Center, it
20 comes into Browning and into the east valley, Mesa area.
21 It also has links to Tucson. So it allows flow of power
22 from Jojoba to the east, to the west, to the north. It
23 is a wonderful place to be linking a transmission line.

24 Now, on the other side, this is the exciting
25 part of this project, the other side is a 300 megawatt

1 solar photovoltaic generating facility.

2 Let me first talk about a bit of an anomaly in
3 our siting statutes, and I am sure Chairman Foreman has
4 talked about this before.

5 When the siting statutes were drafted in the
6 1970s, there was a thought that we didn't want to be
7 siting hydroelectric generating facilities. So the way
8 the language was written, it is written that, subject to
9 siting, and only generation facilities that are thermal
10 generating facilities, intent is to exclude hydro.
11 Nobody thought about solar photovoltaic.

12 But now we have solar photovoltaic. And it is
13 not thermal generation. It does not use heat to
14 generate power. So for that reason, even though we are
15 talking about a 300 megawatt generation facility, it is
16 not before the Committee and we are unable to present
17 that to you because of this anomaly in the statute. It
18 may be something that will be fixed at a later time, but
19 right now, that is why that's not before you.

20 So we have got only before you what we call the
21 gen-tie link between the 2,000 acre solar facility and
22 the Jojoba substation which gives access to the entire
23 transmission grid.

24 CHMN. FOREMAN: Let me interrupt you there,
25 Counsel.

1 Member Eberhart, you had a question?

2 MEMBER EBERHART: Thank you, Mr. Chairman.

3 Mr. Sundlof, I did take the liberty of looking
4 at the website for this project. And it talks about a
5 375 megawatt concentrating solar project. It doesn't
6 talk about a photovoltaic project. Has the website been
7 updated in the last week or so?

8 MR. SUNDLOF: I believe, I believe the website
9 has been updated, because that was the old plan and that
10 has been changed for some time. And the environmental
11 impact statement was modified in order to consider
12 photovoltaic as one of the options. So I'm not sure
13 exactly what is on the website.

14 Paul, is it --

15 MR. PETRY: I would say on the Sonoran Solar
16 Energy Project website we talk about the photovoltaic
17 option. It may have been the BLM website that you
18 looked at that talks about alternatives that were
19 considered in the EIS, which include the concentrating
20 solar option.

21 MEMBER EBERHART: Okay. If you could check
22 that, I would appreciate it.

23 MR. SUNDLOF: I will check it. Thank you.

24 MEMBER EBERHART: We don't want incorrect
25 information out there.

1 MR. SUNDLOF: Right.

2 Let me talk a minute about the more exciting
3 part of the project, which is the 300 megawatt solar
4 photovoltaic.

5 300 megawatts is a big project. This would
6 cover 2,000 acres. It is built in three phases. From
7 left to right you can see them marked off on the
8 crosshatched area on Exhibit 7. At full buildout it
9 would be 300, 300 megawatts, clean, solar photovoltaic
10 technology. This is the same thing you would see on
11 your rooftops. You may see in your rooftop a three
12 kilowatt unit that maybe has 10 or 12 panels. This
13 project at full buildout will have 1.2 million panels.

14 So it is one of the largest projects that you
15 would see in the United States and elsewhere using
16 photovoltaic technology.

17 Photovoltaic technology is, it is preferred.
18 And the reason that -- and I will get to this later --
19 the reason it switched from concentrated solar to
20 photovoltaic is because photovoltaic uses no water for
21 cooling. It directly produces electricity from the
22 panels. So there is no steam generation unit. There is
23 no natural gas use. The only water that's used is to
24 wash the panels now and then and for just regular
25 domestic uses. The profile is lower, no noise. I mean

1 all in all it is a very clean and environmentally
2 sensitive technology, and that is one of the reasons
3 that it was changed.

4 And the other reason we are going to get to
5 later is that the price of solar photovoltaic is coming
6 down significantly. And the economics for photovoltaic
7 are much more favorable than concentrated solar.

8 Now, I am sure that those of you who have been
9 here for awhile are saying okay, we have seen these
10 projects before and a lot of them haven't gone, what
11 about this one, is this really going to get built or are
12 we just doing the permitting. And let me talk about
13 that a little bit.

14 Times have changed. I mean it used to be that a
15 utility, a traditional utility would identify a need for
16 load and would plan and build generation facilities. We
17 don't have that anymore. We have third-party merchant
18 power producers planning and building facilities.

19 And frankly, there is some competition in this.
20 And yes, there will be some of these projects that will
21 make it and some of these projects that won't make it.
22 And we have seen some of them that you have already
23 sited that apparently have not made it because of one
24 reason or another.

25 I do want to emphasize that this project has a

1 very high chance of being successful. And there are a
2 number of reasons for it.

3 May I have the next slide.

4 The application that you have before you is
5 filed by Sonoran Solar Energy, LLC. And on your right,
6 Exhibit 5, you will see solar Sonoran Solar Energy, LLC
7 as part of an overall organization chart. It is a
8 wholly-owned company from NextEra Energy Resources,
9 which is wholly owned by NextEra. NextEra is one of the
10 major power generation producers and operators in the
11 United States. It has sister companies of Florida Power
12 & Light, which is one of the largest investor-owned
13 utilities in the United States, regulated utilities, and
14 has another Texas subsidiary called Lone Star.

15 Can I have the next slide.

16 NextEra is a major operator of both renewable
17 and nonrenewable energy facilities. You may remember
18 that you have seen NextEra already with respect to the
19 Perrin Ranch wind project that was up north of
20 Flagstaff. Same company.

21 On the map which is Exhibit 4 you will see all
22 the different states and provinces of Canada where
23 NextEra Energy Resources has activities. And we will
24 give you more detail about the scope of those
25 activities, but it is over 1800 megawatts of power

1 located across 24 states and Canada. You will notice
2 that Arizona isn't green yet, but it will be soon
3 because the Perrin Ranch project is actually under
4 construction as we speak and will be up and running next
5 year.

6 So the first point is we have a very strong
7 operator, a very proven track record, somebody that has
8 the financial and technical wherewithal to get this
9 done, very attractive to those utilities who need solar
10 energy in their renewable portfolio.

11 CHMN. FOREMAN: Counsel.

12 MR. SUNDLOF: Yes.

13 CHMN. FOREMAN: I apologize again for
14 interrupting you, but we have a spirited group this
15 morning and Member Haenichen has got a question.

16 MEMBER HAENICHEN: I just wanted to correct
17 something you said. You said 1800 megawatts. It is
18 18,000.

19 MR. SUNDLOF: That's a big difference. Thank
20 you. It is 18,000 megawatts.

21 Let me have the next slide.

22 So first you have got a really strong developer.
23 And, you know, the utilities that are serving load are
24 not interested so much in working with somebody who is
25 not proven. We have a developer who is proven. That is

1 very attractive to the utilities who need solar energy
2 to meet their own commitment and to meet the renewable
3 portfolio energy standards imposed on them by regulators
4 or their boards.

5 Second, this project is situated very, very
6 well. As I mentioned before, it connects directly by
7 3.2 miles into the Jojoba substation, which gives it a
8 tremendous opportunity to deliver the power effectively
9 and efficiently to all sorts of different markets,
10 including, of course, central Arizona, southern Arizona,
11 southern California and Nevada, northern California,
12 very attractive project.

13 Third, it is the right technology. We have seen
14 a couple of solar thermal projects that didn't ever get
15 built. And that's because of the cost differences
16 between photovoltaic and solar thermal. You have got a
17 company here who is able to build this thing in the most
18 efficient pricing possible. They are able to get panels
19 efficiently. They are able to build efficiently,
20 operate efficiently. All of this brings the cost down
21 to the customer, to the load-serving entity, to the
22 customer to make this project very attractive. So any
23 guarantees, I don't think there is any guarantees of
24 anything, but if any of the projects are going to make
25 it out of the many that are out there, this is one that

1 has a very high chance of success. And that's why it is
2 an exciting process.

3 Let me talk a little bit more about the project
4 itself. As I mentioned several times now, we are
5 talking about 3.2 miles of transmission starting in the
6 project, the generation project substation, which would
7 be a new substation, traveling west to the Jojoba
8 substation. The northern alignment is the preferred
9 alignment. NextEra really didn't want the southern
10 alignment. We put it in there because we advised them
11 to have two options before you guys, but the northern
12 one is certainly the preferred for a number of reasons
13 that we will get into.

14 CHMN. FOREMAN: And, Counsel, let me underscore
15 what you just said. It is my understanding in the past
16 both the Committee and the Corporation Commission have
17 expressed an interest in having more than one option for
18 applications of this sort.

19 MR. SUNDLOF: That's why I gave that advice.

20 As you can see on the map, Exhibit 3, it shows
21 the different land uses. And the light yellow is all
22 federal land managed by the BLM. So the south, the
23 crosshatched area, is the Sonoran Desert National
24 Monument. On the west side is some state trust land.
25 But the project does not touch any state trust land.

1 And then there is a small square just north of Jojoba
2 that is private land that will be acquired by the
3 project when this transmission is built.

4 The dark yellow that you see are designated
5 Bureau of Land Management utility corridors. And these
6 are corridors that were designated in order that you
7 don't have utility lines running all over the place on
8 federal land, so you focus them on the right location.

9 There is a public process to determine these
10 federal corridors. And BLM some time ago went through a
11 public process to determine that these dark yellow areas
12 are designated corridors for BLM. As you can see, both
13 alternatives are well within the utility corridor and of
14 course preferred by BLM for that reason.

15 Third, you will see -- and I don't know if you
16 have had a chance to look at this -- this is an area
17 that is surrounded by other existing transmission. You
18 see coming up from the south are two lines that come
19 from the Gila Bend generating station down by Gila Bend,
20 Gila River generating station by Gila Bend. Those are
21 two lines.

22 You see coming from the west, from Palo Verde,
23 two lines, one interconnecting to the substation, one
24 not. You see another line running east from Jojoba and
25 then running to the northeast. That's the Kyrene line

1 that goes into the Kyrene generating station in Tempe.

2 Then you see a line running to the west and then
3 a little bit to the southwest. And that is the link of
4 the basically Palo Verde to Browning total structure.
5 In other words, it goes through the Hassayampa
6 switchyard which is part of Palo Verde. It goes by
7 Jojoba, but it can link in the future into Jojoba. It
8 goes down to Pinal West, goes to Pinal Central, goes
9 into the new Abel substation, goes up to Browning in
10 east Mesa.

11 You also see a few other lines. Here is, the
12 blue is an APS 230 line. And then there are 69 lines,
13 both APS lines, that are the yellow kind of coming in
14 from the north and branching out either direction.

15 And then finally south, and this is quite a
16 distance from the proposed alignments, but to the south
17 you have a number of natural gas lines, both El Paso and
18 Transwestern, which are also at the edge of the utility
19 corridor and within the utility corridor.

20 So if you look at our proposed alignments, got
21 transmission on one side, you got transmission on the
22 other side, you got transmission on all sides. So it is
23 a good spot to put transmission, yet you have got enough
24 separation, and we will get into this, for reliability
25 and safety's sake.

1 As I mentioned -- and this is, I think, maybe
2 icing on the cake -- we went through this extensive
3 environmental impact statement. This is, as I
4 mentioned, a process required by the National
5 Environmental Policy Act of 1969. It is a way for
6 federal agencies to evaluate environmental impacts and
7 weigh them in their decision making process.

8 The NEPA process can take different levels. It
9 could be nothing. It can be what they call an
10 environmental assessment, which is a lower level
11 process, or it can be an environmental impact statement,
12 which is the highest level process. And on this
13 particular project, not because of the transmission
14 line, we would have probably not needed an EIS project
15 for transmission, but because of the 2,000 acres of
16 solar that's located on federal land, the Bureau of Land
17 Management decided to conduct a full-blown environmental
18 impact statement, which is a process which is now
19 concluded, concluded last week, and you have a final EIS
20 report in front of you.

21 The EIS also allows the lead agency, which was
22 BLM, to work with other cooperating agencies. And it
23 worked with City of Goodyear, Town of Buckeye, Game &
24 Fish, and also worked with Department of Water Resources
25 as cooperating agencies. It also had scoping meetings,

1 did a draft environmental impact statement subject to
2 final comment, has finally published its final
3 environmental impact statement which is also subject to
4 public comment.

5 To get to Committee Member Eberhart's question,
6 when this process was first envisioned, it was
7 envisioned as a solar thermal project. And you may
8 recall seeing some of those before. This is where you
9 use mirrors to concentrate the heat of the sun onto a
10 fluid which gets superheated, and then runs a
11 conventional steam turbine. Some of these have molten
12 salt storage, some have other kinds of storage, but
13 that's basically concentrated thermal technology.

14 That's what it started as. And when this
15 project was first planned in 2008, concentrated solar
16 thermal was considered to be the best way to go. The
17 price of solar photovoltaic panels were high.

18 But as the project progressed, the economics
19 changed. And so what you see in the EIS, you see a lot
20 of comments from the public about water use, because if
21 you are using concentrated solar, you are using a lot of
22 water because you are using water for cooling the steam
23 and the steam cycle of the steam generators. And so it
24 is somewhat water intensive.

25 Also the concentrated solar uses natural gas to

1 some extent, because if you have molten salt storage you
2 have to be able to keep that warm at times of high cloud
3 cover. And so there will be some use of natural gas,
4 and so the water, and then the footprint is a little bit
5 higher and a little bit more visible.

6 When you are talking about solar panels, these
7 are just a sea of panels, looks like a lake. But with
8 steam generators and all that, there is a little bit of
9 different profile.

10 So you had a different process, a different
11 project at the beginning. But as we went through the
12 EIS project, the prices of solar panels started coming
13 down significantly, new technologies, new manufacturing
14 techniques. You guys are all familiar with First Solar
15 here in the valley, and there are a number of others
16 throughout the world, who are bringing the prices of
17 solar panels down very quickly.

18 And so very quickly, you know, during this time,
19 the economics shifted. And I am going to have a witness
20 here, that is not part of this application, but is going
21 to talk to you about how that happened and what are the
22 economics between solar thermal and solar photovoltaic.

23 But at a point, NextEra made the decision to
24 switch the project and switch it to PV. This resulted
25 in a couple things. First, water use is now minimal, it

1 is like 1/100th of what it might have been; no natural
2 gas use; able to reduce the footprint of the project a
3 little bit, which is a good thing; and to improve the
4 economics of the project.

5 So to answer your question, as you look through
6 the EIS you will see it started as a thermal project and
7 it converted to solar photovoltaic. And that's what we
8 are, that's the plan right now; although, as I
9 mentioned, this project is not before you.

10 I do want to mention that we have one person in
11 the room, one gentleman in the room named Jason McDonald
12 who is here representing the Taurus Consulting Law
13 Group. And he is here for one reason, and that's to
14 discuss Condition 19 in our proposed CEC.

15 Condition 19 is the condition that required us
16 to make good faith efforts to use local labor in
17 building this project. And of course, it is the intent
18 to use local people as much as possible. A lot of this
19 work is -- the people are very qualified in the local
20 area to do this work and the intention is to do that.

21 We had changed the condition a little bit from
22 the Perrin Ranch condition that you guys approved in
23 Perrin Ranch because we thought the language was a
24 little bit confusing. We have talked to Mr. McDonald,
25 and we are agreeable to changing the language back to

1 what it was in the Perrin Ranch case. So I think
2 Mr. McDonald's issue is taken care of, but I will let
3 him speak to that. So I just want to say that I think
4 we have resolved that question.

5 The only part of that condition that we didn't
6 need in there was the -- that the effort would begin
7 with 120 days. And we are not doing that, and so
8 Mr. McDonald was agreeable to taking that clause out.
9 Other than that, we will have new language for you that
10 we will circulate and we are agreeable to what
11 Mr. McDonald is requesting.

12 CHMN. FOREMAN: Do you have that language
13 available now?

14 MR. SUNDLOF: We are finding a printer. We will
15 have it available soon.

16 CHMN. FOREMAN: The record should reflect that
17 Member McGuire is here.

18 MR. SUNDLOF: Member McGuire, would you like me
19 to start? Good morning.

20 MEMBER MCGUIRE: Good morning.

21 CHMN. FOREMAN: All right.

22 MR. SUNDLOF: Let me conclude. We intend to
23 present this case to you in two panels. The first panel
24 will be three witnesses from NextEra and one witness
25 from our transmission consulting group, the transmission

1 interconnection study group, which is Mark Etherton.

2 And you know Mark.

3 The three witnesses from NextEra are Brandon
4 Stankiewicz, Scott Busa, and Duane McCloud. Brandon is
5 basically the project manager. Scott is the executive
6 director for NextEra Energy Resources. And Duane is
7 lead engineer. They are going to talk -- they are going
8 to introduce the project. Mr. Busa will introduce the
9 applicant. Mr. Stankiewicz will introduce the details
10 of the project. And Mr. Etherton will talk about the
11 transmission interconnection study that was done.

12 And by the way, the result of the study was no
13 impacts at all from adding this interconnection at
14 Jojoba with 300 megawatts on the other side, no impacts
15 to the transmission system.

16 Mr. McCloud will be here to answer your
17 questions. He has a lot of technical knowledge about
18 the project and about solar, and about what NextEra is
19 planning to do in general.

20 The second panel will be our environmental
21 consultants from the Environmental Planning Group, EPG.
22 And I think you know Paul Trenter and also Devin Petry.
23 Paul and Devin will be talking about the environmental
24 analysis they did, particularly focusing on the criteria
25 in the statute that you guys are supposed to look at.

1 And they will conclude that this project is entirely
2 compatible with the environment.

3 Third, we intend to rest our case at that point
4 after those two panels, but we wanted to do a courtesy
5 to the Committee and bring Mr. McCloud back on the
6 stand. And I think the purpose of that is basically to
7 provide you with a little bit of education about the
8 economics of solar thermal and solar photovoltaic, where
9 this is all going, why NextEra chose to switch from one
10 to the other, and what we see is the future of solar
11 energy in the United States and the rest of the -- and
12 actually the rest of the world. Mr. McCloud will also
13 be available to answer any of your questions about solar
14 technology or other renewable technologies, because he's
15 quite the expert on that.

16 Let me tell you what is before you. You have
17 got, obviously, the application, and then you have an
18 exhibit book that we have provided to you. We have
19 marked each of our exhibits and tabbed them separately.

20 I draw your attention to Exhibit No. 2, because
21 Exhibit No. 2 follows what will be our presentation on
22 the screen. As you flip through it you will be able to
23 follow, hopefully, exactly what is on the right and left
24 screen on the right and left sides of your notebook. So
25 if you are having trouble seeing the screen, just, you

1 have got the same presentation in front of you under
2 Exhibit 2.

3 In conclusion, I am thrilled to be able to
4 present this case to you. I am sorry we don't have more
5 issues, but maybe that's a good thing. And I ask that
6 the Committee approve this project and approve the form
7 of CEC that we have submitted to you with the one change
8 that I have mentioned that we have agreed to.

9 And I thank you very much, and I am ready to
10 proceed, Your Honor.

11 CHMN. FOREMAN: All right. Let me address a
12 couple of things with Committee members here before we
13 start with testimony.

14 First, as counsel indicated, the project has
15 changed in nature. And although he is not sure, and
16 since he is not sure I am not sure, what that means
17 exactly. It appears that the public concerns that were
18 previously expressed about the project dealt almost
19 entirely with the water usage issue. I scheduled the
20 usual evening public comment session for 6:00 p.m. this
21 evening. If we work hard it is entirely possible we
22 will be concluded with testimony relatively early this
23 afternoon, and perhaps be able to deliberate and vote on
24 proposed language by the end of the afternoon.

25 So we have a situation that I solicit your input

1 on, and especially those of you who have driven from
2 farther away. We could wait until tomorrow to conclude,
3 either conduct the deliberations and voting then by
4 starting tomorrow morning. We could conclude
5 deliberations and vote this evening or this afternoon,
6 subject to what occurs at the public comment session
7 this evening. If nothing occurs that would merit
8 reopening the case, we could simply vote to adjourn
9 first thing tomorrow morning. Or the third option would
10 be to conclude as much as we can this afternoon, wait
11 for the public comment session, and at the end of the
12 public session, if there is no input at the public
13 comment session that anyone feels would warrant
14 reopening any portion of the Committee, adjourn at that
15 point.

16 So I ask you to think about those things. And
17 we will talk about it a little bit later. But it is
18 entirely possible that we could end this evening, but we
19 would have to work into the evening. And as I said,
20 those of you who have the longest to drive are the ones
21 I will want to hear from the most on that.

22 Now, with regard to the proposed language, as
23 soon as you have the modified language for your proposed
24 CEC, I would appreciate it if we could get copies for
25 everyone on the Committee so that everyone would have

1 that available as we go through the testimony.

2 One other issue that we talked about before,
3 Counsel, I had sent a letter to Steve Olea from the
4 Corporation Commission soliciting any thoughts from him.
5 And I do not remember at this point whether there was a
6 response.

7 MR. SUNDLOF: Your Honor, we don't know of any
8 response. We got none.

9 CHMN. FOREMAN: All right. And I do not have a
10 response. So we will, I guess, address that at -- well,
11 I guess there is nothing that we need to address. I am
12 simply trying to get as much input from Staff at the
13 Commission as possible, and -- well, I guess enough
14 said.

15 All right. I think those are the other
16 preliminary matters.

17 Counsel, why don't we proceed by having you call
18 your first witnesses.

19 MR. SUNDLOF: Thank you, Your Honor.

20 I would like to call as my first witnesses a
21 panel of four witnesses. And they will be Brandon
22 Stankiewicz, Scott -- from left to right, Brandon
23 Stankiewicz, Scott Busa, Mark Etherton, and Duane
24 McCloud, and I ask they be sworn as a panel.

25 CHMN. FOREMAN: All right. Well, we will start

1 with Mr. Stankiewicz.

2 Sir, do you wish an oath or affirmation?

3 MR. STANKIEWICZ: An oath is fine, Chairman.

4 CHMN. FOREMAN: Raise your right hand, please.

5 (Brandon Stankiewicz was duly sworn.)

6 CHMN. FOREMAN: And tell us your name.

7 MR. STANKIEWICZ: My name is Brandon

8 Stankiewicz.

9 CHMN. FOREMAN: All right. And we see the card
10 in front of you with your name spelled. Let me just ask
11 the court reporter if that's okay.

12 THE REPORTER: Okay.

13 CHMN. FOREMAN: All right. Very good. I want
14 to make sure we have an appropriate record.

15 Mr. Busa.

16 MR. BUSA: Busa.

17 CHMN. FOREMAN: Do you wish an oath or
18 affirmation?

19 MR. BUSA: An oath is fine, please.

20 CHMN. FOREMAN: Please raise your right hand.

21 (Scott Busa was duly sworn.)

22 CHMN. FOREMAN: And tell us your name.

23 MR. BUSA: My name is Scott Busa.

24 CHMN. FOREMAN: All right. Very good.

25 Mr. Etherton, do you wish an oath or

1 affirmation?

2 MR. ETHERTON: Oath, please.

3 CHMN. FOREMAN: Raise your right hand.

4 (Mark Etherton was duly sworn.)

5 CHMN. FOREMAN: And tell us your name, please.

6 MR. ETHERTON: My name is Mark Etherton.

7 CHMN. FOREMAN: All right. Mr. McCloud, an oath
8 or affirmation?

9 MR. McCLOUD: Oath, please.

10 CHMN. FOREMAN: Raise your right hand.

11 (Duane McCloud was duly sworn.)

12 CHMN. FOREMAN: All right. Very good.

13 Counsel, you may proceed.

14 MR. SUNDLOF: Thank you, Your Honor.

15

16 BRANDON STANKIEWICZ, SCOTT BUSA, MARK ETHERTON, and

17 DUANE McCLOUD,

18 called as witnesses, having been previously duly sworn

19 by the Chairman to speak the truth and nothing but the

20 truth, were examined and testified as follows:

21

22 DIRECT EXAMINATION

23 BY MR. SUNDLOF:

24 Q. Let's start with you, Mr. Busa. Would you please

25 restate your name and tell us your current occupation and

1 your professional background.

2 A. BY MR. BUSA: Good morning. Again, my name is
3 Scott Busa. I am executive director in the business
4 development group at NextEra Energy Resources. I have
5 been working in the utility industry for 24 years, and
6 glad to say 22 of those years have been with NextEra
7 Energy, both on the regulated utility side of business
8 and in the unregulated side, the NextEra Energy
9 Resources side.

10 In the last nine years I have spent time in
11 power plant development, in natural gas, wind, and now
12 solar generation.

13 Q. Mr. Busa, can you describe your role with respect
14 to this project, the Sonoran Solar Energy project?

15 A. BY MR. BUSA: Certainly. I oversee a team of
16 project managers that work specifically on the late
17 stage development, permit and contract compliance of
18 solar energy projects. And Mr. Stankiewicz is one of my
19 employees.

20 Q. Thank you.

21 Let me turn to you, Mr. Stankiewicz. Would you
22 please restate your name, current occupation, and
23 professional background.

24 A. BY MR. STANKIEWICZ: Certainly. Once again, my
25 name is Brandon Stankiewicz. I am a project director

1 with NextEra Energy Resources, LLC. I have been with
2 the company for about three years. And during that
3 three years my primary responsibilities have been
4 actually working on this project, among other ones. And
5 I work with Mr. Busa.

6 Professional background, I mentioned I have been
7 with the company since 2008. And prior to that I served
8 in the United States Army as a captain. Graduated in
9 2003 from the United States Military Academy at West
10 Point with a bachelor's of science degree in history and
11 systems engineering.

12 Q. Thank you.

13 Let me turn to you, Mr. Etherton. Please state
14 your name and your professional background and your
15 professional affiliation.

16 A. BY MR. ETHERTON: Good morning. My name is Mark
17 Etherton. I have a bachelor of science degree in
18 electrical engineering from New Mexico State University
19 with emphasis in power systems. I have been a
20 registered professional engineer in the State of Arizona
21 with proficiency in electrical engineering since
22 February of 1990. I am the president of PDS Consulting,
23 located at 3231 South Country Club Way, Suite 103, here
24 in Tempe, Arizona.

25 I have a total of 27 years of electric utility

1 experience, including 10 years of transmission
2 consulting and 17 years with Salt River Project, with
3 responsibilities ranging from transmission system
4 planning and the related technical analysis with that,
5 protective relaying, substation design, communication
6 systems, as well as project management.

7 I have been actively involved with the regional
8 transmission planning organizations, including
9 WestConnect, the Southwest Area Transmission subregional
10 planning group and various subcommittees, independent
11 power producers such as NextEra, and the Arizona
12 Corporation Commission biennial transmission assessment.
13 I have testified before the Siting Committee on two
14 previous occasions, Case 126 was the Palo Verde to Pinal
15 West project, and Case 145, the Agua Caliente solar
16 project.

17 Q. Mr. Etherton, can you describe your company,
18 PDS Consulting?

19 A. BY MR. ETHERTON: Sure. PDS Consulting provides
20 consulting services to a wide range of clients, with the
21 bulk of the activity related to generation project
22 interconnections under the Federal Energy Regulatory
23 Commission large generator interconnection procedures.
24 That's a lot to say, but there is quite a few that have
25 to go through with that.

1 PDS is an active member of the Western
2 Electricity Coordinating Council, or WECC, and provides
3 a variety of technical services from feasibility
4 studies, system impact studies, and emphasis with
5 facility studies as well. PDS has worked with most of
6 the transmission owners here in the southwest area of
7 WECC, as well as several developers of solar, wind, and
8 transmission projects.

9 Q. And Mr. Etherton, can you describe your role with
10 respect to the Sonoran Solar Energy project?

11 A. BY MR. ETHERTON: Sure. In my capacity as a
12 transmission interconnection consultant I have assisted
13 with the initial feasibility study of the
14 interconnecting project to the electrical system,
15 preparation of the interconnection request that was
16 ultimately filed with the Salt River Project as the
17 operator of the Palo Verde eastern transmission system,
18 which includes the Palo Verde to Kyrene 500kV line and
19 the Jojoba switchyard, provided technical modeling
20 services for the project, acted as a third-party
21 contractor to perform the system studies to interconnect
22 the project to the Jojoba substation, and provide
23 overall connection support for the public development
24 team as required.

25 Q. Thank you.

1 Let me turn to you, Mr. McCloud. Can you please
2 state your name and your professional background.

3 A. BY MR. McCLOUD: My name is Duane McCloud. I
4 graduated with a bachelor of science in chemical
5 engineering from the University of Akron in 1982, a
6 registered professional engineer in the State of Ohio.

7 I am currently employed by NextEra Energy, which
8 I have been since 1997, involved in both project
9 development and due diligence of existing assets pretty
10 much the entire time in areas of solar, gas, wind, and
11 geothermal. I have been working almost exclusively in
12 development of solar assets for about the last six
13 years.

14 Previous to that I had various positions with
15 Magma Power Company -- which became CalEnergy -- in
16 geothermal operations and design from 1990 to 1997. And
17 previous to that I worked for American Electric Power in
18 operations and design for fossil projects.

19 Q. And Mr. McCloud, explain your role with respect
20 to this project.

21 A. BY MR. McCLOUD: I have been involved in both
22 early stage, mid stage, and late stage development on
23 siting on solar projects, as I said, for about the last
24 six years.

25 In the case of the Sonoran project, I was

1 involved in initial development, initial siting, as we
2 looked throughout the State of Arizona for potential
3 locations for large solar projects. And that includes
4 both solar thermal project development and PV project
5 development.

6 MR. SUNDLOF: Thank you.

7 And Mr. Chairman, Committee members, as I
8 mentioned, Mr. McCloud is here as a technical resource
9 to you, and I put him on this panel so he can answer
10 your technical questions. And he does seem to be quite
11 qualified to do that.

12 BY MR. SUNDLOF:

13 Q. Let me start, Mr. Busa, before I ask
14 Mr. Stankiewicz to introduce the project, could you
15 briefly introduce the applicant, which is Sonoran Solar
16 Energy, LLC, and referencing the exhibits as needed,
17 particularly Exhibit 5.

18 A. BY MR. BUSA: Certainly. Mr. Sundlof did a very
19 good job of going through a high level summary of a lot
20 of our presentation, so hopefully it won't bore you too
21 much with repetition.

22 Q. You are the one under oath; I wasn't under oath.

23 A. BY MR. BUSA: Okay. For the record, Sonoran
24 Solar Energy is a project specific company. We create a
25 project specific company for every power project that we

1 do. Sonoran Solar Energy will hold the permits, the
2 licenses. It will be the constructor of and, finally,
3 the operator of specifically this one photovoltaic
4 project.

5 NextEra Energy has dozens, if not hundreds, of
6 LLCs that run up through the parent company. As stated
7 before, NextEra Energy Resources, formerly known as
8 FPL Energy, is an operator of independent power
9 facilities in 26 states, Canada, and we actually have a
10 solar project under construction in Spain right now as
11 we speak.

12 As corrected for the record before, we have
13 approximately 19,000 megawatts of operation. And that
14 expands primarily through wind generation. We have over
15 8,000 megawatts of wind generation throughout the U.S.
16 and Canada.

17 We are currently the largest operator of solar
18 projects in the United States between our operations in
19 California and in Florida, primarily.

20 In addition to that we also operate
21 hydroelectric plants, fossil fuel, mostly natural
22 gas-fired plants, and NextEra operates three different
23 nuclear power plants and is the owner of those, too.

24 NextEra Energy Resources, again, reports up to
25 the parent company. And specifically the parent company

1 not only operates NextEra Energy Resources, but we have
2 one of the largest utilities in the United States,
3 Florida Power & Light. We are home based in Juno Beach,
4 Florida. So the history of the company goes back to
5 1926, when Florida Power & Light was founded. We have
6 over 4.5 million customer accounts and 23,000 megawatts
7 plus of operation in Florida.

8 And to mention, too, we also recently got into
9 the transmission business, and have recently built a 70
10 plus mile line in the State of Texas that we operate
11 under the name Lone Star.

12 I guess specifically here the important point is
13 we have access to capital and a lot of resources that a
14 lot of companies don't have; additionally, the access to
15 capital and the fact that we are a technology neutral.
16 We tend to operate power projects with proven
17 technology. And that's where our focus is. So we are
18 not wedded to solar thermal or solar PV but can be
19 flexible and kind of go where the market is going on
20 those issues.

21 Q. Mr. Busa, turning your attention to Exhibit 4,
22 can you describe a little bit more the scope of NextEra's
23 activity in generation throughout the United States and
24 Canada?

25 A. BY MR. BUSA: Yeah. I think I covered quite a

1 bit of that, but primarily, again, wind operations
2 across the United States focused in California,
3 significant amount in the midwest and in the northeast,
4 again, fossil generation projects scattered throughout
5 the U.S., concentrated in the northeast.

6 I will mention for solar -- that one is yellow
7 there, not quite green, it is hard to tell -- that is
8 the SEGS facility. That is solar electric generation
9 stations that were the first commercial solar thermal
10 plants in operation in the United States. They were
11 built in the mid 1980s through the early 1990s. That
12 was the first solar boom.

13 And NextEra, while we were not the developer of
14 those projects, those projects actually went into
15 bankruptcy, specifically SEGS 3 through 9, those
16 particular plants. NextEra was able to invest in those
17 out of bankruptcy and have been operating those for a
18 number of years as a successful solar thermal operation.

19 Q. What about Arizona, what are you doing in
20 Arizona?

21 A. BY MR. BUSA: Just outside of Flagstaff we have
22 recently started construction a couple months ago on the
23 Perrin wind ranch facility, a 99 megawatt wind facility.
24 And we are happy to say, as you mentioned before, that
25 the State of Arizona will be a green state for us soon,

1 and we will have those operations underway by the end of
2 the year and hope to then bring on the Sonoran solar
3 project and put another dot on the map for Arizona, too.

4 MEMBER EBERHART: Mr. Chairman.

5 CHMN. FOREMAN: Member Eberhart has a question.

6 MEMBER EBERHART: Thank you, Mr. Busa. You
7 mentioned that you have facilities and operations in
8 Florida, but I noticed the map doesn't show green.

9 MR. BUSA: That's correct. This is just NextEra
10 Energy Resources, which is our independent power
11 production arm. In Florida, if we were to color that
12 arm with the operations of Florida Power & Light, there
13 are dozens of facilities in operation and have been for
14 a number of years as the regulated utility in Florida.

15 Most of those are fossil fuel-fired power
16 plants. We have two nuclear facilities that we operate
17 down there, too, and recently have built over a 100
18 megawatts of solar under the Florida Power & Light
19 parent company. Those include both solar thermal at 75
20 megawatts and 35 megawatts of photovoltaics. Even
21 though it is the sunshine state, Florida is actually not
22 a great place for solar because of the humidity and the
23 cloud cover that we get pretty much on a daily basis.
24 Arizona and the southwest is a much better place to site
25 solar facilities.

1 MEMBER EBERHART: We think so, too.

2 MR. BUSA: That's why we are here.

3 CHMN. FOREMAN: Member Haenichen.

4 MEMBER HAENICHEN: Mr. Busa, Mr. Sundlof went to
5 great lengths expressing his optimism that this project
6 would be built -- I don't mean the line, but I am
7 talking about the station -- but he stopped short of
8 saying it definitely will be built. Has your company,
9 does your company have the billion plus dollars
10 available to do this, or is that still an unsettled
11 question?

12 MR. BUSA: Actually that one I could probably --
13 that's pretty positively. Particularly, our company
14 funds construction without having to wait for
15 construction financing to begin or to even complete
16 construction of a project. So we do have the
17 capitalization. Because it gives us a leg up, we don't
18 have to count on either the banks or Department of
19 Energy, for example, for a loan for that.

20 However, the one item that's lacking currently
21 from this project is a power purchase agreement. And we
22 have been working with both local utilities and some
23 utilities further out to try and develop a power
24 purchase agreement for this project, and we will
25 continue to do so.

1 And I think it is important to say -- and I am
2 sure we will say it again today -- that getting through
3 the permitting, getting all of the entitlements for the
4 project is very important, we believe, to show utilities
5 when they are looking at us that they should be turning
6 to this project for their next power purchase agreement.

7 So no guarantees, but, you know, we don't
8 willy-nilly develop, you know, projects all across the
9 country. And currently we have several projects under
10 construction in California, and we have got another
11 project that's in a similar situation to this that we
12 are still working on a power purchase agreement for and
13 hope to move forward on that as soon as we can get one.

14 MEMBER HAENICHEN: Okay. Your comments about a
15 PPA, purchase power agreement, segue into my real
16 question. And that is: When your company decided to
17 switch from a thermal plant to a photovoltaic plant, the
18 benefit being reduction or almost elimination of water
19 usage, however, on the other hand, I think you will
20 agree it is virtually impossible to do storage with a PV
21 plant, and might that not be a sticky wicket to people
22 who might want to enter into a power purchase agreement?
23 Because this plant will give out long before their peak
24 is over. Do you have a comment on that?

25 MR. BUSA: I am going to leave some of that to

1 Mr. McCloud, I think, later today. There are some
2 possibilities for storage on a photovoltaic plant, but
3 they are still really not in commercial operation, for
4 example, battery storage. So we probably are not and
5 they are not permitting that type of storage for this
6 project.

7 So you are correct. In particular here in
8 Arizona, unlike California where your peaks are a little
9 bit later, you know, there is desire to, you know,
10 possibly take power after the sun sets. So that is a
11 potential sticking point.

12 However, the majority of the power does come
13 during the peak operation or the peak demand here in
14 this market, much more so than, for example, a wind
15 project might bring. So we believe that this renewable
16 resource, while not exactly on coincidence with the
17 peak, is enough so that it will be desirable for the
18 local customers.

19 In addition to that, the solar thermal project,
20 and again, as we mentioned, the pricing has really
21 changed significantly, and to pay for not only the solar
22 thermal project but the solar thermal project cost of
23 storage would add significant cost to the consumers.
24 And that's one of the main reasons that we are now
25 looking to the photovoltaic technology.

1 MEMBER HAENICHEN: True. But you might agree
2 that someone considering a PPA with your company for
3 this project then will have to contemplate buying peak
4 power for the remainder of the period that the solar
5 facility does not produce much output?

6 MR. BUSA: Correct. You know, it is an
7 incremental resource even with storage, to some degree.
8 So the idea that there has to be some peak power at the
9 utility is certainly a concern from the utility planning
10 perspective. But I would venture to say that even with
11 storage, the idea of having to cover the intermittency
12 of renewables is still an issue that we have got today
13 even with some of the storage.

14 MEMBER HAENICHEN: So at what stage are your
15 discussions with possible purchasers of this energy?

16 MR. BUSA: Again, we have proposed a project
17 since 2008, so our discussions with the local power
18 companies have gone back a couple of years. One of the
19 things I can comment on is, what happened during the
20 wave or the boom, which was the sort of, I would say,
21 the land grab of 2007, 2008, you know, there were a
22 couple of things that have come together. Some of those
23 would be federal subsidies, tax credits for the
24 projects, followed up by loan guarantees.

25 There was a lot of carrots to get into the

1 business. And that gap between the early 1990s, when
2 the last commercial solar thermal project was built, and
3 the mid to late 2000s sort of got closed finally. I
4 mean there was a lot of years when solar was not built
5 anywhere in the world.

6 So finally enough carrots were put out there.
7 The RPS, you know, standards changed. That was another
8 one of the big carrots that got put out there, you know,
9 brought on sort of a wave of companies that entered the
10 market, some very specific technology driven companies
11 and some were general like ours.

12 What we have seen -- and I really don't -- I
13 hate to speculate on others, but a number of people
14 negotiated power purchase agreements that they are now
15 finding they can't live up to. NextEra did not do that,
16 and would not do that. You know, we are very realistic
17 in the projects and the pricing that we propose.

18 So I think what we are seeing, in particular in
19 California, I work a considerable amount of time over
20 there, and I have seen several power purchase agreement
21 just evaporate. So hopefully that market kind of
22 correction is also coming to Arizona, that the projects
23 that were proposed initially maybe with a PPA that was
24 not realistic may drop off at this point.

25 So I think the market will open up and the

1 ability for NextEra then to complete negotiations with
2 both either the local utilities or some a little further
3 away, you know, will conclude positively.

4 CHMN. FOREMAN: Because I had anticipated there
5 would be questions on this, and because I had some
6 questions myself, I had asked counsel to make somebody
7 available to answer those. And I am hopeful that
8 Mr. McCloud will be able to do that.

9 MR. SUNDLOF: Yes. At the conclusion, at the
10 conclusion of our presentation, Mr. McCloud actually has
11 prepared slides and comments about the differences
12 between solar thermal, solar photovoltaic, where the
13 market is going. And so go ahead and ask Mr. Busa the
14 questions, but I just mention that we do have that
15 coming.

16 MR. BUSA: And I will be happy to rejoin the
17 panel later from a business perspective if it is not
18 technical questions.

19 CHMN. FOREMAN: Mr. Busa, let me ask you a
20 clarifying question. Are all of your projects built to
21 be operated by NextEra or one of its subsidiaries, or do
22 you build for sale to others?

23 MR. BUSA: We build for ownership and operation.
24 That is really where our history is. Being associated
25 with Florida Power & Light, we are an operator of power

1 plants and energy facilities. So one of the things that
2 we don't do is build to flip. So we are in this for the
3 long haul. We are in this to be an operator for,
4 hopefully, 30 years or so.

5 CHMN. FOREMAN: Thank you.

6 Member Walker.

7 MEMBER WALKER: Since we are talking about the
8 operation and FPL, you talk about the NERC and FERC
9 decision earlier this year with FPL and how that affects
10 your NextEra transmission operations. And this is going
11 to be located right in the heart of Arizona's electric
12 transmission hub. So what actions or changes have
13 occurred since that decision?

14 MR. BUSA: And I may not be completely familiar
15 with the decision that you are speaking of, but this is
16 a gen-tie line alone. So there is no FERC oversight to
17 what we are here today to talk about. There won't be
18 other projects that are hooking up to this line, and
19 because it is a gen-tie line it is not going to be FERC
20 regulated. I am not sure if that answers or not.

21 MEMBER WALKER: Somebody over there is familiar
22 with the FPL decision that FERC handed down, right? A
23 \$25 million fine, the largest fine ever given to a
24 transmission line operator in the United States.

25 MR. BUSA: That had to do possibly with you are

1 talking about a brownout or a blackout that occurred
2 because of an error or something not unlike what we saw
3 in southern Cal recently?

4 MEMBER WALKER: Uh-huh.

5 MR. BUSA: Again, I believe that links back to
6 an operations issue with, you know, someone who affected
7 the transmission system or part of the transmission
8 system.

9 MEMBER WALKER: That's right.

10 MR. BUSA: I would go so far to say here, since
11 we are operating a single power plant with a single tie
12 line, the ability to affect the transmission system
13 because of operations of this plant would be, you know,
14 minimal to zero there.

15 And I would refer -- I don't know if
16 Mr. Etherton has anything to say on that, or it might be
17 later on, you know, how operating a, you know, a gen-tie
18 line in a single power plant might affect the
19 transmission system, but I would say they are not
20 related.

21 CHMN. FOREMAN: Member Eberhart.

22 MEMBER EBERHART: Thank you, Mr. Chairman.

23 Mr. Busa, a couple other questions. If you
24 could speculate, what do you think the odds are of doing
25 a PPA with an in-state organization as opposed to an

1 out-of-state corporation?

2 MR. BUSA: Well, our preference would be to do a
3 PPA with an in-state organization, and that's mostly
4 because there is some cost to wheeling the power out of
5 the State of Arizona. There is also some losses
6 associated with that. So certainly our preference is
7 to, you know, do a deal with an in-state company or a
8 local company.

9 You know, again, we don't want to rule out
10 markets that are there. I would hate to see the project
11 not get built because a California utility really wanted
12 the power and, you know, wheeling it actually made
13 business sense.

14 So again our, you know, it is more likely to be
15 an in-state resource. And part of that is driven by the
16 needs of the in-state resource. And of course, across
17 the border you see the need being a little bit higher
18 with their 33 percent RPS, so it just makes that market
19 a little bit more open. But we would prefer to keep it
20 here in Arizona.

21 MEMBER EBERHART: The project is contemplated to
22 be built on BLM land, which I assume means that the
23 project would not pay any property taxes on the
24 thousands of acres of the development. Is the company
25 proposing to pay an in lieu property tax as some other

1 agencies have, some other of our applicants have talked
2 about doing?

3 MR. BUSA: I turn to Mr. Stankiewicz on that
4 one.

5 MR. STANKIEWICZ: Well, there are a couple cost
6 components that we would pay to the BLM. There is a
7 rental fee for constructing facilities on BLM land that
8 we would be -- that we would start paying once BLM
9 issues a right-of-way grant, which would hopefully be at
10 the end of this year. I believe the rate for that fee
11 is \$188.34 per acre. So for the 30 acres we can do the
12 math there. And that's paid annually.

13 Once we actually construct the generation we pay
14 what they call a capacity fee based on the type of
15 generation and number of megawatts we can generate. I
16 don't have that number handy. I am sure I could look it
17 up later. So we will be paying that amount of money to
18 BLM.

19 But there are also some property and sales tax
20 components that will be going to the state and local
21 municipalities. I think we calculated that should be
22 roughly 4 million bucks during the 39-month construction
23 period that we can talk about later.

24 MEMBER EBERHART: But as far as ongoing year to
25 year, comparing this project to a project that's on

1 private land, there would be a significant savings to
2 your project compared to a competitor that's on private
3 land?

4 MR. STANKIEWICZ: I believe there would be a
5 cost savings. I can't speak with any kind of authority
6 on what those numbers are exactly right here. I don't
7 have them in front of me. I apologize.

8 MEMBER EBERHART: So beyond the 39-month
9 construction period, or whatever that duration would be,
10 there is really minimal benefit to the, to the local
11 area in the state, particularly if you do a PPA with an
12 out-of-state firm. You will be taking Arizona sun and
13 shipping it somewhere else.

14 MR. STANKIEWICZ: We will be paying some kind of
15 property tax. What I have here, and we can probably
16 look up some of these numbers later on if we need to
17 from some of the technical area reports that we have,
18 but I did make some notes. During the operational
19 period, which we are contemplating would be at least
20 25 years, we will look to pay something like
21 16,000 annually in just sales tax alone, and about
22 \$15.5 million in property taxes for the duration of the
23 project, so over that 25-year period.

24 So I am not, I am not sure exactly what the
25 differential would be there between a project of this

1 type exclusively to private land versus a project on BLM
2 land, but we are paying property taxes. It is not, it
3 is certainly not a free ride for us.

4 MEMBER EBERHART: Thank you.

5 MR. BUSA: Maybe just to clarify that a little
6 bit, too, I would say, while we are not paying like a
7 base property tax because it is federal land, it is the
8 tax on the improvements that we would -- that would stay
9 here in Arizona.

10 CHMN. FOREMAN: I think now might be a
11 convenient time to take our morning recess. Before we
12 do that, I would like to check and see if there is
13 anybody in the public area that wanted to make public
14 comment.

15 MR. McDONALD: I do.

16 CHMN. FOREMAN: Have you filled out one of
17 the -- all right.

18 Let me ask staff here to get a sheet filled out.
19 And we will take a break. And when we conclude the
20 break, we will go in and have a public comment. If
21 there is anybody else here who wanted to make a public
22 comment and wants to make it now rather than waiting
23 until this evening, we will do that right after the
24 break.

25 We will come back at 11:00.

1 (A recess ensued from 10:42 a.m. to 11:02 a.m.)
2 CHMN. FOREMAN: All right. Let's see if we can
3 get started again. Go back on the record.

4 I had asked counsel's secretary, Michele, to
5 give each of us a fresh copy of the proposed CEC along
6 with the applicant's new proposed Condition 19 to which
7 counsel made reference earlier.

8 Now, it is my understanding that our member of
9 the public who would like to comment here wants to
10 address that language. Is that -- am I understanding?

11 MR. SUNDLOF: Yes, Your Honor. Mr. Jason
12 McDonald from the Taurus Consulting Law Group was
13 interested in going back to the condition language that
14 was approved in the Perrin Ranch case, and we agreed on
15 that. And what we have presented to you is going back
16 to that language. And I think that Mr. McDonald is
17 supportive of that, but I will let him speak for
18 himself.

19 CHMN. FOREMAN: All right. So for the record,
20 sir, tell us your name and your interest.

21 MR. McDONALD: Good morning. My name is Jason
22 McDonald, M-c-D-o-n-a-l-d. I am with Taurus Consulting
23 Law Group. And good morning, Chair and Committee. I
24 appreciate you giving me a brief moment here to speak
25 with you.

1 I did speak with Ken before the hearing got
2 underway. And I apologize coming in kind of last
3 minute.

4 We saw the proposed Certificate of Environmental
5 Compatibility and finding of facts and conclusions of
6 law just yesterday on the e-Docket. And when we saw
7 that, we realized that Condition 19 in the original
8 proposed CEC had language similar to what had been used
9 in cases as far back as the Arlington Valley solar case.

10 And since the SolarReserve case, which was
11 Case 156 -- there was a large discussion at the
12 Corporation Commission that lasted around two days. And
13 it was between several different stakeholders in the
14 construction trade industries. And with Commission
15 Chairman Gary Pierce's direction, we came to some
16 compromised negotiated language. And that language was
17 used in the SolarReserve case. It was amended that day
18 and used in that case. And then it was again, it was
19 used in the Perrin Ranch case.

20 And we are just here today to -- I guess it
21 looks like that language has been changed, if the
22 Committee is agreeable.

23 CHMN. FOREMAN: And that language is the
24 language in the new proposed Condition 19, is that
25 correct?

1 MR. McDONALD: With one change. The original
2 language said within 120 days of the Commission's
3 decision granting the certificate, and it says the
4 applicant shall make. So that first part has been taken
5 out, and we are okay with that. We do understand the
6 project, you know, not really sure whether they are
7 going to be on a timeline in 120 days. They might not
8 be able to meet with trade and construction groups. We
9 have seen that in the past with other organizations. So
10 if they want to make that change, we are fine with that.

11 CHMN. FOREMAN: Call my attention to the
12 particular, to the line in the language that you are
13 referring to where you had the 120 day.

14 MR. McDONALD: Sure. In the Perrin Ranch --
15 sorry.

16 CHMN. FOREMAN: Yes.

17 MR. McDONALD: In the Perrin Ranch it would have
18 been Condition No. 22, and it read within 120 days of
19 the Commission's decision granting the certificate, the
20 applicant should make good faith efforts to commence
21 discussions with appropriate trade and construction
22 organizations on agreement to encourage utilization of
23 qualified local or Arizona construction workers and so
24 on. So the language they are proposing today just
25 eliminates the limit of 120 days of the Commission

1 granting the certificate.

2 CHMN. FOREMAN: Okay. And again, this is
3 language that was negotiated with Corporation Commission
4 Staff at the review of the -- which one?

5 MR. McDONALD: It was during the open meeting
6 which heard Case 156, SolarReserve. That was back in
7 February of this year.

8 CHMN. FOREMAN: And so far as you are aware, all
9 of the stakeholders who participated in that negotiation
10 are supportive of the language as it reads in the new
11 Condition 19, is that true?

12 MR. McDONALD: Yes, sir. From what I recall
13 from that meeting, yes, sir.

14 CHMN. FOREMAN: Okay.

15 MEMBER PALMER: Mr. Chairman.

16 CHMN. FOREMAN: Member Palmer.

17 MEMBER PALMER: Good faith effort subjectively
18 determined by the Commission, is that correct? There is
19 no objective criteria that defines good faith effort.

20 CHMN. FOREMAN: I think that's true in part, but
21 that's not my complete understanding.

22 Mr. McDonald, why don't you tell us what your
23 understanding is. Who does that, is to judge the good
24 faith of the efforts that are referred to in the first
25 line?

1 MR. McDONALD: Mr. Chairman, Committee, I am not
2 a trained attorney. I am not an attorney. This
3 language was developed with Commission Staff and other
4 attorneys in the room. I wouldn't like to speculate as
5 to who had this.

6 MEMBER PALMER: But it is not objectively
7 defined in law?

8 CHMN. FOREMAN: Correct.

9 MEMBER PALMER: So it would be the -- if the
10 Commission believed that there were superficial efforts
11 as defined by a number of contacts both direct and
12 indirect, they could determine that the good faith
13 effort was not made and require an action?

14 CHMN. FOREMAN: They could. And, in fact,
15 because this Committee has no enforcement power, the
16 Commission would be the only body --

17 MEMBER PALMER: Correct.

18 CHMN. FOREMAN: -- that would be able to do
19 that, other than the parties themselves in some sort of
20 action. So from an enforcement point of view --

21 And Counsel, I would appreciate your thoughts on
22 this.

23 MR. SUNDLOF: Thank you, Mr. Chairman, Member
24 Palmer. This is exactly what we talked about when we
25 looked at this condition when we were drafting it. And

1 we have agreed to go back with that language, even
2 though it doesn't set out an objective standard. I mean
3 the concept of good faith is somewhat defined in the
4 law, although I think it is more in the eye of the
5 beholder.

6 What would happen here if there was somebody
7 that believed that the applicant didn't make good faith
8 efforts, they would have to make a complaint to the
9 Commission. There would ultimately be a hearing before
10 the Commission. The Commission would make a
11 determination, as the Chairman said. That's how it
12 would work. But we agree with you, it is not an
13 objective standard.

14 CHMN. FOREMAN: It usually transpires that when
15 you deal with this sort of problem, or my recollection
16 is from the cases that I dealt with in a former life
17 where there were discussions of good faith, that you
18 came down to a test of reasonableness. And so when you
19 are evaluating whether an action was in good faith, you
20 talk ultimately about whether it was reasonable
21 considering the expectations that the parties had at the
22 beginning of the enterprise.

23 And so I think ultimately the Commission is
24 always going to be in a position of needing some sort of
25 hook, some sort of platform upon which to base its

1 enforcement. And since it is obviously impossible to
2 anticipate in advance exactly what particular criteria
3 would be appropriate here, some kind of reasonableness
4 standard or good faith effort standard is probably as
5 good as you can get in setting a standard.

6 It is just important to note that there is a
7 standard and that good faith is something that's
8 appropriate. And it is the type of standard that has
9 been enforced before by agencies like the Commission and
10 the Commission itself. And so it is something that
11 hopefully they would be able to do with reasonableness
12 in the future.

13 But again, that is the -- what we need to do as
14 a Committee is put the Commission in a position where it
15 can enforce this agreement as effectively as possible.
16 And if this is the language that they want, then, and it
17 otherwise appears reasonable to us, then it appears to
18 me that that's something we should take into
19 consideration when we make our decision.

20 MR. SUNDLOF: Chairman, Member Palmer, I do want
21 to point out that NextEra Energy was the applicant in
22 the Perrin Ranch wind case and accepted this language.
23 So we are fine with it, and we are in agreement with
24 Mr. McDonald that we will propose this language.

25 CHMN. FOREMAN: All right. Member Noland.

1 MEMBER NOLAND: Thank you, Mr. Chairman.

2 And thank you for bringing that up, that we did
3 do this same language in the wind ranch case. And I
4 think now that you are under construction, you are going
5 to be the first company that we are going to have some
6 results, be able to look at that, because none of the
7 others, I don't remember if we did -- I don't believe we
8 did this in the Gila Bend case. I think it started up
9 with the case out of Kingman. I don't remember numbers,
10 so...

11 But I think since you are underway it is going
12 to be interesting, because you are going to be the first
13 that will be doing some reporting. And then we will see
14 what good faith is and what the numbers are. And it
15 will probably end up refining our policy.

16 CHMN. FOREMAN: And I think to bring this back
17 to the basis for having this, we will also see whether
18 collecting this type of information is valuable to the
19 Commission in seeing that the benefits of these Arizona
20 construction projects, to the extent possible, remain in
21 Arizona. So we will hope it works.

22 Thank you for bringing this to our attention.
23 And thank you folks for working on a compromise language
24 that will work.

25 MR. McDONALD: We are very optimistic about this

1 project. It looks great. And it is just as easy to
2 work with you today I am sure as it will be in the
3 future. Thank you all for your time.

4 CHMN. FOREMAN: Okay. Very good.

5 Counsel, let's move back to our testimony. You
6 may proceed.

7 MR. SUNDLOF: Thank you. I was just preparing
8 to start with Mr. Stankiewicz, so let's go.

9 BY MR. SUNDLOF:

10 Q. Mr. Stankiewicz, the project before the
11 Commission is a transmission link between the proposed
12 solar photovoltaic generating facility and the Jojoba
13 substation. Before we get into the specifics, why don't
14 you just give an overview of the generation project that
15 drives the transmission in this application.

16 A. BY MR. STANKIEWICZ: Certainly. What I would
17 like to do is orient the Committee members using
18 Exhibit 6 here to explain regionally where this project
19 is located in the context of Phoenix and some of the
20 existing major landmarks and features that are out
21 there.

22 So greater metropolitan Phoenix is right here in
23 this area. You can see Interstate 17 heading off to the
24 north, Interstate 10 leaving west of Phoenix then
25 heading out to the California border.

1 Here is State Route 85, which Mr. Sundlof made
2 reference to earlier, which connects Interstate 10 with
3 Interstate 8 to the south that goes through Gila Bend.
4 And as you can see here on Exhibit 6, our project is
5 located roughly right in between those two interstates,
6 so we are about 14 miles south of the SR-85 -
7 Interstate 10 interchange in Buckeye, and we are about
8 17 miles north of Interstate 8 and SR-85 here, so just
9 about right in between those two areas.

10 Go ahead.

11 The project itself, as Mr. Sundlof mentioned,
12 is --

13 CHMN. FOREMAN: Excuse me. Member Noland had a
14 question.

15 MEMBER NOLAND: Just a quick question. Where
16 are you in relation to the state prison, Lewis?

17 MR. STANKIEWICZ: I was planning on explaining
18 this on this slide closer zoomed in, easier.

19 So the project itself, 300 megawatt solar
20 photovoltaic facility, it is located in this area, which
21 already has a significant amount of industrial
22 development, transmission infrastructure, and other
23 characteristics which have really compromised the
24 existing landscape.

25 On this map you can again see -- which is

1 Exhibit 7 -- you can see SR-85 running north and south
2 right here, and our project footprint is located to the
3 east of SR-85 in this general vicinity.

4 Just to do a little bit better job of orienting
5 you, the color on the map here in yellow represents land
6 under the control of the Bureau of Land Management. The
7 blue land here is Arizona state trust land. And the
8 white in this area and over here within the, to the --
9 excuse me -- to the east in Goodyear is privately owned
10 land.

11 Some of the existing facilities out there that I
12 made reference to is obviously the Jojoba substation,
13 which will be the terminating point for our gen-tie.
14 The Southwest Regional Landfill is located immediately
15 to the southwest of the Jojoba substation in this
16 vicinity here, so it is just east of State Route 85.

17 The Lewis state prison complex, which
18 Councilwoman Noland made mention to, is right in this
19 vicinity here, so to the west of State Route 85 and, I
20 would say, three and a half to four miles south of the
21 Jojoba substation.

22 Also to the west of 85 and south of Lewis state
23 prison --

24 CHMN. FOREMAN: Let me stop you there. Do you
25 have a green laser pointer? We have one color blind

1 Committee member.

2 MEMBER HAENICHEN: I can't see.

3 MR. STANKIEWICZ: I apologize. I don't believe
4 we do.

5 CHMN. FOREMAN: All right. Apparently not.

6 MEMBER HAENICHEN: They are on notice though.

7 MR. STANKIEWICZ: So noted.

8 CHMN. FOREMAN: If you come up with one, that
9 would be great, but take that into consideration when
10 you are talking about this.

11 MR. STANKIEWICZ: Okay. And one other landfill
12 located out here to the south of the Lewis state prison
13 complex is the Phoenix city landfill. So that's another
14 one of the existing facilities that's out there.

15 And finally, one other facility you can't see on
16 this map but you will be able to see in some of the
17 imagery that we will present later, it was primarily a
18 mineral processing plant that mined some silica sand and
19 things of that nature, trucked it down this Haul Road,
20 and processed it at a small facility located inside of
21 one of these BLM utility corridors. And you will be
22 able to see that on some of the imagery later.

23 There also is a considerable amount of
24 transmission infrastructure in the area which I will
25 talk about on an upcoming exhibit. And as Mr. Sundlof

1 mentioned earlier, there are four natural gas pipelines
2 running along this southern utility corridor that are
3 owned by Transwestern and El Paso.

4 CHMN. FOREMAN: Mr. Stankiewicz, let me ask a
5 question directly on that point. Are there any
6 presently existing natural gas pipelines that intersect
7 any of the proposed routes?

8 MR. STANKIEWICZ: There are not, none. Neither
9 one of our alternative routes intersect any of the
10 existing natural gas pipelines.

11 CHMN. FOREMAN: Very good. Thank you.

12 BY MR. SUNDLOF:

13 Q. Mr. Stankiewicz, you mentioned a number of
14 features. Well, first, there aren't any houses in the
15 general vicinity, right?

16 A. BY MR. STANKIEWICZ: That's correct. The
17 closest house, the closest residences that are occupied
18 east of the project in this vicinity right here. It is
19 really dispersed residential, yes, but there aren't any
20 residences to the north, west, or south of our project.

21 Q. So is that about three miles from the
22 generation -- or from the transmission project?

23 A. BY MR. STANKIEWICZ: From the, yeah, from the
24 furthest eastern point of the transmission project, we
25 are about three and a half miles from the nearest

1 occupied residence.

2 Q. Other than the prison and the landfill, there is
3 no other businesses in the general vicinity?

4 A. BY MR. STANKIEWICZ: There are not.

5 Q. And you mentioned that's in a utility corridor
6 and surrounded by other transmission you are going to get
7 to later?

8 A. BY MR. STANKIEWICZ: Correct.

9 Q. Is this one of the reasons that NextEra Energy
10 Resources chose this site?

11 A. BY MR. STANKIEWICZ: It is. Particularly, and
12 as we made mention to earlier, the project was
13 originally conceived as a solar thermal facility. And
14 we were also planning to use a small level of natural
15 gas co-firing on that facility. So the location in
16 close proximity to these natural gas pipelines was a
17 very significant criteria for us, so we thought that
18 criteria was very well served to the project site.

19 In addition to natural gas, though, we have
20 touched on it already several times and I am sure we
21 will do so again, the Jojoba substation is a major
22 regional transmission hub. And with Interstate 10 to
23 the north and Interstate 8 to the south connected by
24 State Route 85, we really do have a significant high
25 speed access network there that requires minimal

1 improvements from us to get our equipment from existing
2 routes of travel to the project site. So all that
3 existing infrastructure in the area really was well
4 suited for this project.

5 Q. Before you move on, let me ask you about the
6 photovoltaic project, which is not part of this
7 application. How big would that be at full buildout?

8 A. BY MR. STANKIEWICZ: At full buildout the
9 project would be 300 megawatts. And it is sited on just
10 a little over 2,000 acres of Bureau of Land Management
11 land. And the majority of that solar facility is
12 represented by the black hatched area here to the east
13 of the Jojoba substation. The black hatched area
14 represents the actual solar field where the photovoltaic
15 panels and inverters and all the other equipment would
16 be installed.

17 We mentioned it would be constructed in three
18 100-megawatt phases, which are represented by the
19 north-south running lines on the graphic. Some of the
20 ancillary facilities that it would support the operation
21 of the PV generation would be obviously our gen-tie
22 options, which are here in red on Exhibit No. 7, that
23 run from our project substation on the western edge of
24 the photovoltaic facility over to the Jojoba substation.

25 A second facility would be our access road which

1 would connect to State Route 85 in this area, run east
2 across a small portion, about a mile and a half, of
3 state trust land onto BLM land, and it would actually
4 occupy a portion of that Haul Road that I mentioned
5 earlier that the mining operation used to transport raw
6 materials from their mine down to the processing
7 facility.

8 And the third section of ancillary facilities
9 that we have is a small well field located to the east
10 of the main project footprint, which is connected by a
11 small diameter pipeline to our operation and maintenance
12 facilities within the main solar footprint. That well
13 field will pump water that we will use, and I will
14 explain it shortly, but we will use that water primarily
15 for panel washing once the plant is operational, and
16 when the project is under construction we will use it
17 for construction water, so for compaction, dust control,
18 and things of that nature.

19 Some other features of the PV facility, as
20 Mr. Sundlof mentioned earlier, it is solar generation
21 only. There is no natural gas component, so the project
22 would operate only during daylight hours when sufficient
23 sunlight is available to produce electricity. We will
24 not use any water, water use, consumptive water use for
25 power generation. I mentioned we will use it primarily

1 for panel washing and some industrial uses, potable use
2 by employees.

3 And, as far as employment opportunities, during
4 the construction of this project -- which we are
5 scheduling for a 39-month construction period for all
6 three phases -- we expect to employ somewhere between
7 300 and 400 employees for construction and, once the
8 full project is operational, 16 to 20 employees full
9 time to operate that project.

10 Q. Mr. Stankiewicz, I mentioned in the opening that
11 these are solar photovoltaic panels and they are used --
12 basically the same technology as rooftop, maybe a little
13 bit more refined, is that correct?

14 A. BY MR. STANKIEWICZ: It is essentially virtually
15 identical technology to what you might see on a rooftop.
16 The difference in this case is, instead of three or four
17 of them, we are going to have 1.2 million, so it is a
18 little bit bigger.

19 And the other major difference is that in this
20 case we will be mounting the PV panels on some kind of
21 structure that's secured to the ground. And it could
22 either be fixed in one location at one angle, or it
23 could also track the sun from east to west. So it would
24 be mounted on a north-south axis and rotated east to
25 west. That's called single acquisition tracking

1 technology. We haven't exactly settled on which
2 mounting installation we are going to use, but we have
3 sought to permit this project with the BLM contemplating
4 both to give us some optionality.

5 What you can see here on Exhibit 8 is a
6 simulation of the fully built out 300 megawatt PV
7 facility. Where the photo was taken is in some of the
8 lower foothills of the Sonoran Desert National Monument,
9 which is located to the south.

10 So from the photo, the photo point here, you are
11 approximately just a little over a mile to the southern
12 edge of the solar field. And you can actually see the
13 Pinal West line right here in the foreground. So this
14 kind of simulates what the project would like like from
15 that area.

16 As you can see, we don't have any large stacks
17 or any significantly high structures. So most of the
18 facilities are pretty low slung to the ground.

19 Q. Mr. Stankiewicz, give the Committee an idea of
20 how much power is 300 megawatts of capacity.

21 A. BY MR. STANKIEWICZ: 300 megawatts in the State
22 of Arizona, based on what a typical household consumes
23 here in Arizona, should be able to power approximately
24 70,000 homes.

25 Q. And you have not included the solar generating

1 facility in the application because it is not a thermal
2 generating facility, is that correct?

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

4 Q. Let's turn to the transmission project that is
5 before the Committee. And please describe in a little
6 more detail the location of the project.

7 A. BY MR. STANKIEWICZ: Yeah. The gen-tie, as I
8 mentioned previously and as you can see here on
9 Exhibit 9, will serve to connect our project substation
10 located on the western edge of our solar facility
11 footprint with the Jojoba substation which is located
12 somewhere between three, three and a half miles to the
13 southwest of our project switchyard.

14 Again, as we have mentioned previously, we are
15 starting to beat this to death at this point, but the
16 area is already crisscrossed by quite a few existing
17 transmission lines which are outlined here in Exhibit 9.
18 We have a pair of 500 kilovolt transmission lines which
19 run south from Jojoba to the Gila River gas plant. We
20 have two lines that come in from the west from the Palo
21 Verde/Hassayampa switchyard.

22 The first of those is the Kyrene line, which is
23 500kV, which is electrically connected to Jojoba and
24 exits, travels east and then to the northeast through
25 this BLM utility corridor.

1 The second 500 kilovolt line is the Pinal West
2 line, which doesn't actually connect to the substation
3 but it bypasses around the northern side, travels to the
4 east, and then crosses over, over the Kyrene line in
5 this general vicinity and travels off to the southeast.

6 Some of the other transmission lines in the
7 area, as Ken mentioned, are a 230 kilovolt operated by
8 Arizona Public Service that runs from Gila Bend up to
9 the Liberty substation to the north, and two lower
10 voltage 69 kilovolt lines also operated by Arizona
11 Public Service.

12 Our generation tie line, our preferred
13 alternative would exit the project switchyard, travel
14 about nine-tenths of a mile directly west, cross
15 underneath the existing Kyrene line. It would then
16 travel about three-quarters of a mile to the southwest
17 before it makes one more turn directly to the west.
18 Then it would run its last about mile and a half to just
19 north of the Jojoba substation switchyard, where we
20 would turn to the south and connect with the switchyard.

21 Our alternative route is similar in concept, but
22 just a little bit different on the eastern portion of
23 it. We would exit our switchyard here, turn to the
24 south, run about a half a mile before we turn to the
25 west, cross underneath the Kyrene line once again in

1 this location, and continue on a similar route into the
2 Jojoba substation.

3 Our preferred alignment is roughly 3.2 miles in
4 length and the alternative alignment is 3.5 miles in
5 length so it is slightly longer.

6 Q. On Exhibit No. 8, Exhibit 10 -- which one is
7 that?

8 A. BY MR. STANKIEWICZ: This is Exhibit 9.

9 Q. 9, okay. Sorry. On Exhibit No. 9 you show some
10 distances. Can you describe those?

11 A. BY MR. STANKIEWICZ: Yeah. What we have tried
12 to do here on Exhibit 9 is highlight some, for the
13 Committee members, some of the offsets from our proposed
14 facilities with some of the existing facilities in the
15 area. If it is tough to see on the map, it is actually
16 on the flip side of the placemats that you all have in
17 front of you. It might be a little bit easier to see.

18 The first offset that we tried to highlight is
19 the offset between our preferred alignment and the
20 existing Kyrene line, which we are showing at
21 approximately 170 feet. So our line would be 170 feet
22 to the northwest of the existing Kyrene line, which is
23 really the closest point where we are going to be
24 paralleling any of the existing transmission.

25 The second offset is in this vicinity, which is

1 the offset between the common alignment on our two
2 alternatives and the existing Kyrene/Pinal West
3 corridors. That offset is about 1300 feet at the
4 closest point, which we feel is a pretty considerable
5 distance.

6 And as Judge Foreman made mention to earlier,
7 the closest that either of our gen-tie alignments will
8 get to the existing gas lines is indicated right here,
9 so about 1815 feet at its closest point.

10 And the final one, the final offset is here just
11 before we interconnect to the substation, where we will
12 be just north of the Pinal West line. And at that point
13 we will be approximately 230 feet to the north of that
14 existing line.

15 CHMN. FOREMAN: Let me ask a clarifying question
16 here again. We had discussions, and we have had
17 discussions in the past, about spacing parallel lines
18 further apart than the height of the tallest structure
19 supporting the conductor. In the preferred route you
20 show 170-foot spacing between the preferred route of the
21 proposed line and the Palo Verde to Kyrene 500kV line.
22 Is that farther apart than the tallest of the structures
23 on either one of those lines?

24 MR. STANKIEWICZ: It is. The structures that we
25 are proposing for our gen-tie line will range anywhere

1 between 90 and 120 feet tall, and the existing
2 structures on the Kyrene line are steel lattice
3 structures which are on average about 140 to 150 feet
4 tall, so we do meet that criteria.

5 And we have been in contact with the operator of
6 that line -- so in this case it would be Salt River
7 Project -- who has taken a look at where we will be
8 crossing underneath that line and has had a conceptual
9 look at the gen-tie alignment. They haven't expressed
10 any concern with our routing as it is currently
11 configured.

12 CHMN. FOREMAN: Okay.

13 MR. SUNDLOF: Thank you.

14 BY MR. SUNDLOF:

15 Q. Mr. Stankiewicz, let's go to Exhibit 10. And
16 using that, talk a little bit more about the corridors
17 that you are requesting, the BLM corridor relative to
18 topography of the site.

19 A. BY MR. STANKIEWICZ: Sure. The relative site
20 topography in the area of the specific project is it is
21 predominantly flat. There is a gradual slope running
22 from south to north as we move north from the utility
23 corridor up into the Buckeye Hills, which are located to
24 the north of our project site but south of Buckeye, so
25 roughly 12 miles away.

1 The other major terrain feature in the area is
2 the Sonoran Desert National Monument located here to the
3 south. Closest to the project here is really the lowest
4 elevation, and the elevation in the terrain will
5 increase as we move from south to north. Otherwise, to
6 the west of our project area across State Route 85 and
7 further on, we see agriculture uses, some of the
8 industrial applications we have talked about before, the
9 dumps and the Lewis state prison, pretty large
10 agricultural area, and then the Gila River, which is
11 about 10 miles to the west.

12 To the east we have some agricultural use,
13 dispersed residential, and the Sierra Estrella Mountains
14 a pretty considerable distance away, greater than
15 15 miles. That's the topography.

16 This map here really highlights the BLM
17 corridors that we have been talking about. Each one of
18 them is a mile in width. And as Mr. Sundlof mentioned
19 in his opening statement, they have been also designated
20 in their, BLM, in their resource management plan for
21 this area specifically for utility infrastructure to be
22 located so we don't have lines running all over the
23 desert in a hundred different areas. We try to
24 concentrate in this route and keep them all together to
25 really mitigate impacts visually or otherwise, and

1 that's what we have tried to do in this case.

2 Again, our preferred route will just come out to
3 the west here, turn to the southwest along the Kyrene
4 line, and then finally shoot west into the Jojoba
5 substation. You can see that clearly here on
6 Exhibit 10.

7 Q. Why are you proposing an alternative route?

8 A. BY MR. STANKIEWICZ: The alternative route was
9 really proposed just in case we ran into any issues
10 siting our preferred alignment with some of the crossing
11 points. And as Chairman Foreman mentioned a minute ago,
12 any concerns with running parallel to some of the
13 existing transmission, we wanted to give us some
14 optionality there. But we think we have done a good job
15 siting it. We don't anticipate any issues on the
16 preferred alignment.

17 Q. I will get to the preferred alignment later. Let
18 me ask you about the corridor width you are requesting.
19 What are you looking for?

20 A. BY MR. STANKIEWICZ: Exhibit 10 depicts a
21 corridor width of 500 feet from centerline, so a total
22 corridor width of a thousand feet.

23 Q. And why are you asking for that corridor?

24 A. BY MR. STANKIEWICZ: Again, the corridor width
25 is really to provide ourselves with some optionality in

1 case we ran into any challenges crossing over or
2 underneath some of the existing transmission out there.

3 Our preferred alignment, actually both
4 alignments, have a total of four crossings of existing
5 lines. And we wanted to give ourselves a little
6 flexibility in case we had to move any one of the lines
7 slightly north or south to make sure we can safely cross
8 some of that existing transmissions.

9 Q. Thank you.

10 Let's start from east to west and let's start
11 with the project switchyard. Can you describe the
12 project switchyard, which is the black square, in more
13 detail?

14 A. BY MR. STANKIEWICZ: Certainly. The project
15 switchyard, again shown here on Exhibit 10, is an
16 approximately three acre area located at the far western
17 edge of our solar field. The purpose of that facility
18 is really to collect the 34 kV feeder lines that will be
19 collecting the generation from the solar field. It will
20 come out of the power inverters in the solar field at a
21 voltage of 34 and a half kilovolts. It will come into
22 our project switchyard, go through a series of buses and
23 switchgear through a power -- a step-up transformer, so
24 be stepped up from 34kV to 500kV before it goes on our
25 gen-tie and exits the project facility.

1 Q. Okay. Exhibit 14 is a concept depiction of the
2 substation. Can you talk from that exhibit?

3 A. BY MR. STANKIEWICZ: Exhibit 14 is a very high
4 level conceptual drawing of our project substation. You
5 can see north and south of the gen-tie alignment,
6 located in the center, the pair of 34 kV lines that come
7 in from both the north and south. So they will
8 basically be one main trunk line running along the north
9 and south edges of the solar field that will come into
10 the switchyard, go through the bus work and the
11 transformers, and exit the gen-tie off to the west.

12 Q. Okay. So I think this may be of interest to the
13 Committee. The voltage coming off the panels is 34.5
14 volts?

15 A. BY MR. STANKIEWICZ: The voltage coming out of
16 the power inverters --

17 Q. Power inverters, I am sorry.

18 A. BY MR. STANKIEWICZ: -- which converts current,
19 it is generated by the power at DC, the inverters
20 convert that to AC and spits it out at 34.5 kV, correct.

21 Q. Then you transform it to 500 to be able to
22 integrate into the transmission grid?

23 A. BY MR. STANKIEWICZ: Yes. We will convert it to
24 500 within our project switchyard, which is the voltage
25 that both the Jojoba substation the major regional

1 transmission network and our gen-tie will operate at.

2 Q. Let's move on to the other side, which is the
3 Jojoba substation interconnection. Can you describe that?

4 A. BY MR. STANKIEWICZ: Yeah. The Jojoba
5 substation will obviously be the termination point of
6 our gen-tie. It is an existing 500kV substation that's
7 operated by Salt River Project, but it is owned by
8 members of the Arizona Nuclear Power Project. So it is
9 owned by Salt River Project, Arizona Public Service,
10 Tucson Electric Power, El Paso Electric, and Public
11 Service of New Mexico. SRP is the operating agent,
12 however, is the main party that we have been dealing
13 with as we work through the interconnection process.

14 Salt River Project has identified Bay 7E as a
15 termination bay, and which is an open bay of the north
16 side of the switchyard. And because this is such a
17 large substation -- which we will be able to see in an
18 upcoming exhibit here -- we don't require any expansions
19 to the existing substation footprint. All of the new
20 equipment that we would need to install will be able to
21 be accommodated within the existing substation
22 footprint.

23 Q. We have got Exhibit 17 up on the screen. Can you
24 describe what that is?

25 A. BY MR. STANKIEWICZ: Yeah. Exhibit 17 is a

1 graphical depiction of the Jojoba switchyard. This
2 exhibit was actually part of the facility study that
3 Salt River Project completed for interconnection.

4 What it shows here are Bays 1 through 4, which
5 are currently occupied. Bays 2 and 3 are the
6 termination points for those pair of 500kV lines that
7 run to the south to the Gila Bend area. Bay No. 1 is
8 the electrical connection to the Kyrene line that
9 approaches from the west. And Bay No. 4 is the exit
10 point for the Kyrene line that continues on to the east.

11 The Pinal West line, which we made mention of
12 previously, doesn't actually connect to the switchyard.
13 It runs around the northern side, and that's depicted
14 right here in red.

15 Bays 6, 7 -- Bays 5, 6, 7, and 8 are unoccupied.
16 There is no equipment there. Those are located on the
17 north side of the substation.

18 As I mentioned before, Salt River Project
19 identified Bay 7 as the interconnection point. And the
20 primary reason for that is that we have to cross
21 underneath the Pinal West 2 line in this vicinity. And
22 if you look closely at Exhibit 17 you can see one of the
23 existing tower structures. And it was important for us
24 to cross at that point and connect to that bay so that,
25 as our line comes underneath the existing transmission,

1 we are able to do that and maintain all the safe
2 clearances.

3 It is tough to see. You can't really see any of
4 the equipment underneath because there isn't any, but
5 here in the darker gray area you can really see that
6 this is a considerably large substation. There is more
7 than enough space for all the equipment that we will
8 have to install there to terminate our gen-tie.

9 Q. Thank you.

10 Now, Mr. Stankiewicz, can we go to the
11 transmission structures themselves and describe the
12 physical appearance of the structures.

13 A. BY MR. STANKIEWICZ: Our gen-tie will consist
14 primarily of two different structure types. The first
15 structure type is a two-pole H-frame structure. Each
16 one of these will be somewhere between 90 and 120 feet
17 tall. And the variation in height is really due to site
18 specific conditions if we need to -- just general
19 microterrain and topography in the area, that we will
20 have some variation in the tower height.

21 The H-frames are going to be used primarily on
22 the straight runs of the gen-tie, so they will be used
23 as we exit the footprint along the straight run to the
24 west, and they will be used as a parallel to the
25 existing Kyrene line and, finally, as we make our final

1 straight run into the Jojoba switchyard.

2 The second type of tower structure we will be
3 using is a three-pole turning structure. As the name
4 probably implies, and as it is depicted here in
5 Exhibit 16, the turning structures will be used when the
6 gen-tie line needs to make one of the turns. Again, the
7 structure heights will be approximately 90 to 120 feet
8 tall.

9 On our preferred alignment we will have turning
10 structures. There will actually be two of them in this
11 location. We did have to make a minor change to the
12 gen-tie alignment that you can see on some of the maps
13 in response to some feedback from Salt River Project,
14 who wanted us to cross underneath at a 90 degree angle.
15 So we will have two crossing structures, excuse me, two
16 turning structures right here on either side of the
17 existing Kyrene line. We will have a second turning
18 structure in this vicinity on our second turning point.
19 And we will have a fourth turning structure right here
20 as we make our final turn to the south into the Jojoba
21 switchyard.

22 On the alternative alignment we will actually
23 have five turning structures. The first one will be
24 basically immediately as we exit the project switchyard.
25 We will execute a 90 degree turn to the south. The

1 second turning structure will be here when we make a
2 90 degree turn to the west. The third and fourth
3 structures, once again, will be crossing the Kyrene line
4 at a 90 degree. So turning structures 3 and 4 will be
5 located here. And finally, turning structure number 5
6 will be located in an identical position to our
7 preferred alignment, just here north of the switchyard.

8 Q. Thank you.

9 Mr. Stankiewicz, at this time I want to go into
10 the interactive. And I understand we may need to
11 rearrange the projector a little bit. Is this the time?

12 A. BY MR. STANKIEWICZ: Yeah, that's correct, just
13 a minor adjustment.

14 So what we have tried to do here is use Google
15 Earth to give you a visual simulation of what the
16 gen-tie is going to look like from ground level. We
17 have identified a couple of particular points of
18 interest which you can see here on Exhibit 12. We will
19 stop and take a photo and basically pan around so you
20 will be able to see exactly what the terrain looks like.

21 Q. Let me ask you, Mr. Stankiewicz, are hard copies
22 of basically those photos in the exhibit books as
23 Exhibits 11 and 12?

24 A. BY MR. STANKIEWICZ: Yes, that's correct.

25 Q. Okay. So this will be interactive, but it is not

1 interactive in the book?

2 A. BY MR. STANKIEWICZ: Right. We will try to step
3 through this briefly and just orient everybody, once
4 again, to what we can see here on the screen.

5 So this is a base terrain photograph of the area
6 out there. Here you can see State Route 85. You can
7 see actually depicted here the Southwest Regional
8 Landfill, which is located just to the southwest of the
9 Jojoba substation. Over here to the southwest of the
10 landfill is the Lewis state prison, which shows up very
11 clearly.

12 Komatke Road, which is essential synonymous with
13 the natural gas pipeline as it follows that corridor and
14 the mineral processing facility that I made reference to
15 earlier, is right here in the big white spot in the
16 middle of the map.

17 Go ahead.

18 The second layer that we have added on here is
19 land ownership. So once again you can see BLM
20 controlled land here in both light yellow and dark
21 yellow. The dark yellow indicates the designated BLM
22 utility corridors that we made mention to. The blue
23 land here is Arizona state trust land. And the small
24 portion of white or unshaded land here is privately
25 owned land. It is about 148 acres just north of the

1 substation.

2 The next layer will show the existing
3 transmission infrastructure that we walked through. You
4 have the Jojoba substation right here in the center. We
5 have the two lines going towards Gila Bend. We have the
6 Kyrene and Pinal West line coming in from the west. We
7 have the Kyrene line traveling east of the substation
8 and off to the northeast and, finally, the Pinal West
9 line east of the substation traveling to the southeast.
10 And then this depicts our solar generation facility
11 right here.

12 And the final layer we have here are both the
13 proposed alignment and our alternative gen-tie
14 alignment. And once again, we have highlighted the
15 solar field and the project switchyard.

16 And, finally, what we see here are the points of
17 interest, which are shown both on this map. So what we
18 will do on the interactive tour is basically stop at
19 each of these points of interest and pan around from
20 different directions so you can see what is going on out
21 there.

22 And just for reference as we go through this
23 simulation, we have included other points of interest
24 over here on Exhibit 12 just so the Committee members
25 can orient themselves as we step through the

1 stimulation.

2 MR. SUNDLOF: Please proceed.

3 CHMN. FOREMAN: For the information of the
4 members of the Committee, after hearing the initial
5 description of the project, I did not direct the
6 applicant to arrange a tour for members of the
7 Committee. If a member of the Committee would like to
8 physically tour these facilities, we can arrange that.
9 And, of course, we would need to delay voting to another
10 date and time to accommodate that.

11 But as some of you may have noticed, we didn't
12 have a tour scheduled. And the reason was because,
13 based on the description that had been provided to me, I
14 thought that a tour was probably not going to be needed.
15 So if as you are watching this you have some concerns
16 that you would like to express or you would like to have
17 us take a tour, raise those after we are finished.

18 BY MR. SUNDLOF:

19 Q. Mr. Stankiewicz, please proceed with the point of
20 interest tour.

21 A. BY MR. STANKIEWICZ: So the first route that we
22 will conduct a tour of will be the preferred alignment.

23 So we can see here that we basically zoom down
24 to Point of Interest No. 1, which would be a view from
25 our project switchyard. And we will stop here and take

1 a pan of the area. This view is rotating from the
2 southeast to the southwest. So off in the distance here
3 you can see the Pinal West 2 line, the Sonoran Desert
4 National -- excuse me, I misspoke there.

5 What we are looking at here is the Kyrene line,
6 and this view is looking to the west. So it is the
7 Kyrene line that we will be crossing under under our
8 first stretch of our gen-tie.

9 So the gen-tie would exit the project
10 switchyard, travel about nine-tenths of a mile directly
11 to the west and cross underneath the existing Kyrene
12 line right in this location before we turn to the
13 southwest.

14 CHMN. FOREMAN: Let me stop you.

15 MR. STANKIEWICZ: Sure.

16 CHMN. FOREMAN: When you cross, I think I heard
17 you say earlier that the present plan is that it is, it
18 will be at a 90 degree intersection of the Kyrene line
19 so you have got two turning structures or two sets of
20 turning structures before you go under the line. So you
21 will actually have two?

22 MR. STANKIEWICZ: Right. There will be a
23 turning structure on either side of the transmission
24 line. So what isn't depicted graphically to the
25 simulation or on any of the maps is a very short jog, if

1 you want to call it, and then the route. So it would
2 travel generally in an east-west direction, make a
3 slight, call it a 45 degree turn to the north, to the
4 northwest, cross under the line, and then make another
5 slight turn.

6 CHMN. FOREMAN: Okay.

7 MR. STANKIEWICZ: Okay. So our gen-tie is now
8 running to the southwest. We will cross over the top of
9 that existing APS line which you can see there.

10 Point of Interest No. 2 is really the point of
11 intersection between our preferred alignment and our
12 alternative alignment. What we are looking at here is a
13 view to the northeast, and we will pan around to the
14 southwest.

15 If you look closely in the background here you
16 can see that mineral processing facility that I was
17 talking about earlier. It just shows up as a bunch of
18 gray sand over there, just basically piles of sand out
19 in the desert there. The line you are looking at here
20 is the Pinal West line.

21 Go ahead.

22 And we will pan around. And actually, again I
23 misspoke. This is the Kyrene line that we were looking
24 at here, and the Pinal West 2 line is in this vicinity
25 running off to the east. The arrow on here graphically

1 depicts where our two gen-tie alignments would converge.

2 And as we pan around to the south you can see
3 some of the lower foothills of the Sonoran Desert
4 National Monument. And shortly here you will be able to
5 see Pinal West and the Kyrene line that run in parallel
6 off to the west towards the Jojoba substation, which you
7 can begin to see here in the distance.

8 So our preferred alignment would then make
9 another turn, travel directly to the west for about
10 1.5 miles. We will cross over the top of the existing
11 APS 230kV line in this vicinity. We will go onto the
12 private land before we make our final 90 degree turn to
13 the south.

14 We will cross underneath the existing Pinal West
15 line, which you can see depicted right here, and we will
16 terminate the gen-tie in Bay 7E, which is located
17 roughly in this vicinity.

18 From Point of Interest No. 3, which we are
19 standing at now, we are basically on the northwest
20 corner of the Jojoba switchyard looking to the
21 southeast. So this is the northern fence line of the
22 substation.

23 And as we pan the video, here again you will see
24 the Sonoran Desert National Monument to the south. You
25 can briefly see the two 500kV lines that run south

1 towards Gila Bend.

2 Go ahead.

3 And the final point of interest that we will
4 give you a look at is actually -- it will be located out
5 along State Route 85. So the green line that's
6 represented here is our facility access road which will
7 connect the project with the frontage road here on State
8 Route 85.

9 In this view here, once again, you are looking
10 to the east, so you can see the area where our gen-tie
11 will terminate. You can see the Jojoba switchyard in
12 this vicinity, the two towers that head off to the south
13 towards Gila Bend. And as we start our pan, you will
14 get a look at the common corridor for the Pinal West and
15 Kyrene line. You can see the Sonoran Desert National
16 Monument to the south; this is actually the Southwest
17 Regional Landfill, so it is considerably close to the
18 substation and where our project is; the frontage road
19 for SR-85, and if you look closely you will be able to
20 see some vehicles here which are on SR-85; and then
21 finally, once again, the common corridor for those two
22 transmission lines that runs off to the west towards the
23 Jojoba switchyard and the Palo Verde nuclear station.

24 So what we will do now is zoom back out and give
25 the Committee members a view of the alternative

1 alignment which, quite honestly, is going to look pretty
2 similar to the alternative alignment.

3 So once again the alternative alignment at Point
4 of Interest No. 1 is the project switchyard. So instead
5 of going straight directly to the west where the
6 preferred alignment does, the alternative alignment will
7 make an immediate 90 degree angle to the south and run
8 to the south about half of a mile.

9 So here is our 90 degree turn. We are now
10 traveling directly to the south to our second turn,
11 which we have named Point of Interest No. 5. What this
12 view is going to do is pan you from the southwest
13 directly to the west. So in the distance here -- oh, we
14 are okay.

15 So as we look, this is getting towards the west,
16 you can kind of vaguely see right above the vegetation
17 there the Jojoba substation. And you can see some of
18 the shared corridor here between the Kyrene and Pinal
19 West line. And as we pan over, you can get a brief view
20 of the Kyrene line running here again just above the
21 vegetation. It runs off to the northeast.

22 BY MR. SUNDLOF:

23 Q. Does that complete your virtual tour?

24 A. BY MR. STANKIEWICZ: Just about. Just about.

25 So this stretch of the line will run about, all said and

1 done, it will run about two and a half miles crossing,
2 once again, over that APS 69kV line.

3 If you can stop it here actually that would be
4 good.

5 Chairman, that jog in the line that I described
6 on the preferred alignment that wasn't depicted very
7 well in the simulation, you can kind of see a little bit
8 better what it would look like here. So the alignment
9 would approach the crossing point. It would turn, cross
10 at 90 degrees, and then make another slight turn again
11 and get it back into alignment. So that actually is
12 depicted pretty well here.

13 So the simulation, once again, would cross
14 underneath the Kyrene line, merge with the preferred
15 alignment and continue on towards the substation.

16 Q. I jumped the gun a little bit. Now are you done?

17 A. BY MR. STANKIEWICZ: Yeah.

18 Q. Thank you.

19 Mr. Stankiewicz, can you describe what the north
20 alignment is, your preferred alignment.

21 A. BY MR. STANKIEWICZ: We like the north alignment
22 for a couple of different reasons. As I have mentioned
23 earlier, the preferred alignment is about 3.2 miles in
24 length versus 3.5 miles of the alternative alignment.

25 Q. Can I stop you a second. Do we need to readjust

1 the screen there?

2 A. BY MR. STANKIEWICZ: Actually, yes. Thank you.
3 Thank you.

4 Q. Let's do that.

5 CHMN. FOREMAN: While you are doing that, is
6 there any member of the Committee that feels we would
7 profit by having an in-person inspection or tour of
8 the --

9 (No response.)

10 CHMN. FOREMAN: I see no hands. All right.
11 Very good. I just wanted to establish that.

12 MR. SUNDLOF: Can we cancel the vans?

13 CHMN. FOREMAN: You may cancel the limousines,
14 yes.

15 MR. STANKIEWICZ: And I should have made mention
16 of it while I was briefing, but one thing I think the
17 simulation really does a good job of highlighting is
18 that there is already a considerable amount of
19 transmission structure out in that area. And unless you
20 really know what you are looking at, it is tough to
21 differentiate all of it. So I think our gen-tie would
22 really do a good job of blending into the background
23 there and not, you know, really display any adverse
24 impacts that aren't already there in that compromised
25 landscape.

1 BY MR. SUNDLOF:

2 Q. Okay. Go ahead and describe why the north
3 alignment is your preferred alignment.

4 A. BY MR. STANKIEWICZ: Certainly. As I made
5 mentioned, the route is a little bit shorter,
6 three-tenths of a mile shorter. So from our perspective
7 that obviously will save us a little of the costs and
8 allow us to complete the construction of gen-tie a
9 little bit more quickly.

10 More importantly, though, because it is shorter
11 and because it does parallel the access road, which you
12 can see here on Exhibit No. 3 in green, what that allows
13 us to do is to really minimize the extra amount of
14 ground disturbance that we have to do to get from our
15 access road to the location on the ground where we are
16 going to be installing those panels, or, excuse me,
17 installing those towers.

18 So by paralleling the access road, we will have
19 very short what we will call spur roads. They go off
20 the access road to the tower installation location that
21 allow us to get the equipment, construction equipment
22 and the materials to the site. So by paralleling the
23 access road with the northern alignment, we can minimize
24 that disturbance, which is always very important in the
25 Bureau of Land Management. And the northern alignment

1 is shorter, it is faster, less disturbance, and it
2 allows us to accomplish our goal. That's from the
3 company perspective.

4 Now, from BLM's perspective, early on in the
5 process when we were siting this transmission line, BLM
6 expressed to us a couple concerns that they asked to
7 take into consideration when we were designing our
8 route. One of the things, obviously, they asked us is
9 to try and stay within that existing utility corridor to
10 the maximum extent possible. And we have been able to
11 do that with both routes.

12 One of the other things specifically they asked
13 for was to try to stay in parallel to some of the
14 existing transmission as much as possible. And the
15 reason for that was really twofold: number one, to
16 minimize that disturbance that I explained a minute ago,
17 and, number two, the Sonoran Desert National Monument --
18 it is depicted here on Exhibit 3 to the south of our
19 project area -- is really, well, it is a national
20 monument, so it is used quite regularly by recreational
21 users. And one of the concerns BLM had was trying to
22 minimize any visual resource impacts, really, to users
23 in that national monument. So they felt by keeping in
24 parallel with some of the existing transmission that we
25 would do a better job of kind of blending into the

1 background and not putting structures out in the middle
2 of nowhere where there already wasn't something, so to
3 kind of reduce those impacts in the monument.

4 And one other consideration that BLM threw out
5 there was to try to maintain the integrity of that
6 corridor. Naturally it is there so that utilities can
7 utilize it in the future to build out new infrastructure
8 as the need becomes apparent. By staying in the middle
9 of the corridor we maximize other space that's available
10 for that future expansion and we minimize the potential
11 for any tricky crossings of new transmission lines, gas
12 pipelines, or what have you that's built out there.

13 So by staying in parallel instead of going off
14 at a 90 degree angle and kind of getting out of parallel
15 with some of the existing stuff out there, we think we
16 have done a better job of meeting BLM's criteria there.
17 And they have expressed that to us. They have
18 appreciated and they have actually selected what we will
19 call the preferred alignment as their preferred
20 alternative in the final environmental impact statement
21 as well.

22 Q. Thank you, Mr. Stankiewicz.

23 You mentioned cost. Would you compare the costs
24 of the two alignments.

25 A. BY MR. STANKIEWICZ: Yeah. The cost

1 differential, being that it is such a short gen-tie and
2 it is only different in length by three-tenths of a
3 mile, isn't that considerable.

4 What we did to calculate the right-of-way costs
5 here is total the rental fee we would have to pay the
6 BLM per acre. So it is about 188.34 per acre. We
7 calculated the right-of-way we will need from the BLM at
8 about six or seven acres. So we have summed that amount
9 with the costs for us to acquire that 148 acres of land
10 that's just north of the substation. So we have sum
11 totaled those things right here.

12 Q. Is this on Exhibit 13?

13 A. BY MR. STANKIEWICZ: Yes. Excuse me. It is
14 depicted here on Exhibit 13. So the right-of-way costs
15 are essentially the same. With the small difference in
16 acreage, it really becomes a rounding error on the
17 right-of-way costs.

18 Construction cost is calculated simply by
19 multiplying the costs of transmission line per mile by
20 length of line. So in this case we assumed 1.3 million
21 bucks to construct each mile of 500kV gen-tie, which you
22 can see reflected here. And then our total construction
23 cost is the sum total of our right-of-way cost and our
24 construction cost.

25 Q. What are the total costs of the two alignments?

1 A. BY MR. STANKIEWICZ: The total cost for the
2 preferred alignment, \$5.8 million, and the total cost
3 for the alternative alignment is about 6.2. So you are
4 looking at about a difference of \$400,000.

5 Q. I may have asked you this, but how many
6 transmission structures are you talking about here?

7 A. BY MR. STANKIEWICZ: We are anticipating
8 approximately 20 structures to either alignment.

9 Q. Thank you.

10 Mr. Stankiewicz, let's shift gears here and
11 let's get into the purpose and need for this
12 transmission project. And we will start with the
13 purpose. I mean, I think it is obvious, we have talked
14 about what it is going to do, but can you expand about
15 the purpose of this?

16 A. BY MR. STANKIEWICZ: If we talk specifically
17 about the purpose of the project before the Committee
18 here, the gen-tie, the purpose of it is to connect our
19 solar generation facility with the regional transmission
20 grid at the Jojoba substation.

21 In this case it is difficult to fully separate
22 the purposes of the gen-tie with the larger purpose of
23 the solar energy facility, so I would like to just talk
24 about the two of them as if they were one in this case.

25 So the overall purpose of the project, which

1 includes the gen-tie, is to responsibly generate
2 renewable energy here in the State of Arizona. And we
3 wanted to do that by minimizing our use of fossil
4 fuels -- in this case natural gas -- and minimizing our
5 use of water, which is obviously a scarce resource and
6 it is very important here in the State of Arizona. So
7 we think we have done that with the Sonoran Solar Energy
8 project as it is configured as a PV facility.

9 We wanted to do this responsibly, and we wanted
10 to capitalize on what we consider really to be a world
11 class solar resource in the State of Arizona. It is one
12 of the best in the world. And like I said earlier, this
13 300 megawatt solar project can supply about 70,000
14 homes. And with the consideration that we have taken in
15 siting this project, we think we have done this in a
16 responsible way, and we think the project is compatible
17 with the existing plan in this area.

18 Q. Thank you.

19 Let me shift to the need. What is the need for
20 this project? And again talk about the whole project.

21 A. BY MR. STANKIEWICZ: Sure. Primarily the need
22 for the project is driven by the renewable energy
23 standards that are in place here in the southwestern
24 United States.

25 Here in Arizona, you folks have a 15 percent

1 standard, which means that your regulated utilities need
2 to procure 15 percent of their entire load from a
3 renewable resource by the year 2025. Neighboring
4 states, California, Nevada, and in Arizona here Salt
5 River Project, which isn't a regulated utility, they all
6 have similar standards. So the need for the project is
7 primarily driven by the regional renewable energy
8 standards that are on the books today.

9 As we look at the natural resources and some of
10 the conditions that are prevalent here in Arizona,
11 although there are wind and geothermal resources, we
12 feel that the solar resource is one of the best. It is
13 world class and it is abundant. So from our perspective
14 we think that a solar project that allows Arizona really
15 to best capitalize on the resources available to it in
16 order to meet those renewable standards -- and several
17 of your elected officials have also explicitly expressed
18 a desire to make Arizona a solar energy capital. We
19 know Governor Jan Brewer has said that, the Corporation
20 Commissioners and some of the elected officials in the
21 local municipalities. Mayor Meck from the Town of
22 Buckeye is very interested in this project. So we
23 really, what we wanted to do is meet that need and
24 assist Arizona to meet its portfolio standards, and do
25 that in a responsible way and capitalize on really what

1 is a fantastic solar energy resource.

2 Q. Mr. Stankiewicz, this may go without saying, but
3 a purpose is to reduce emissions and fuel costs?

4 A. BY MR. STANKIEWICZ: That's also true. In this
5 case there isn't any consumptive fuel uses. The fuel
6 source for this resource is free. It hits the ground
7 every day. So we won't use any natural gas whatsoever
8 to generate electricity at this project.

9 Q. And no emissions?

10 A. BY MR. STANKIEWICZ: No, no fossil fuel
11 emissions.

12 Q. Mr. Stankiewicz, go over the other benefits of
13 this project.

14 A. BY MR. STANKIEWICZ: Some of the other benefits
15 for this project that will be most apparent will be, I
16 think, the construction jobs and the full-time
17 employment jobs that the project will bring to the area.

18 During the 39-month construction period, we look
19 to employ, again, 300 to 400 employees. There is no
20 reason to believe that those employees couldn't come
21 from the local labor force. There is plenty of manpower
22 out there and they are fully qualified to work on this
23 project.

24 During full-time operations, again, we would
25 seek to employ 16 to 20 personnel full-time. And

1 assuming local folks are qualified for those jobs, there
2 is no reason to believe why we wouldn't be able to hire
3 them either.

4 Particularily during that construction period we
5 will also see a considerable increase in demand in some
6 of the local towns, I would suspect most notably Buckeye
7 and Goodyear, for housing, hotels, restaurants,
8 consumable goods, things of that nature. And also
9 during the operational period there will be opportunity
10 for local contractors to provide specialized contracts
11 to operate the facility and maintain the facility.

12 And then as we talked about previously before,
13 there will be property and sales tax contributions, both
14 during construction and operations, that the project
15 will make to the local communities, school districts,
16 and the state.

17 Q. Okay. Now, has the public had an opportunity to
18 participate in your siting process?

19 A. BY MR. STANKIEWICZ: The public has had an
20 opportunity. This project has really been in the
21 development phase since 2008. It is now 2011. So we
22 have been working on this thing for about three years.
23 So we have met with a lot of people, talked about a lot
24 of different things. And there is a comprehensive list
25 of those meetings, who we talked to and what we talked

1 about, as Exhibit J in the application that you guys
2 have and that we have filed.

3 In addition, as we mentioned before, this
4 project is also covered under the National Environmental
5 Policy Act. In this case it is implemented by the
6 Bureau of Land Management. And under NEPA, they
7 mandated a significant public outreach process to
8 solicit input from the public and make sure the public's
9 concerns are addressed in the environmental analysis.

10 So in this case the BLM accomplished that
11 primarily through the scoping process which they
12 completed in the spring of 2009. So what BLM did was
13 organize a series of public scoping meetings. They held
14 them in Phoenix, they held them in Buckeye, and they
15 held them in the Town of Gila Bend. BLM was actually
16 the agency running that meeting, but NextEra Energy
17 Resources in this case supported that meeting. We
18 delivered a presentation and we were on hand to answer
19 questions that the public had. So we participated in
20 those meetings.

21 The second major public forum that we were
22 involved in was comments on the draft environmental
23 impact statement. Those meetings took place in the
24 fall, I believe it was August of 2010. Again, they had
25 a series of three meetings held in Phoenix, Buckeye, and

1 Gila Bend. And the purpose of those meetings was for
2 the public, after having had a chance to review the
3 draft environmental document, to come into that meeting
4 and ask both BLM and the applicant in this case any
5 questions that they had on the analysis that BLM had
6 conducted, identify any gaps in the analysis, and really
7 set the BLM up for a quality project and quality product
8 in the final environmental impact statement. So we
9 participated in all six of those meetings on a public
10 forum.

11 And then along the way BLM also published
12 various update newsletters. We assisted them in the
13 meeting announcements and we quality controlled some of
14 the information that they had posted on their website.
15 So it really has been a pretty significant collaborative
16 effort throughout this whole process with the BLM since
17 2008 really.

18 In addition to what we were required to do to
19 support NEPA and the BLM, independently we also
20 conducted quite a bit of additional outreach. We have
21 been in pretty regular contact with elected officials
22 and staff members from the Town of Buckeye and the City
23 of Goodyear to talk about issues of concern, most
24 notably water use in this case.

25 And as I mentioned, Mayor Meck is very

1 interested in the opportunity for jobs for this project,
2 so we have been in regular contact with him.

3 Various nongovernmental organizations, most
4 predominantly environmental groups in this case, the
5 Sonoran Institute, Wilderness Society, Sierra Club and
6 some others have been involved with the project. We
7 have sat down with them several times to talk through
8 how the project is configured and what we are doing to
9 address any possible impacts to plant and animal
10 resources.

11 We have actually gotten a few letters of support
12 from the environmental groups. The Sonoran Institute
13 and Sierra Club and several others are cosigners on
14 those letters.

15 So we feel it is a very productive process.

16 We held a public open house to discuss this
17 project in the Town of Buckeye in mid 2010 then and
18 solicited comments then and tried to incorporate the
19 comments in the analysis we have done for the project.

20 And finally, we do have a project website that's
21 run by us that has been up and operational for over two
22 years. So the public is able to go on there. There is
23 contact information for representatives of the company
24 and an opportunity to them to e-mail any comments or
25 concerns that they have.

1 Q. Can you discuss the --

2 CHMN. FOREMAN: Member Walker, I think, had a
3 question.

4 MEMBER WALKER: Thanks.

5 When I looked through your exhibits, it appeared
6 that all of the public comment sessions were conducted
7 when it was planned to be a CSP facility, is that
8 correct?

9 MR. STANKIEWICZ: Yeah. The change in
10 technology, we will call it, when we added a new
11 alternative to the environmental impact statement
12 framework really happened after we held public comments
13 on the draft environmental impact statement.

14 MEMBER WALKER: So the decision not to have any
15 was, am I correct, predicated on the realization that
16 there wouldn't be a significant difference in terms of
17 difference as a result impacts to people and you had
18 actually incorporated the feedback you got from the
19 public, therefore there wasn't a need to go back, is
20 that right?

21 MR. STANKIEWICZ: Well, we unfortunately weren't
22 in the position to make that call. The NEPA process
23 outreach is really driven and scheduled and mandated by
24 the Bureau of Land Management. So in this case they
25 felt that the range of impacts was adequately addressed

1 by the solar thermal facility, which really was a more
2 impactful facility, so they didn't hold any public
3 comment meetings.

4 What they did do was construct a newsletter
5 really describing the change in technology, the reasons
6 for it, and sent out a large mailing to everybody on the
7 mailing list who had, you know, received notice for the
8 public meetings, who had received copies of the draft
9 environmental document, and provided them with, I
10 believe it was, either a 30- or 45-day comment period to
11 provide comments, you know, via e-mail, hard copy mail,
12 or phone calls to certain points of contact. And those
13 comments would have been incorporated into the final
14 document.

15 MEMBER WALKER: And were any comments received?

16 MR. STANKIEWICZ: Most of the comments we
17 received, and there are some folks from the BLM behind
18 you, but I think most of the comments were very
19 positive, as in we are so happy that you changed it to
20 PV and heard us.

21 MR. SUNDLOF: Chairman, let me ask one more
22 question, and then it might be a good time.

23 CHMN. FOREMAN: I was going to suggest that we
24 soon ought to be breaking, so if you have got a question
25 or two.

1 MR. SUNDLOF: Let me wrap up the public comment
2 part.

3 CHMN. FOREMAN: Okay, very good.

4 BY MR. SUNDLOF:

5 Q. Okay, so I have one more question. And you
6 described the public process that you held. No, wait a
7 minute. First, you haven't talked about this hearing.

8 What have you done to notice this hearing?

9 A. Right. We noticed the hearing to comply with
10 the -- back up a slide.

11 We talked about the proper methodology to notice
12 this hearing in our prefiling meeting with Chairman
13 Foreman. What we have done is posted the appropriate
14 signage at the project location. This is the text of
15 the signs. Now you can go. And they are posted at the
16 locations indicated here on Exhibit 12 by the yellow
17 push-pins.

18 Chairman Foreman, you provided some input on the
19 location of that signage during the prefiling meeting.
20 So those signs are out there on the ground and they have
21 been out there -- pretty while. From what I know, I
22 don't believe there is any bullet holes in them, but it
23 has been a couple weeks, so who knows. Here is actually
24 a photo of the signs out here. We also took out --

25 CHMN. FOREMAN: Hunting season isn't over here.

1 BY MR. SUNDLOF:

2 Q. Exhibit 21 is the photo of the signs?

3 A. BY MR. STANKIEWICZ: Exhibit 21 is a photo of
4 one of the signs out there. This is actually close to
5 the Jojoba switchyard.

6 We also took out newspaper ads in the West
7 Valley View, Arizona Republic, and some of the other
8 outlets. And we posted the meeting notice on our
9 project website as well.

10 Q. Thank you.

11 Now, you did all this outreach. Can you
12 describe the feedback that you received from the public?

13 A. BY MR. STANKIEWICZ: Yeah. As Committee Member
14 Walker alluded to earlier, the majority of the public
15 comments that we got dealt primarily with the solar
16 thermal generating facility, and they could really be
17 summarized and classified in four different areas.

18 Number one was water use, obviously.

19 Number two was use of natural gas at what was
20 considered a renewable generation facility.

21 The third concern that folks had was wildlife
22 movement through the area, particularly in some of the
23 larger desert washes on the eastern side of the desert
24 footprint.

25 And the fourth was visual impacts and impacts to

1 the Sonoran Desert National Monument to the south, and
2 also to some of the dispersed residential inhabitants
3 out to the east of the project area.

4 When we made the decision to change the
5 technology and add this new photovoltaic alternative
6 into the EIS framework, we did that for a couple
7 reasons. Economics and the way the market was going was
8 one of them, but we felt that was a great opportunity to
9 really consider the scope of the comments that we got
10 from the public, which was really pretty clear what
11 people were interested in.

12 So we really seized upon the opportunity not
13 just to change the technology but to try and respond in
14 some substantive way to the comments that we received
15 from the public. And we think we have done that with
16 the new photovoltaic.

17 From a water use perspective, we have reduced
18 the water use from somewhere in the ballpark of 3,000
19 acre feet per year to roughly 33 acre feet per year, so
20 100 times less water use, which is considerable.

21 Natural gas usage, as I mentioned before, there
22 won't be any, so we have eliminated that concern
23 entirely.

24 Wildlife movement and visual resources, as one
25 of the members made mention of earlier, the project was

1 originally a 305 megawatt solar thermal project. That
2 project would have covered about 3700 acres. Where we
3 are now is at a 2,000 acre, 300 megawatt solar project.
4 So we have reduced the size of the project by somewhere
5 between 35 and 40 percent. So we have proportionately
6 reduced visual impacts. We are installing equipment
7 that is lower slung to the ground and not really as
8 prominent on the landscape. And we have also taken the
9 eastern edge of the project footprint and moved it to
10 the west about a mile and a quarter further away from
11 the closest resident. So we think we have done a good
12 job reducing impacts to visual resources.

13 And finally, with wildlife, those two more
14 prominent desert washes on the eastern side of the
15 project, the CSP project, now we are not disturbing
16 those washes, basically. So we think they will be able
17 to preserve some of the better habitat that the wildlife
18 was foraging and living in and moving through out there.

19 So, really, I mean I personally feel that we
20 have done a pretty good job of addressing the public
21 concerns, and we are pretty proud of where we are with
22 the photovoltaic alternative.

23 Q. How would you characterize the current feedback
24 you have heard from the public?

25 A. BY MR. STANKIEWICZ: The feedback from just

1 about everybody we talked to, if I can generalize, has
2 been very positive. They are pleased we have heard
3 their concerns and pleased we have responded in a very
4 positive way to it. They are excited about the project.
5 They are very interested in the jobs it can provide and
6 for the most part have been very supportive of the
7 project.

8 Q. Did you get a recent letter from the Town of
9 Buckeye supporting the project?

10 A. BY MR. STANKIEWICZ: We did very recently,
11 actually. And you can correct me if I wrong, I think it
12 was added to the record.

13 Q. It was added to record. It is one of the
14 prefiled exhibits, Exhibit 31.

15 A. BY MR. STANKIEWICZ: Yeah. The project is
16 within Buckeye's planning area. They participated as a
17 cooperating agency with the BLM, and the letter that
18 Mr. Sundlof made mention to basically supports the
19 project. So we are pleased.

20 MR. SUNDLOF: This is a good time to break, Your
21 Honor.

22 CHMN. FOREMAN: It is. Member Haenichen had a
23 question.

24 MEMBER HAENICHEN: Thank you, Mr. Chairman.
25 With your permission, I have a question that may require

1 the applicant to do some research during the lunch
2 break, so that's why I would like to ask it now.

3 The Committee has been assured by comments made
4 by Mr. Sundlof early on that the facility's existing
5 transmission lines leaving the Jojoba substation have
6 adequate capacity to handle the additional input of this
7 project.

8 What I would like to know is, keeping in mind
9 that this project is going to have its greatest impact
10 on those other lines at the very peak time of day and at
11 the peak time of year, I would like to know what the
12 capacity, actual capacities of the other lines are at
13 that particular set of conditions to give us a little
14 better feel for just how much margin will be left when
15 and if this project goes into operation.

16 MR. SUNDLOF: Mr. Haenichen, that's a timely
17 comment because our next witness up after we finish with
18 Mr. Stankiewicz will be Mr. Etherton, who can address
19 those questions.

20 MEMBER HAENICHEN: Thank you.

21 CHMN. FOREMAN: Very good. We will then take
22 the lunch recess. Let's recess until 1:30. It is a
23 little bit more than an hour. We will reconvene again
24 at 1:30 with testimony.

25 (A recess ensued from 12:16 p.m. to 1:31 p.m.)

1 CHMN. FOREMAN: All right. We have our
2 witnesses here. We have our Committee here.

3 Counsel, are you ready to proceed?

4 MR. SUNDLOF: Your Honor, we are ready.

5 CHMN. FOREMAN: Please do.

6 MR. SUNDLOF: Okay.

7 BY MR. SUNDLOF:

8 Q. Mr. Stankiewicz, we talked a little bit about the
9 purchased power agreement for the facility in question,
10 but I just wanted to get back to that. Can you -- you
11 don't have a purchased power agreement, but tell me, is
12 this something that is unusual, or is this something that
13 is somewhat expected on a project like this?

14 A. BY MR. STANKIEWICZ: This dynamic isn't
15 necessarily unusual in today's power market. As
16 Mr. Busa alluded to earlier, there is a lot of
17 developers out there who are seeking a limited amount of
18 projects and limited amount of markets available under
19 some of the RPS standards.

20 In this case I think we have a great project.
21 We have sited it well. We are going to interconnect to
22 a very key regional hub at the Jojoba switchyard. We
23 haven't run into a lot of mitigation requirements or
24 sensitive environmental issues or resources.

25 Given our size and standing, I think we can

1 price this project competitively and make it very
2 attractive to potential off-takers. And just our
3 reputation as a company who develops good projects and
4 is in it for the long haul adds some credibility.

5 And, finally, the amount and the scope, the time
6 and the resources we would have expended permitting
7 this, getting to some of the major permitting efforts,
8 namely the environmental impact process and the
9 Corporation Commission process, would really serve to
10 take away a lot of uncertainty that a potential
11 off-taker might have on what issues they are going to
12 run into on a project.

13 And I think with those factors combined, you
14 know, it really adds credibility to the project. This
15 demonstrates the project viability and it is a project
16 we are excited about and we think the off-takers will be
17 excited about too.

18 Q. And you are investing a lot of money in it?

19 A. BY MR. STANKIEWICZ: Yeah, that's true.

20 Q. Mr. Busa, do you have anything to add? I know
21 you already mentioned this subject.

22 A. BY MR. BUSA: Again, I think just to reiterate
23 some of the things I said earlier, that we are trying to
24 put together a project that's attractive to the regional
25 utilities, that once you have all your entitlements you

1 are really able to lock down what your true costs of the
2 project are. And with those facts and, you know, the
3 need to meet a renewable portfolio standard here in
4 Arizona, you know, there is a couple of boxes to check,
5 and we think the more we have done at this point in time
6 the more likely we are to get a power purchase agreement
7 and to be able to move ahead with the project.

8 Q. Thank you.

9 Mr. Stankiewicz, given there is somewhat
10 uncertainty here, but what is your proposed time frame
11 for construction?

12 A. BY MR. STANKIEWICZ: The time frame for
13 construction we are looking at right now would run, as I
14 mentioned before, 39 months in total, 2013 to 2015, with
15 each 100 megawatt phase coming on each year. So a phase
16 in 2013, a phase in 2014, and a final phase in 2015.

17 Obviously the construction time is a bit
18 speculative since we don't have that PPA with the
19 commercial milestones outlined. So we would be able to
20 accelerate or stretch out that construction time frame
21 as we needed to hit our milestones that would be
22 outlined in a PPA.

23 Q. Mr. Stankiewicz and Mr. Busa --

24 CHMN. FOREMAN: I am sorry. I need to back up
25 there. When you are talking about the construction, you

1 are talking about the construction of the entire
2 project, not the construction of the --

3 MR. STANKIEWICZ: Yeah, that's a good point.
4 Thank you, Chairman.

5 The 39-month construction period would be for
6 the whole solar project, 2013 to 2015. The construction
7 of the generation tie line would obviously have to take
8 place during the construction of the first phase. So
9 that construction would take place in 2013.

10 BY MR. SUNDLOF:

11 Q. Thank you.

12 Mr. Busa mentioned that NextEra is of such a
13 size that it allows it to do some of the construction
14 financing. Can you discuss why that's an advantage?

15 A. BY MR. BUSA: Well, the real advantage is that a
16 company that's the size of our parent company, NextEra
17 Energy, Incorporated, it is a very large, very well
18 capitalized company. So the advantage that it gives us
19 is that we are not beholden to any external resources,
20 really, to start the construction. We don't need to
21 secure a DOE loan or really any sort of external
22 financing to start the construction. The company is big
23 enough and well capitalized to do it on its own on its
24 own balance sheet.

25 Habitually we will finance the project, but that

1 typically happens during the operational periods of the
2 project. We could do it on a stand-alone project for
3 this particular project, and the company has also gotten
4 pretty adept at financing a project portfolio as well.

5 But the key advantage is we can start this
6 project, we can start the construction on it as soon as
7 we have all of our entitlements and all of our
8 commercial arrangements in place. We don't need to wait
9 for financing.

10 Q. Thank you.

11 And Mr. Stankiewicz, what time frame are you
12 requesting in this CEC?

13 A. BY MR. STANKIEWICZ: We are asking for a period
14 of 10 years. And again, that just speaks to the current
15 uncertainty on when -- what our commercial milestones
16 are going to be.

17 Q. Now, we have marked as Exhibit 1 the application
18 that was filed in this case. And was this application
19 prepared under your direction?

20 A. BY MR. STANKIEWICZ: It was.

21 Q. And does the application comply with the laws,
22 regulations, and requirements for siting before this
23 Committee?

24 A. BY MR. STANKIEWICZ: Yes, sir, it does.

25 MR. SUNDLOF: Thank you.

1 Now, if there are any questions for
2 Mr. Stankiewicz, I am going to move to the transmission.

3 CHMN. FOREMAN: Do we have any questions from
4 Committee members?

5 (No response.)

6 MR. SUNDLOF: Thank you.

7 BY MR. SUNDLOF:

8 Q. Mr. Etherton, you have been previously sworn and
9 you have given your qualifications and described your role
10 with the project. So let me start out.

11 You know, your testimony was that you did an
12 interconnect -- transmission interconnection study. Can
13 you just kind of give a general background on why you
14 would do such a thing and why is it needed particularly
15 for the newer members of the Committee?

16 A. BY MR. ETHERTON: Sure. As I mentioned in my
17 introduction, the western United States is primarily
18 made up of the Western Electricity Coordinating Council,
19 or WECC. And that is comprised of the 11 western
20 states, the western part of Canada, and the northern
21 part of Baja, Mexico, all interconnected as one bulk
22 transmission system, if you would. Arizona is also part
23 of that interconnected system.

24 Because of the fact that transmission system is
25 so interconnected, it is important to plan each and

1 every interconnection to the transmission system in
2 order to ensure that the interconnection does not
3 degrade the reliability of the transmission system as a
4 grid as a whole, including the WECC area.

5 The Federal Energy Regulatory Commission has
6 required that each jurisdictional transmission owner go
7 through a large generator interconnection procedure to
8 ensure that the technical analysis is completed and
9 approved by the transmission owner prior to executing an
10 interconnection agreement, which is the final agreement
11 to be able to actually connect into the switchyard.

12 Q. And how is that determination made?

13 A. BY MR. ETHERTON: I will go through that process
14 a little bit more as we progress through the testimony.
15 But in summary, the process of interconnection involves
16 several technical studies, a physical evaluation of the
17 facility's itself, and evaluations by independent
18 parties such as ourselves. And the ultimate approval or
19 disapproval of the interconnection by the transmission
20 owner has oversight for that interconnection process.

21 Q. Mr. Etherton, you mentioned Arizona is
22 interconnected to the western transmission grid. Using
23 Exhibit 22, can you explain that a little bit better?

24 A. BY MR. ETHERTON: Sure. Yeah, this is a map.

25 Q. And let me interrupt you. We tried very hard

1 over the noon hour to find a green laser pointer, and
2 called a lot of places. And we don't have one, but we
3 will have one at the next case.

4 MEMBER HAENICHEN: Okay, good. Thank you.

5 MR. ETHERTON: I will be careful not to point
6 with one, I will just do general areas.

7 We also had a similar tough time trying to find
8 an Arizona map that had all the facilities on it that
9 was not subject to critical infrastructure and things as
10 well. So we were able to use an Arizona map from some
11 of the Biennial Transmission Assessment studies, which
12 is Exhibit 22 here.

13 But the primary purpose of this is to really
14 show some of high voltage transmission lines that are in
15 Arizona. There is the Palo Verde hub with several lines
16 coming back into the Phoenix area toward the east, to
17 the northeast, Westwing to Rudd and back toward Jojoba
18 and eventually into Kyrene in the southern part of
19 Tempe, Arizona. This also shows, as the dashed line
20 here, Hassayampa/Jojoba or the Pinal West/Southeast
21 Valley project that comes through this area, as well as
22 the planned Hassayampa/North Gila line. But there is
23 also an existing line there today, and the Palo
24 Verde/Devers line that comes out of here, too.

25 But again, the main purpose of this is to show

1 the high voltage transmission lines around the Arizona
2 area. And this area for around Palo Verde is kind of a
3 key hub, if you would, for the transmission system for
4 Arizona.

5 Q. And does Exhibit 22 show the Jojoba substation?

6 A. BY MR. ETHERTON: It does. It is a little bit
7 hard to see, but it is right in the general area east of
8 the Hassayampa switchyard, about 15 miles east of the
9 Palo Verde hub.

10 Q. And why would this project want to connect at
11 Jojoba?

12 A. BY MR. ETHERTON: As you can see from this
13 map --

14 Q. This Exhibit 23?

15 A. BY MR. ETHERTON: Exhibit 23, yes, I am sorry.
16 It was a little bit more of a zoomed in map again from
17 one of the biennial assessment maps, but it is depicted
18 to show some of the facilities around the
19 Hassayampa/Palo Verde area in general.

20 And you could see from here where the Jojoba
21 switchyard is. It is about 15 miles east of
22 Hassayampa/Palo Verde. And then Jojoba/Kyrene goes back
23 to the southern part of Tempe and runs about 45 miles or
24 so back into that area.

25 But this hub itself has several interesting

1 anomalies for it, which is a marketing for several of
2 the Arizona utilities, Nevada, southern California,
3 including the members of the Cal ISO, Imperial
4 Irrigation District and others. The Palo Verde eastern
5 transmission system, which the Palo Verde/Kyrene line is
6 part of, is actually owned by Arizona Public Service,
7 Salt River Project, Public Service of New Mexico, and
8 El Paso Electric. So technically even at this location,
9 the project could sell directly to one of those members,
10 one of those.

11 Q. Could you go on to describe the connection at
12 Jojoba in a little more detail.

13 A. BY MR. ETHERTON: Okay. We have another slide
14 for that.

15 Q. I don't believe we do. Use that one.

16 A. BY MR. ETHERTON: All right. With this one
17 then, again, the Jojoba switchyard is located about 15,
18 15 miles east of Hassayampa. The original Palo
19 Verde/Kyrene line was built when Palo Verde was built.
20 When Hassayampa was interconnected it became part of the
21 Hassayampa/Kyrene line, and when the Gila River power
22 station was constructed, they built the two 500kV lines
23 and actually constructed the Jojoba switchyard and made
24 that part of this network transmission for the Palo
25 Verde eastern transmission system.

1 Q. From a transmission perspective that's a good
2 place to be?

3 A. BY MR. ETHERTON: It is a very good location.
4 And as I mentioned, it is also for I would be able to
5 wheel back through one of the entities of the owner of
6 the line back to the Palo Verde hub and to the regional
7 markets in the west as well as for Arizona.

8 Q. Okay. Mr. Etherton, please describe the process
9 for interconnection to the transmission grid. And I know
10 you have an exhibit, Exhibit 18, so use that as a guide.

11 A. BY MR. ETHERTON: Yeah, Exhibit 18 is pretty
12 comprehensive steps to the process that the project has
13 gone through to be able to interconnect at the Jojoba
14 switchyard. I have summarized each one of these. And I
15 have got a little bit more definition around each one
16 that I think we will step through one by one.

17 Q. Okay. Let's step through them. Let's start with
18 the first step, the interconnection request to SRP in
19 February 2008.

20 A. BY MR. ETHERTON: The interconnection request
21 process started with the filing by the applicant of a
22 completed generator interconnection application to Salt
23 River Project. The application is filed with SRP
24 because SRP is the operating agent of the Palo Verde
25 eastern transmission system, which is basically the

1 transmission facilities east of Palo Verde. SRP also
2 operates a Jojoba switchyard as part of that system.

3 This filing was made in February 2008. The
4 Sonoran Solar Energy project was initially proposed as
5 two 250 megawatt concentrating solar projects with a net
6 500 megawatt interconnection request with a single 500kV
7 tie line from the project into Jojoba.

8 Q. Okay. Let's move to the second box, the
9 interconnection study and approval by WATS. Describe that
10 step.

11 A. BY MR. ETHERTON: Okay. Following the submittal
12 and acceptance of the interconnection request to
13 interconnect to the Jojoba switchyard, my firm, PDS
14 Consulting, proceeded with preparation of the study plan
15 to conduct a power flow, transient stability, and
16 short-circuit analysis to assess the impacts to the
17 transmission system of the project.

18 Following completion of the study plan that was
19 submitted to and ultimately approved by SRP and the
20 Western Arizona Transmission System, or WATS, which is
21 the technical review group for the Palo Verde eastern
22 transmission system, and it is made up of the technical
23 experts of the owners of each one of those transmission
24 facilities, it is kind of a peer review group, if you
25 would for the technical studies. So they, the WATS

1 group, oversees all the process, including what reports
2 and an analysis that's completed through that process.

3 The WATS technical subgroup reports to the
4 engineering and operating committee of the Palo Verde
5 eastern transmission system. So that's kind of the
6 executives, if you would, of the Palo Verde eastern
7 transmission system.

8 The study plan included the requirements for, I
9 mentioned, the power flow, transient stability, and
10 short-circuit assessments to be completed as part of the
11 system impact study.

12 The WATS group also requires specific
13 requirements for the Palo Verde generating station.
14 That's to ensure the specific technical studies are
15 examined for any project interconnecting to the Palo
16 Verde eastern transmission system. This is known as the
17 Palo Verde updated final safety analysis, which was
18 performed as part of this analysis to determine the
19 simultaneous eastern, Palo Verde eastern transmission
20 system safe operating limits following the addition of
21 the Sonoran Solar Energy project.

22 The results of the analysis must show the
23 stability of the Palo Verde nuclear generating station
24 and is not impacted following the addition of the
25 Sonoran energy project. In this case, the system impact

1 study was completed and approved by the WATS technical
2 subcommittee as well as the Palo Verde eastern
3 transmission system owners in October of 2008.

4 Q. Mr. Etherton, then what happened in the third
5 block, the request for a supplemental study?

6 A. BY MR. ETHERTON: With the completion of the
7 initial system impact study for the two 250 megawatt
8 concentrating solar units, NextEra requested to SRP that
9 a supplemental study be completed that would assess the
10 impacts of one 250 megawatt unit and two 125 megawatt
11 concentrating solar units to the Palo Verde eastern
12 transmission system interconnecting at the same location
13 at Jojoba. We also performed that study.

14 Q. Okay. And then what about the fourth block,
15 approval of the supplemental study by WATS?

16 A. BY MR. ETHERTON: The request was ultimately
17 approved, and the subsequent process of approving a
18 study plan was achieved via the WATS technical
19 subcommittee. The supplemental system impact study only
20 included the transient stability and short-circuit
21 analysis due to the fact that the power flow impacts of
22 the 500 megawatts of the solar configuration would not
23 change the impacts at Jojoba in the system. The
24 supplemental system impact study was completed and
25 ultimately approved by the WATS and Palo Verde eastern

1 transmission system owners in October of 2009.

2 Q. Please describe the fifth block, the facilities
3 study.

4 A. BY MR. ETHERTON: NextEra then requested to
5 proceed to the next step in the interconnection process
6 with the Palo Verde transmission system owners, which is
7 known as the facilities study, to determine the physical
8 interconnection requirements for the 500kV tie line
9 interconnection into the Jojoba switchyard.

10 Salt River Project led this effort on behalf of
11 the Palo Verde eastern transmission owners. The
12 facility study was ultimately completed and approved in
13 September of 2010, with the determination of a specific
14 location to terminate in the Jojoba switchyard, the cost
15 for the interconnection itself, and any specifics
16 related to the crossing of the existing facilities to
17 terminate into the Jojoba switchyard.

18 Q. And then in the sixth box there was a second
19 request for a supplemental study?

20 A. BY MR. ETHERTON: That's correct. Following the
21 completion of the facilities study in December of 2010,
22 NextEra requested to SRP that an additional assessment
23 be evaluated for the solar facility to be configured as
24 a 500 megawatt photovoltaic facility only, but with the
25 same generator tie line at 500kV and terminating into

1 the Jojoba switchyard.

2 Q. Okay. Then what happened in the seventh block,
3 the approval of the second supplemental study?

4 A. BY MR. ETHERTON: Okay. Once again, the WATS,
5 again, the technical study group for the Palo Verde
6 eastern transmission system, approved this modification.
7 And then an additional supplemental study should be
8 performed that would include only the transient
9 stability component of the technical analysis be
10 examined and that no other assessments were required.
11 This supplemental system impact study was completed and
12 approved by the WATS technical subcommittee and the Palo
13 Verde eastern transmission system in May of 2011.

14 Q. Okay. And the final box was another request?

15 A. BY MR. ETHERTON: Most recently NextEra had
16 submitted a request to SRP to reduce the total amount of
17 the solar to be constructed at the site from 500
18 megawatts down to 300 megawatts. This request does not
19 impact the interconnection's generator tie line into the
20 Jojoba switchyard and reduces, in my opinion reduces the
21 overall impact even more for this interconnection.

22 SRP is pending review of this request, and
23 actually I think we have an update on that as of this
24 morning. SRP did approve and the WATS subcommittee
25 approved that reduction to 300 megawatts.

1 Q. So we are all approved by WATS and the Palo Verde
2 owners?

3 A. BY MR. ETHERTON: That's correct.

4 Q. What does approval mean?

5 A. BY MR. ETHERTON: The approval means with the
6 completion of the system impact studies, evaluating all
7 the technical impacts, the facilities study identifying
8 the cost, which bay termination you are going to enter
9 into into Jojoba so you could proceed with the
10 interconnection agreement and get that finalized over
11 the next, I imagine, three to four months just so you
12 could actually start to interconnect the project at
13 Jojoba.

14 Q. Mr. Etherton, what are your overall conclusions
15 regarding the transmission impacts of the proposed
16 interconnection at Jojoba?

17 A. BY MR. ETHERTON: The results of the technical
18 analysis performed to date -- and again, as you can see
19 there were several studies conducted -- and with the
20 peer review from the WATS technical group for the
21 oversight for the Palo Verde eastern transmission
22 system, there are no impacts to the system under normal
23 single or multiple contingency outage conditions, no
24 transient or post-transient impacts to the Palo Verde
25 eastern transmission system or to the regional

1 transmission system, no impacts related to short-circuit
2 duty impacts to the existing system, and the proposed
3 project meets all applicable NERC, National Electric
4 Reliability Council, Western Electricity Coordinating
5 Council, and the Palo Verde eastern transmission system
6 reliability criteria.

7 Q. So Mr. Etherton, would you call that a green
8 light?

9 A. BY MR. ETHERTON: Yes, a lot of review on this
10 interconnection, as you can imagine, during that time
11 frame.

12 Q. Mr. Etherton, has the applicant filed a 10-year
13 plan with the Corporation Commission?

14 A. BY MR. ETHERTON: Yes, they have.

15 Q. And when were they?

16 A. BY MR. ETHERTON: The applicant filed two
17 10-year plans, one on November 24th, 2009, and the
18 second one on May 26 of 2011.

19 Q. And Exhibit 29 is the first 10-year plan?

20 A. BY MR. ETHERTON: I don't have that in front of
21 me to verify the exact exhibit, but yes.

22 Q. Okay. Take my word for it.

23 Exhibit 30 is the second 10-year plan?

24 A. BY MR. ETHERTON: Yes.

25 Q. And --

1 A. BY MR. ETHERTON: I am sorry, yeah, the last
2 filing contains the last supplemental study that was
3 completed for the photovoltaic.

4 Q. So those exhibits contain your studies?

5 A. BY MR. ETHERTON: Yes.

6 MR. SUNDLOF: I have no further questions of
7 this witness. You guys want to?

8 CHMN. FOREMAN: I was wondering, Member
9 Haenichen, please follow up on your question, because I
10 have a question that I want to follow up yours.

11

12

EXAMINATION

13 BY MEMBER HAENICHEN:

14 Q. So as I read it, what you are saying is long
15 before this project was conceived, the existing
16 transmission lines were designed with much more capacity
17 than they were going to be asked to carry?

18 A. BY MR. ETHERTON: Yes.

19 Q. How much more?

20 A. BY MR. ETHERTON: I actually looked that up
21 during the lunch period as well. The Palo Verde/Kyrene
22 line or the Hassayampa/Jojoba/Kyrene line has an
23 emergency rating capability of 2900 megawatts, which is
24 a pretty significant number for a 500kV line, but it
25 is -- that's the capacity of that existing line under

1 emergency.

2 Q. And do you have any feel for what the maximum has
3 ever been actually run on that line?

4 A. BY MR. ETHERTON: I do not have the actuals.

5 Q. That would be helpful to know. But I mean I am
6 not, I am not griping about this, the capacities. I would
7 just like to know the numbers.

8 A. BY MR. ETHERTON: With the study plan, as I
9 mentioned, that the WATS peer review group prepares, it
10 examines a worst-case scenario with all the generation,
11 all the schedules, for heavy summer peak. This
12 interconnection looked at two time periods, 2012 heavy
13 summer as well as 2014 heavy summer under different
14 conditions, selling some of the output into the Arizona
15 entities and selling some of the output, some into the
16 Palo Verde hub area and some into Arizona.

17 So they tried to look at extreme conditions for
18 those different types of studies with the study plan,
19 including the emergency, or the emergency testing for
20 the Palo Verde units itself.

21 Q. I guess what is not bothering me but what I don't
22 understand, when an entity designs a transmission line
23 like the ones that existed there, clearly they estimate
24 what the maximum load is going to be on those lines and
25 then add a cushion for safety. But now they are able to

1 take another probably 500 megawatts. That's where you
2 started and they approved. They consciously put even more
3 capacity into those lines.

4 So were they just anticipating merchant plants
5 or something coming along or --

6 A. BY MR. ETHERTON: I think it is really just a
7 factor of the design itself, that they designed it for
8 the higher capacity for long-term needs, whether it
9 would be to interconnect facilities along the way or to
10 import from the Palo Verde hub area to the Phoenix metro
11 area.

12

13

EXAMINATION

14 BY CHMN. FOREMAN:

15 Q. Let me interject a question there that might be
16 relevant to that. I notice on Exhibit S-22 you have a
17 reference to the Sun Zia line which, as I understand it,
18 is a line that would import renewable energy from
19 southeastern Arizona and New Mexico. I assume at least
20 part of that imported energy would be photovoltaic and
21 energy that would be peaking roughly at the time that the
22 energy input by this project would be peaking.

23 Consistent with Member Haenichen's question, do
24 you know whether the projected importation of energy
25 through the Sun Zia line was a factor that they considered

1 when determining whether this project would inject energy
2 beneath the capacity of the lines?

3 A. BY MR. ETHERTON: The Sun Zia project was not
4 included in the technical studies for the system impact
5 study for this project. That answers that.

6 Q. Well, you said you got this slide from the
7 biennial transmission study of the Corporation Commission.
8 Am I remembering that correctly?

9 A. BY MR. ETHERTON: That's correct.

10 Q. So they -- I am puzzled, then, by the fact that
11 they would put that line in, which I understand is
12 supposed to be a double 500kV line and carry quite a bit
13 of energy. Why would they put that on their slide and not
14 put a projection concerning energy importation into their
15 calculations?

16 A. BY MR. ETHERTON: Again, the technical studies
17 for the Sonoran project was to the Palo Verde eastern
18 transmission system. And the study plan was developed
19 by the WATS subcommittee on projects that they felt, in
20 its future projects, felt that would have impacts to
21 that system.

22 Q. Well, according to your diagram, the Sun Zia line
23 would have an impact on that system, would it not?

24 A. BY MR. ETHERTON: It would interconnect to the
25 Southeast Valley project, which goes around Jojoba today

1 and not interconnect to the Jojoba.

2 Q. You don't think it would run electricity up
3 through the Kyrene substation?

4 A. BY MR. ETHERTON: It could. I think, and
5 again I --

6 Q. And Kyrene was --

7 A. BY MR. ETHERTON: -- worked a little bit, did a
8 little bit of work on the rating studies as well, so I
9 have to be a little careful.

10 But the import of the wind energy that has been
11 proposed for Sun Zia and other types of energy is
12 primarily for the, you know, the Phoenix metro area, the
13 area down through Tucson, in that central area itself
14 and to the west as available.

15 The only line that's there today is the line
16 that goes from the Pinal Central substation through
17 Pinal West and around Jojoba all the way back toward
18 Palo Verde. To get back through the Phoenix metro
19 system and through Kyrene and then back to Jojoba in
20 this scenario would take the transmission system from
21 SRP to be able to come back all the way through that
22 area.

23 CHMN. FOREMAN: Okay. Member Haenichen.

24 MEMBER HAENICHEN: Thank you.

25 The purpose for my questions on this go beyond

1 this particular hearing by this particular applicant.
2 But, and I have -- I was not a member of this Committee
3 when those earlier transmission lines were permitted.
4 But it would be helpful to us, and this doesn't apply to
5 your case because you have a dedicated line for your one
6 project, but whether a multiple use corridor with lines
7 in it is proposed, it would be helpful to us if we knew
8 that, oh, this is going to have a lot more capacity than
9 we need for this, this, and this reason. And I don't
10 recall that ever coming up in any of the lines we have
11 approved.

12 CHMN. FOREMAN: I don't think it has. And it is
13 an interesting point. I don't know whether the
14 intention was to address the interconnectivity of the
15 various lines through the biennial transmission
16 assessment rather than through this permitting process.
17 But it would -- and I agree with you, this is kind of a
18 one-way plug going from a generator to the --

19 MEMBER HAENICHEN: Oh, yeah.

20 CHMN. FOREMAN: -- to the substation, but we are
21 not really put in a position where we can evaluate the
22 adequacy of the substation and the adequacy of the
23 transmission lines that are intersecting at that
24 substation. But that probably is beyond our brief as
25 far as this case is concerned.

1 MEMBER HAENICHEN: On this particular case I
2 would agree. But it might prompt us on future cases to
3 ask some of these questions about capacity. Thank you.

4 CHMN. FOREMAN: Member Walker.

5 MEMBER WALKER: Mr. Chairman, just a quick
6 question.

7 Mr. Haenichen said he would just like to know
8 numbers. That's what this question is about. Your last
9 slide you said you evaluated contingencies on normal
10 single and multiple events. What was the multiple?
11 N-2, N-3.

12 MR. ETHERTON: N-2.

13 MEMBER WALKER: Thanks.

14 MR. ETHERTON: And specifically I have got a
15 list of them here.

16 MEMBER WALKER: No, I just need to know the
17 numbers. N-2?

18 MR. ETHERTON: That's correct.

19 CHMN. FOREMAN: Mr. Eberhart, do you also have a
20 quick question?

21 MEMBER EBERHART: Question, Mr. Chairman, a
22 quick question.

23 Could you describe for the Committee, how do you
24 take into account the impact on the system when the
25 plant suddenly would have cloud cover come over and

1 basically shut down the electricity being generated from
2 the PV plant?

3 MR. ETHERTON: Sure. The way we conduct both
4 the power flow and post transient and transient analysis
5 is that we lose basically the generator tie line, one of
6 the outages we simulated, which is instantaneous within
7 a four-cycle window, if you would, for that analysis.
8 So the way we look at it for that worst-case scenario is
9 the loss of the entire output to go from, in our case,
10 500 megawatts all the way down to zero is how that is
11 assessed.

12 MEMBER EBERHART: Thank you.

13 CHMN. FOREMAN: You may proceed, Counsel.

14 MR. SUNDLOF: Thank you, Your Honor.

15

16 FURTHER DIRECT EXAMINATION

17 BY MR. SUNDLOF:

18 Q. Let me just ask one follow-up question. You
19 know, you do a study to determine the impact of a specific
20 interconnection, but isn't -- is the impact of a specific
21 interconnection dependent upon the whole system, at least
22 the whole system in the area? So in other words, the more
23 robust the system, the greater the ability to
24 interconnect?

25 A. BY MR. ETHERTON: That's correct.

1 Q. So to answer Mr. Haenichen's question, the
2 interconnection of Sun Zia will depend on a lot of
3 factors, including what other facilities are built in the
4 meantime and whether other interconnections occur at the
5 Palo Verde or the Pinal Central substation?

6 A. BY MR. ETHERTON: Pinal Central area.

7 Q. Pinal Central area?

8 A. BY MR. ETHERTON: That's correct.

9 Q. And there are potentially other interconnections
10 planned for Pinal Central?

11 A. BY MR. ETHERTON: There is.

12 Q. That may coincide with Sun Zia coming on line?

13 A. BY MR. ETHERTON: Probably sooner, right.

14 Q. Probably sooner, so probably sooner for both
15 500s?

16 A. BY MR. ETHERTON: Right.

17 Q. So the answer is sort of a -- it is not easy to
18 say this particular line has a carrying capacity of 2,000
19 megawatts, because the capacity depends on where it
20 interconnects and the robustness of the system as a whole?

21 A. BY MR. ETHERTON: That's correct.

22 MR. SUNDLOF: That's all I have. That's all I
23 have for this panel, Your Honor.

24 CHMN. FOREMAN: All right. Very good. If there
25 are no other questions, then you wanted to proceed with

1 Mr. McCloud's testimony, is that correct?

2 MR. SUNDLOF: Let me do the EPG testimony.

3 CHMN. FOREMAN: That's fine.

4 MR. SUNDLOF: So I would like to call Paul
5 Trenter and Devin Petry and get rid of these guys.

6 CHMN. FOREMAN: Don't go far. We may need you
7 again.

8 MR. SUNDLOF: All right. I believe these
9 witnesses need to be sworn.

10 CHMN. FOREMAN: Are we going to start with
11 Mr. Trenter?

12 MR. SUNDLOF: Yes.

13 CHMN. FOREMAN: Sir, would you prefer an oath or
14 an affirmation?

15 MR. TRENTER: An oath, please.

16 CHMN. FOREMAN: Raise your right hand.

17 (Paul Trenter was duly sworn.)

18 CHMN. FOREMAN: And give us your name for the
19 record, please.

20 MR. TRENTER: Paul Trenter.

21 CHMN. FOREMAN: All right.

22 Mr. Petry, do you wish an oath or affirmation?

23 MR. PETRY: An affirmation, please.

24 (Devin Petry was duly affirmed.)

25 CHMN. FOREMAN: And give us your name, please.

1 MR. PETRY: Devin Petry.

2 CHMN. FOREMAN: All right. Counsel, you may
3 proceed.

4 MR. SUNDLOF: Thank you, Your Honor.

5

6 PAUL TREENTER and DEVIN PETRY,
7 called as witnesses, having been previously duly sworn
8 and/or affirmed by the Chairman to speak the truth and
9 nothing but the truth, were examined and testified as
10 follows:

11

12 DIRECT EXAMINATION

13 BY MR. SUNDLOF:

14 Q. Let's start with you, Mr. Treenter. Why don't you
15 restate your name and give your professional affiliation
16 and background.

17 A. BY MR. TREENTER: My name is Paul Treenter. My
18 business address is 4141 North 32nd Street, Phoenix,
19 Arizona 85018. I received a bachelor of landscape
20 architecture from the University of Wisconsin. I am a
21 principal at EPG, Environmental Planning Group, with 23
22 years of experience in planning and permitting. I have
23 managed to participate in over 50 major transmission
24 line projects.

25 And on the left-hand screen you can see a list

1 of the seven cases I have testified previously. The
2 last is Case 135, Palo Verde hub to the North Gila
3 substation project.

4 Q. And Mr. Trenter, can you describe the
5 Environmental Planning Group, EPG?

6 A. BY MR. TRENTER: Certainly. Environmental
7 Planning Group is an interdisciplinary planning and
8 permitting firm with offices in six states,
9 headquartered in Phoenix, Arizona. EPG personnel have
10 provided testimony numerous times before this Committee.

11 Q. Over 30 years?

12 A. BY MR. TRENTER: Over 30 years, yes.

13 Q. Mr. Trenter, what is EPG's role with the Sonoran
14 Solar Energy project?

15 A. BY MR. TRENTER: EPG was retained by Sonoran
16 Solar Energy, LLC to provide the environmental resource
17 studies, assessments, and inventories, and to prepare
18 the CEC application for this project.

19 Q. Mr. Trenter, did EPG sponsor Exhibits A through J
20 of this application, which is Exhibit 1?

21 A. BY MR. TRENTER: Yes, we did.

22 Q. Thank you.

23 Mr. Petry, please state your name and your
24 occupation and your professional background.

25 A. BY MR. PETRY: My name is Devin Petry. I

1 received a bachelor of arts in geography from the
2 University of Arizona. I am a project manager at EPG,
3 with four years of experience in environmental planning
4 and permitting, and I have managed or participated in
5 over 25 environmental planning projects.

6 Q. And I don't see anything on the screen about
7 other cases. Is this your first case before this
8 Committee?

9 A. BY MR. PETRY: Yes, it is.

10 Q. Okay. Better do a good job.

11 A. BY MR. PETRY: Do my best.

12 Q. Okay. Well, then let's go, Mr. Petry. Can you
13 provide us with an outline of the testimony that you are
14 planning to give?

15 A. BY MR. PETRY: Yes, I can. EPG will provide to
16 the Committee information on the solar project's NEPA
17 process, the environmental studies completed, and the
18 overall compatibility of the Sonoran solar generation
19 tie line project.

20 Q. Okay. Mr. Petry, as this generation and
21 transmission project will be built primarily on federal
22 land, did this project trigger a process under the
23 National Environmental Policy Act?

24 A. BY MR. PETRY: Yes, it did. The National
25 Environmental Policy Act is a process that is triggered

1 by a federal action, wherein the environmental effects
2 of the action, along with any reasonable alternatives,
3 are analyzed. And there are three main types of
4 documents that will address the National Environmental
5 Policy Act, or NEPA. And those include a categorical
6 exclusion and environmental assessment and an
7 environmental impact statement.

8 Q. And which is the most extensive of these three?

9 A. BY MR. PETRY: The environmental impact
10 statement is the most extensive of these three.

11 Q. And did this project qualify for an environmental
12 impact statement?

13 A. BY MR. PETRY: Yes, it did.

14 Q. And why is that?

15 A. BY MR. PETRY: Well, as a result of the
16 right-of-way application being filed with the BLM lower
17 Sonoran field office, NEPA was initiated. And the BLM,
18 as the lead federal agency, decided that the EIS would
19 be required based on the fact that there was the
20 potential for significant environmental impacts.

21 Q. Basically because of the number of acres taken up
22 by the whole project? Because we are talking about
23 generation here, too.

24 A. BY MR. PETRY: That is correct. At that point
25 it included the concentrating solar project, which was

1 approximately 3700 acres.

2 Q. Okay. And on this environmental impact statement
3 process, who conducts that?

4 A. BY MR. PETRY: The federal agency will conduct
5 that. And in this case that would be the BLM.

6 Q. And are there any other federal, state, or local
7 agencies that would be involved in this process?

8 A. BY MR. PETRY: Yes, there are. In this case the
9 additional agencies included the Arizona Game & Fish,
10 the Town of Buckeye, and the City of Goodyear as
11 cooperating agencies, as well as the Arizona Department
12 of Water Resources as an interested party. And the
13 Department of Water Resources came in as an interested
14 party based on the fact that they declined to become a
15 formal cooperating agency.

16 Q. What does it mean if you are a cooperating
17 agency?

18 A. BY MR. PETRY: It means that you were involved
19 in the decision making process. So during the
20 development of the EIS, the cooperating agency will have
21 some input on the decisions that are made and the -- on
22 the decisions that are made.

23 Q. Okay. Well, then, discuss what is the overall
24 purpose of the environmental impact statement process.

25 A. BY MR. PETRY: Yeah. The essential purpose of

1 the environmental impact statement is to analyze the
2 environmental effects of the federal action and to
3 ensure that reasonable alternatives are considered
4 equally in the decision making process. Additionally,
5 the EIS will inform the federal agency and other
6 agencies in the overall decision making process.

7 Q. Okay. So let me stop you there. The EIS looks
8 at all sorts of environmental impacts, is that right?

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

10 Q. And it comes out with a report that analyzes all
11 those impacts?

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

13 Q. And it is meant to inform the federal agencies
14 and this Committee?

15 A. BY MR. PETRY: Correct.

16 Q. Does the environmental impact statement require a
17 public process?

18 A. BY MR. PETRY: Yes, it does. The EIS process
19 requires federal notice, public scoping meetings, and
20 hearings on the draft environmental impact statement.

21 Q. So what is the current status of the
22 environmental impact statement for this project?

23 A. BY MR. PETRY: Well, the draft environmental
24 impact statement was released in April 2010, and
25 comments were received and incorporated into the final

1 environmental impact statement, which was released
2 October 21st, last Friday, with the BLM record of
3 decision expected by the end of this year.

4 Q. What is the BLM record of decision? What does
5 that mean?

6 A. BY MR. PETRY: The record of decision will take
7 into account the preferred alternative that is stated in
8 the release of the final EIS. And in this situation,
9 the record of decision will indicate whether or not the
10 right-of-way would be issued.

11 Q. Is there another comment period still?

12 A. BY MR. PETRY: There is a comment period
13 associated, or there is -- there is a period associated
14 with the release of the final EIS, yes.

15 Q. So people could file objections?

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

17 Q. But they haven't, none that you know of?

18 A. BY MR. PETRY: None that I am aware of.

19 Q. So the final EIS we have marked as Exhibit 28.
20 So is that, is Exhibit 28 the final analysis through the
21 EIS process that's being presented to advise this
22 Committee and others?

23 A. BY MR. PETRY: Yes.

24 Q. You mentioned a draft EIS and a final EIS. Were
25 there any differences between those two?

1 A. BY MR. PETRY: Yes, there were.

2 Q. What were they?

3 A. BY MR. PETRY: In the final environmental impact
4 statement, a photovoltaic alternative was added and
5 ultimately chosen as the preferred alternative.
6 Additionally, the generation tie line alternative was
7 added to the final EIS.

8 Q. So let me understand. So the final EIS says what
9 about the photovoltaic option?

10 A. BY MR. PETRY: It states that the photovoltaic
11 option is the BLM's preferred alternative.

12 Q. And does that include the preferred alternative
13 transmission line as depicted in this application?

14 A. BY MR. PETRY: Yes, it does. It includes the
15 proposed alternative transmission line.

16 Q. What we are calling the preferred?

17 A. BY MR. PETRY: Which is the preferred?

18 Q. Yes.

19 A. BY MR. PETRY: Correct.

20 CHMN. FOREMAN: Let me stop here for a minute
21 and ask either one or both of you to sort of expand on
22 this. When you say preferred, you don't say only.

23 MR. SUNDLOF: No.

24 CHMN. FOREMAN: Is the inference the Committee
25 can draw from that that the BLM would prefer that the

1 preferred route be used but that if the alternative
2 route is selected that would still be legally supported,
3 they would still be willing to sign off on the project?

4 MR. SUNDLOF: That's correct. That is correct.

5 MR. PETRY: Yes, sir.

6 MR. TRENTER: I will add a little clarity. In
7 the proposed action of the draft there was only the
8 preferred route that we were presenting in this
9 application. In the final they added the proposed
10 alternate and said it had basically the same amount of
11 disturbance, so both would be evaluated moving forward.

12 CHMN. FOREMAN: And just to tie this point down,
13 am I correct in my understanding that in the decision,
14 the final decision -- what is that called -- record of
15 decision, there will not be a statement saying the line
16 shall be put here, it shall not be put there? The
17 record of decision will instead say that the impact of
18 the proposed project is acceptable if it is conducted
19 according to the way it was proposed, and we would
20 prefer that, and the preferred alignment is such and
21 such. Am I accurately paraphrasing what will be in that
22 final decision?

23 MR. TRENTER: You know, I am not quite sure what
24 the final rendering in the record of decision will be by
25 the BLM. Typically they would pick one of the

1 rights-of-way for the record of decision. They would
2 grant one of the rights-of-way. And at this time the
3 proposed action is the preferred route.

4 CHMN. FOREMAN: Okay, okay. All right.

5 MR. TRENTER: That makes sense.

6 BY MR. SUNDLOF:

7 Q. Let me just ask you, Mr. Trenter. I think people
8 are probably wondering this. What if the Committee
9 chooses the southern route but the BLM chooses the
10 northern route?

11 A. BY MR. TRENTER: Well, I do think, based on the
12 timing that we have right now, there is the flexibility
13 if the proposed was the selected route that, because the
14 record of decision hasn't been issued, they would have
15 the flexibility to do that if they wanted to.

16 In this particular case because we are
17 advocating the preferred route, which is the
18 environmentally preferred route in the proposed action,
19 I would assume the BLM will pick the preferred route.

20 MR. SUNDLOF: Okay. Does that answer the
21 question?

22 CHMN. FOREMAN: I think so. As I mentioned
23 earlier, it would make me a lot more comfortable if the
24 folks who were involved in federal decision making and
25 the folks involved with state decision making

1 communicated a little better and we had a little better
2 idea of what they expected from our process and we had a
3 little better understanding what they were doing in
4 their process.

5 But I do take the point that they would like to
6 have the preferred route selected. Maybe that's the
7 simplest and most straightforward.

8 MR. SUNDLOF: Well, a less straightforward
9 answer is that the Corporation Commission has the
10 ability to be a cooperating agency in the EIS process if
11 it chose to do so.

12 CHMN. FOREMAN: Yes. And this Committee does
13 not.

14 MR. SUNDLOF: Well, I guess you could, but you
15 maybe don't have the resources to do it.

16 CHMN. FOREMAN: Well, yes, since our budget is
17 zero and has been zero for a long time and we have no
18 staff, you are correct, we do not have the capability of
19 doing that.

20 BY MR. SUNDLOF:

21 Q. Okay. Mr. Petry, why don't we change gears a
22 little bit and describe the process for selecting this
23 particular location.

24 A. BY MR. PETRY: You bet. EPG prepared a
25 statewide site selection process for Sonoran Solar

1 Energy which concluded with the identification of six
2 locations on BLM lands. All six of the locations had
3 right-of-way applications filed with the BLM.

4 The primary criteria for selecting the Sonoran
5 Solar Energy project location included the following:
6 excellent solar resource availability; a proximity to
7 high voltage transmission infrastructure such as the
8 Jojoba substation; large contiguous land parcel with
9 minimal slope and absence of unique or highly sensitive
10 environmental resources; a proximity to other industrial
11 facilities such as the existing transmission lines, the
12 pipelines, the landfill, the mineral processing plant,
13 and the prison; additionally, the proximity to major
14 road networks such as SR-85 and the proximity to
15 electrical load centers.

16 Q. Now, let me clarify something. You said you
17 looked -- you identified six locations on BLM land. I
18 assume they would all be good, potentially, for a solar
19 site, right?

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

21 Q. So that doesn't mean the other ones were bad, you
22 just chose this one as the best of them?

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

24 Q. Okay. How did you then proceed?

25 A. BY MR. PETRY: Once the project site was

1 selected, the focus shifted to the identification of
2 potential transmission routes to connect the solar site
3 to the Jojoba substation. As the majority of the area
4 between the solar site and the Jojoba substation is a
5 designated BLM utility corridor, the potential routing
6 options were easily narrowed. Sonoran Solar sought to
7 maximize the uses of these existing utility corridors
8 consistent with the BLM's expressed preference.

9 Two transmission route options were identified.
10 The proposed route maximizes the use of the BLM
11 designated utility corridor. It parallels existing
12 facilities to a greater extent and travels a shorter
13 overall distance. An alternative route was also
14 identified, the majority of which is also contained
15 within the BLM designated utility corridor. However, it
16 parallels less existing transmission lines.

17 Q. And were both gen-tie alternatives included and
18 evaluated in the environmental impact statement?

19 A. BY MR. PETRY: Yes.

20 Q. And you already said the preferred, our preferred
21 alternative was also preferred by the BLM?

22 A. BY MR. PETRY: Yes.

23 Q. Mr. Petry, please describe the process conducted
24 by EPG and the applicant to determine the environmental
25 impacts of this project and to reach a conclusion on

1 environmental compatibility.

2 A. BY MR. PETRY: Certainly. EPG initiated
3 environmental studies and inventories to assess the
4 existing conditions in the project area as they pertain
5 to land use and recreation, visual resources, biological
6 resources, and cultural resources.

7 Once an inventory of existing conditions was
8 obtained, the potential impacts associated with the
9 500kV generation tie line were studied in detail. The
10 results of these studies are contained in Exhibits A, B,
11 C, D, E, and F of the CEC application.

12 Q. Let's start with B and F. Please describe your
13 findings for existing land use and recreation.

14 A. BY MR. PETRY: You bet. The generation tie line
15 conforms with the BLM resource management plan and the
16 Town of Buckeye general plan. The project is located
17 primarily on BLM land within an existing designated BLM
18 utility corridor, and parallels existing 500 kilovolt
19 transmission lines.

20 The primary uses within the study area, as
21 demonstrated on Exhibit 24 shows exists, include
22 industrial facilities such as the Jojoba substation, the
23 500kV transmission lines, natural gas pipelines, a
24 mineral processing facility and mine, and the southwest
25 regional landfill. There will be minimal impacts to

1 land use, dispersed recreation, and grazing. And the
2 nearest residence to the gen-tie line is over three
3 miles away to the east.

4 Q. For Mr. McGuire's interest, what is the grazing
5 capacity on that land?

6 A. BY MR. PENTRY: Well, it is a little difficult to
7 see on this map, but if you take a look at the eastern
8 portion of our study area there, you will see a vertical
9 line which indicates the separation between two
10 designated BLM grazing allotments. And the gen-tie,
11 both gen-tie alternatives are within the western
12 allotment, which is the Arnold allotment, which is zero
13 use. It is currently inactive.

14 Q. Okay. Let's go on to your findings for future
15 land use in Exhibit B.

16 A. BY MR. PENTRY: The plan development in the study
17 area includes the potential expansion of the Southwest
18 Regional Landfill, which you can see on the western
19 portion of Exhibit 25 showing the future land uses of
20 the area, a future 500kV transmission line, which you
21 can see running north of the Sonoran Desert National
22 Monument.

23 Q. Is that the second Pinal West line?

24 A. BY MR. PENTRY: Yes, it is. And the conceptual
25 Hassayampa freeway, which is shown as the dashed line

1 extending through the center of the study area. Based
2 on coordination with jurisdictions and local landowners
3 within the study area, there will be no adverse impact
4 on planned land uses.

5 Q. Okay. Let's move to visual resources. Please
6 describe your findings in Exhibit E of the application.

7 A. BY MR. PETRY: EPG completed a visual resource
8 analysis for the Sonoran Solar Energy project using the
9 BLM's visual resource management, or VRM, system as the
10 basis for analysis. The proposed gen-tie is located
11 within the BLM/VRM Class 4 area, which allows for
12 maximum modification or development and is the least
13 sensitive classification.

14 The proposed gen-tie primarily crosses areas of
15 average to low scenic quality which are already
16 dominated by existing transmission lines within the BLM
17 designated utility corridors. Views from trails within
18 the Sonoran Desert National Monument are completely
19 screened by the existing topography, and minimum visual
20 impacts are expected as a result of the gen-tie line.

21 Q. Views would also be screened by existing
22 transmission lines, I assume.

23 A. BY MR. PETRY: Well, maybe not necessarily
24 screened, but you would be viewing through them, yes.

25 Q. Okay. Please describe your findings for visual

1 resources from Exhibit E.

2 Oh, I am sorry. I just asked that, didn't I?

3 A. BY MR. PENTRY: You did. But we can show next
4 the visual simulations that were created --

5 Q. Yes, do that.

6 A. BY MR. PENTRY: -- depicting the gen-tie lines
7 for this project.

8 Again, you can see these in Exhibit G of the
9 application. And the example we are showing here, which
10 is included as Exhibit 26, is shown here, and the
11 graphic depicts two images. The top image is the
12 existing condition of the project area, and you are
13 viewing east from SR-85. What you can see -- pardon me.
14 The lower image will show the same view only with
15 simulated conditions showing the gen-tie.

16 Q. Let me stop you. I suppose this is a good thing,
17 but I can't see hardly any difference here. Can you point
18 out what the differences are?

19 A. BY MR. PENTRY: You bet. It is difficult to see.
20 If you look at the right side of the top image, you will
21 see the Jojoba substation, and to the left you can see
22 the Hassayampa 500kV line. Looking at the same features
23 on the simulated image below, to the left of the
24 Hassayampa line you can faintly see the common alignment
25 of both gen-tie alternatives.

1 Q. Okay. So your conclusion --

2 CHMN. FOREMAN: So what you are saying is that
3 the view, the present view that you have of the
4 transmission lines would be interfered with with the new
5 transmission lines?

6 MR. PETRY: It would add to the view.

7 CHMN. FOREMAN: Okay. All right. So it would
8 be more difficult to see the presently existing
9 transmission line with the new transmission line.

10 MR. PETRY: That would be true.

11 MR. SUNDLOF: Only the Chair of the Siting
12 Committee.

13 BY MR. SUNDLOF:

14 Q. All right. Let's move on. Please describe your
15 findings for biological resources located in C and D.

16 A. BY MR. PETRY: Sure. EPG conducted field
17 reviews and surveys and coordinated with the BLM, the
18 Arizona Game & Fish Department, and the United States
19 Fish & Wildlife Service. And as a result of the
20 information gathered from these field studies, in
21 coordination with these agencies, it has been determined
22 that the project area contains no suitable habitat for
23 and will have no adverse effects to any threatened or
24 endangered or special status species, and will result in
25 minimal impacts to biological resources as a whole.

1 Q. Let me just ask you. Are there special status
2 species that really even make a permanent home out here?

3 A. BY MR. PETRY: No.

4 Q. So they might walk by?

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

6 Q. Okay. But -- go ahead. What about the
7 possibility of that special status species might walk by?

8 A. BY MR. PETRY: Well, because there is the
9 potential for some species to traverse the project area,
10 Sonoran Solar Energy has worked directly with the
11 Arizona Game & Fish Department to develop a project
12 level mitigation protocol to further study the specific
13 animal species in the project vicinity, as mentioned in
14 Exhibit 27, which is a letter of support from the
15 Arizona Game & Fish Department.

16 CHMN. FOREMAN: I think Member Walker had a
17 question.

18 MEMBER WALKER: Mr. Petry and all this is about
19 the gen-tie line are you coordinated with Game & Fish
20 more broadly so that any impacts any of the wildlife
21 from the entirety of the project is being assessed to
22 monitor, correct?

23 MR. PETRY: Yes, Sonoran Solar Energy is.
24 They -- in fact, the BLM included the Arizona Game &
25 Fish Department as a cooperating agency in the

1 environmental impact statement.

2 BY MR. SUNDLOF:

3 Q. And what exhibit number is the Game & Fish
4 letter?

5 A. BY MR. PETRY: 27.

6 Q. Thank you.

7 Let's move on to your findings for cultural
8 resources. Please describe the cultural resources
9 finding, Exhibit E in the application.

10 A. BY MR. PETRY: Yes. In order to analyze the
11 effects of the proposed gen-tie and solar project to
12 cultural resources, EPG completed Class I and Class III
13 cultural surveys.

14 A Class I cultural survey is essentially a
15 desktop survey, wherein you can review previous
16 intensive surveys that have been completed in a given
17 project area.

18 Class III would be a pedestrian survey, wherein
19 archeologists will go to the project site and the area
20 of potential effect, traverse the area looking for any
21 signs of archeological sites.

22 As a result of these studies, no National
23 Register of Historic Places eligible sites will be
24 affected by the generation tie line alternatives. And
25 through the Section 106 cultural consultation process,

1 the BLM and the State Historic Preservation Office, or
2 SHPO, concluded that the project has minimal impacts to
3 cultural resources and meets SHPO guidelines through the
4 implementation of an historic properties treatment plan.

5 Q. What is an historic properties treatment plan?

6 A. BY MR. PETRY: An historic property treatment
7 plan details the necessary steps required to minimize
8 the impacts to any cultural sites in the project
9 vicinity.

10 Q. Please describe your findings from radio
11 interference and noise located in Exhibit I.

12 A. BY MR. PETRY: The proposed and alternative
13 gen-ties will have minimal impacts to radio interference
14 and noise. And as mentioned before, the nearest
15 residences are approximately three miles to the east of
16 the generation tie line.

17 Q. Okay. And no other businesses other than the
18 landfill in the general vicinity?

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

20 Q. Mr. Petry, can you comment in general on the
21 environmental compatibility of the generation tie line
22 alternatives and the project switchyard as depicted in the
23 application?

24 A. BY MR. PETRY: I can. In my professional
25 opinion, based on our analysis, each of the generation

1 tie line alternatives and the project switchyard are
2 environmentally compatible with the factors set forth in
3 A.R.S. Section 40-306 -- 360, excuse me.

4 Q. Point?

5 A. BY MR. PETRY: .06.

6 Q. Thank you.

7 A. BY MR. PETRY: And consistent with previous
8 projects approved by this Committee.

9 Q. Mr. Trenter, let my turn to you. What is your
10 view and EPG's overall view of the environmental
11 compatibility project?

12 A. BY MR. TRENTER: I concur with Mr. Petry.

13 MR. SUNDLOF: I have no further questions of the
14 panel.

15 CHMN. FOREMAN: I have a couple.

16

17

EXAMINATION

18 BY CHMN. FOREMAN:

19 Q. There is a reference on page C-6 of the
20 application that there may be a displacement of a small
21 number of burrowing owls and desert tortoise during the
22 construction project. And I assume that you have talked
23 with the Department of Game & Fish and would use the sorts
24 of scrutiny of the construction site and relocation of
25 those species found that would be consistent with their

1 guidelines?

2 A. BY MR. PETRY: That is correct. NextEra or
3 Sonoran Solar has actually contracted with a local
4 501(c)(3) called Wild at Heart who are licensed to
5 relocate burrowing owls and raptor species. But they
6 have already contracted with this entity and have
7 actually already done reconnaissance level surveys to
8 find out whether or not any of these owls are present in
9 the project area for, not only the gen-tie, but for the
10 solar site as a whole.

11 Q. My recollection is that there were two cultural
12 sites that were not registered but were potential
13 registered that were identified in the surveys that you
14 did.

15 A. BY MR. PETRY: There are two cultural sites in
16 proximity to the generation tie lines that are
17 considered what is considered register eligible. You
18 are correct in that they are not registered, but they
19 are eligible.

20 Q. This is -- I am referring to page E-6 of the
21 application, and you make the statement there, and I think
22 then also on page E-8, that you anticipate that you would
23 be able to easily avoid those sites during the
24 construction project by, what, by placement of the
25 structures in places that would not impact them?

1 A. BY MR. PETRY: That is correct. And along with
2 that, the historic properties treatment plan, which I
3 mentioned previously, includes language which outlines
4 how the construction of the lines will include a
5 monitoring plan that ensures that any construction
6 workers in the vicinity of these projects will not
7 impact those sites adversely.

8 Q. Has that historic properties treatment plan been
9 finalized?

10 A. BY MR. PETRY: It has not. It is currently with
11 the BLM's archeologist, in her review process, and is
12 awaiting the final approval. And it will also involve
13 the opinions of some of the Tribes that have been
14 consulted with on this project as part of the federal
15 process.

16 Q. All right. And do you know enough about the
17 status of the process to feel comfortable that whatever
18 provisions of that plan are likely to be accepted are
19 provisions that you will be able to live with?

20 A. BY MR. PETRY: I do. And I would say yes, the
21 anticipated provisions to that historic properties
22 treatment plan are something that NextEra, I believe,
23 would be willing to live with.

24 Q. Okay. And those would be, I assume, things like
25 just location of the structures and location of the access

1 roads and things like that?

2 A. BY MR. PETRY: That is correct, as well as a
3 continuing monitoring plan to ensure that after
4 construction no adverse impacts to these sites will
5 occur.

6 Q. We have as a standard condition of our CECs a
7 requirement that if you have any human remains that you
8 comply with the appropriate state statutes with regard to
9 disposal of those remains. If you have nonhuman remains
10 but if you have historical artifacts, I am assuming that
11 disclosure and treatment of those artifacts is something
12 that would be covered by the treatment plan?

13 A. BY MR. PETRY: Yes.

14 A. BY MR. TRENTER: That's correct.

15 CHMN. FOREMAN: Okay. Very good. Those, I
16 think, are the questions that I had. Any other
17 questions?

18 (No response.)

19 CHMN. FOREMAN: Very good. Thank you, Counsel.

20 MR. SUNDLOF: Thank you, Mr. Petry. You did a
21 great job.

22 MR. PETRY: Thank you.

23 MR. SUNDLOF: At this time I would like to offer
24 into evidence Exhibits 1 through 31.

25 CHMN. FOREMAN: All right. I think I am with

1 you up to Exhibit 28, but remind me.

2 MR. SUNDLOF: 28 is the environmental impact
3 statement.

4 CHMN. FOREMAN: Right. So what was 29, 30 and
5 31?

6 MR. SUNDLOF: 29 and 30 are the 10-year plans
7 that were identified by Mr. Etherton. They are pretty
8 thick and that's why we didn't put them in the books.

9 CHMN. FOREMAN: Okay.

10 MR. SUNDLOF: But we do have those available.
11 And 31 is the new letter that came in from Buckeye.

12 CHMN. FOREMAN: All right. Very good.
13 Exhibit 1 was, obviously, the application. All of the
14 other exhibits I believe are exhibits that you have used
15 primarily for demonstrative purposes and have been shown
16 to the Committee, is that correct?

17 MR. SUNDLOF: That is correct.

18 CHMN. FOREMAN: All right. Good cause
19 appearing, it is ordered admitting into evidence for
20 purposes of this hearing Exhibits S-1 through S-31.

21 (Exhibits S-1 through S-31 were admitted into
22 evidence.)

23 MR. SUNDLOF: Thank you.

24 And, Your Honor, I have Mr. McCloud prepared to
25 come up next, but as this is not part of our actual

1 case, this is more of just a discussion with the
2 Committee, more informal about PV and solar and other
3 technologies, I would like to rest our case right now
4 and then call Mr. McCloud.

5 CHMN. FOREMAN: All right. Do you want to make
6 any closing statement now, or do you want to wait and
7 make your closing later?

8 MR. SUNDLOF: Your Honor, I think I will make it
9 now. And I don't have much to add.

10 I appreciate your consideration of the
11 application. As you can see the project, I don't think
12 there is much question that the project meets the
13 environmental criteria of the statute. We have
14 demonstrated the purpose of the project. We have
15 demonstrated the need.

16 We have proposed a Certificate of Environmental
17 Compatibility form that we believe tracks the prior
18 conditions that are at least applicable to this kind of
19 project that have been approved by the Committee. We
20 have made one change, as you know, in Condition 19. And
21 we would recommend that the Committee adopt the
22 Certificate of Environmental Compatibility as submitted
23 with the one change.

24 CHMN. FOREMAN: Okay. I assume you meant
25 paragraph 19 or Condition 19 of the CEC?

1 MR. SUNDLOF: Yes.

2 CHMN. FOREMAN: Okay. All right. Very good.
3 Why don't we take then a brief recess. We will take
4 15 minutes. We will reconvene at 2:55. And if folks
5 have questions of Mr. McCloud, we can talk to him then.

6 And then, as I understand, he has a presentation
7 or brief presentation --

8 MR. SUNDLOF: Yes.

9 CHMN. FOREMAN: -- with regard to the --

10 MR. SUNDLOF: Mr. McCloud does have a
11 presentation. He has a few PowerPoints. And mostly he
12 is there to answer your questions, but he is going to
13 talk about the specific subject of comparing CSP
14 technology with PV technology and talk about why there
15 has been a shift from thermal to photovoltaic.

16 CHMN. FOREMAN: Are those slides reduced to an
17 exhibit form?

18 MR. SUNDLOF: We can do that.

19 CHMN. FOREMAN: I think it is important. What
20 we are doing here is making a record, not just educating
21 the Committee, but we are making a record. So I would
22 like to have those put into an exhibit so that they can
23 accompany the record that goes to the Commission.

24 MR. SUNDLOF: We are prepared to do that. We
25 will mark them as Exhibit 32 as a group.

1 CHMN. FOREMAN: Great. All right. We will be
2 in recess.

3 MEMBER WALKER: Mr. Chairman, can you help me
4 understand what the purpose is then of us discussing PV
5 relative to CSP if that's not in our purview in this
6 case, if the record is closed?

7 CHMN. FOREMAN: There have been actually more
8 than one member of the Commission that has expressed an
9 interest in understanding the use of PV and solar
10 thermal, what the present status of the decision making
11 is on whether to use whatever.

12 And so as a matter of completeness of the
13 record, and also I am curious myself as to whether there
14 is an environmental aspect or environmental impact to
15 the difference in solar thermal as opposed to PV other
16 than water that we ought to be aware of. So I had asked
17 counsel to have someone available who could answer
18 questions if Committee members had them. And apparently
19 he is also prepared to make a brief presentation to us.

20 MEMBER WALKER: Thank you, Chairman. So this
21 would be a free-ranging dialogue then on how solar PV
22 has come to see a reduction in price, Chinese
23 manufacturing effect, all of that?

24 CHMN. FOREMAN: I am not sure how free-ranging
25 it is going to be, but we wanted to at least get some of

1 the basic contours and basic information into the
2 record.

3 MEMBER WALKER: Thanks, Chairman.

4 CHMN. FOREMAN: Member Noland.

5 MEMBER NOLAND: Thank you, Mr. Chairman. I had
6 one question that may be answered by Mr. McCloud or may
7 be answered by someone else, and it really comes from
8 Member Haenichen's earlier question. When you talked
9 about the commenting of various agencies and people
10 during the process and when you went from CSP down to
11 photovoltaic, did you get comments from the utility
12 companies with regard to their potential entering into a
13 PPA on this with the difference between CSP and
14 photovoltaic? I didn't hear anybody mention that.

15 MR. SUNDLOF: That's an interesting question.
16 Let me ask Mr. Stankiewicz to come back and respond to
17 that question.

18 MR. STANKIEWICZ: So the question was whether or
19 not the utility submitted any comments to the BLM
20 regarding --

21 MR. SUNDLOF: I think it is more whether you got
22 any feedback from the utilities when you made the
23 switch, not necessarily commenting to the BLM.

24 MR. STANKIEWICZ: I can't say they didn't submit
25 any formal comments to the BLM.

1 MEMBER NOLAND: No, I am not saying BLM. I am
2 saying did you as a company receive comments from the
3 utility, potential purchasers of your energy, did you
4 receive any comments from them when you decided to go
5 from CSP to photovoltaic?

6 MR. STANKIEWICZ: I think what we had been
7 hearing from the utilities is that, and Mr. McCloud will
8 talk about this in his brief presentation, but one of
9 the primary drivers for the utilities as they are trying
10 to procure these renewable resources has always been
11 price. And the price point of the CSP type technology
12 at the time when we elected to make the change in
13 technology was hovering at level X. And the quality of
14 the technology of the PV and the price of the panels and
15 the price of everything else, the efficiencies were
16 going up, the prices were coming down.

17 And that is really where the -- that's where, as
18 an industry and as a company, really that's where we saw
19 the market going. And that is not necessarily expressed
20 explicitly by the utilities, but the overarching concern
21 has always been price. That's where the market is
22 going.

23 MEMBER NOLAND: Well, my follow-up to that
24 question, just a quick question -- he's gone, isn't
25 he? -- is really the difference between the two

1 technologies in being able to supply energy after the
2 sun goes down. And that was what we have heard in past
3 hearings about the, I guess, how CSP would be better
4 because it doesn't shut off when the need is still going
5 on in Arizona after the sun is no longer out. And so
6 did you hear anything from that end?

7 MR. STANKIEWICZ: I definitely agree the thermal
8 project is going to provide, you know, it is going to
9 allow you to even generate after the peak hits when the
10 sun goes down. You can do that through use of thermal
11 storage, which you can see that the Solana project does
12 in Gila Bend. You can do it with natural gas backup
13 like we were proposing to do.

14 That ability to generate once of the sun goes
15 down obviously comes at a pretty significant price tag.
16 Not only are you paying for the mirrors, the steel, and
17 the other -- the steam generation equipment and the
18 steam turbine, all that stuff, just to get the solar
19 thermal project, you also have to add the incremental
20 costs to give you the extra, you know, the extra
21 technology add-on really to generate after the sun goes
22 down.

23 So I would agree that it probably gives the
24 utilities a little bit more flexibility and allows them
25 to match their peak a little bit better. But what we

1 were seeing, that the price differential, you know,
2 didn't work for them.

3 MEMBER NOLAND: But you still haven't entered
4 into a PPA --

5 MR. STANKIEWICZ: That's correct.

6 MEMBER NOLAND: -- with that price differential,
7 is that correct?

8 MR. STANKIEWICZ: That's correct.

9 MEMBER NOLAND: Okay, thank you.

10 MR. SUNDLOF: Can I ask a follow-up?

11 CHMN. FOREMAN: Sure.

12 MR. SUNDLOF: I just -- you know, with any
13 renewable technology, I don't care if it is wind, I
14 don't care solar thermal, whatever, there is some
15 intermittency, is that right?

16 MR. STANKIEWICZ: Yeah, that's generally true.

17 MR. SUNDLOF: So there is different ways to
18 handle that. One would be through simple cycle peaking
19 units or buying off the market or any number of
20 different methods. So the utilities will be looking at
21 the most effective method to firm up their load demand.
22 Is that fair to say?

23 MR. STANKIEWICZ: I obviously can't speak on
24 behalf of the utilities, but obviously I would suspect
25 yes, they would do that.

1 MR. SUNDLOF: Thank you.

2 CHMN. FOREMAN: All right. Let's take about
3 15 minutes. We will be back at 3:00. And we can pursue
4 this at 3:00.

5 (A recess ensued from 2:49 p.m. to 3:04 p.m.)

6 CHMN. FOREMAN: All right. We will go back on
7 the record now.

8 Counsel, you had indicated to us that
9 Mr. McCloud would be available to talk to us. You may
10 proceed.

11 MR. SUNDLOF: Thank you. I have Mr. McCloud and
12 Mr. Busa up there, and let me start with Mr. McCloud.

13
14 DUANE McCLOUD and SCOTT BUSA,
15 called as witnesses, having been previously duly sworn
16 by the Chairman to speak the truth and nothing but the
17 truth, were examined and testified as follows:

18

19 DIRECT EXAMINATION

20 BY MR. SUNDLOF:

21 Q. Are you the same Duane McCloud that was sworn in
22 for Panel 1 but didn't get to say anything?

23 A. BY MR. McCLOUD: Yes, I am.

24 Q. Now you are going to have your chance.

25 Mr. McCloud, we finished the presentation on the gen-tie

1 line, but we wanted to bring you back, and Mr. Busa, too,
2 so that you can kind of answer some questions of the
3 Committee regarding solar, renewable solar projects and
4 the economics of various types of solar. And let me go
5 through a few questions with you that may be of interest
6 of the Committee and then the Committee can have at you in
7 a more informal way.

8 So, Mr. McCloud, the questions that I want to ask
9 involve the economics of thermal solar, which is also
10 called concentrated solar thermal, or CST, and the
11 economics of photovoltaic solar. Can you begin by
12 describing these two technologies?

13 A. BY MR. McCLOUD: Sure I have got a few
14 highpoints up on the screen. This. Is probably
15 redundant and pretty common knowledge, but I will go
16 through just basically some of the highlights.

17 Two fundamental technologies are out there,
18 photovoltaic and concentrating solar thermal. There is
19 a few other things that are kind of borderline between
20 the two, but I will focus on these.

21 Concentrating solar thermal uses -- concentrates
22 sunlight from the sun using mirrors into a thermal fluid
23 of some kind, heat transfer fluid. A heat transfer
24 fluid is then taken to a conventional steam power block,
25 and at that conventional steam power block electricity

1 is produced. So it is fundamentally a steam plant with
2 a very, very large boiler, if you will, hooked up to it.

3 Photovoltaic, completely different technology.
4 Power generated at individual panels is DC power and
5 converted to AC. The two -- as a result, photovoltaic
6 doesn't have some of the things -- and again, we talked
7 about them, they have been discussed here today. You
8 don't need very much water. You don't have any external
9 fuel. There is no thermal component. There is no heat
10 transfer fluid. So there is differences in the way the
11 projects were perceived from an environmental
12 standpoint.

13 Q. This next -- go ahead.

14 A. BY MR. McCLOUD: No, go ahead.

15 NextEra actually, I am familiar with both and I
16 think it was previously mentioned, we are the operator
17 of the SEGS facilities in California. We have been
18 involved in those projects to varying degrees since the
19 mid '90s, and have been the sole operator of the Kramer
20 Junction and Harper Lake facilities for about the last
21 seven years.

22 We also in that time frame have been involved in
23 the construction and operator in a number of
24 photovoltaic projects. On the utilities side of NextEra
25 we built and completed the DeSoto project, at

1 25 megawatts was the largest solar PV project in the
2 United States at the time. We also built several other
3 solar PV projects, and we have permitted and are under
4 construction in the case of our Genesis solar project in
5 California, a 250 megawatt solar thermal project.

6 Q. Thank you.

7 Please describe the market differences between
8 CST and PV.

9 A. BY MR. McCLOUD: A lot of the market differences
10 we are seeing in solar thermal versus PV -- markets may
11 be not exactly the right word.

12 And actually back up a little. I had a few
13 pictures in here. So just go forward a couple more. So
14 I mean we can -- we can go back to those if anybody
15 wants to look at pictures.

16 The market, it is not really location as much as
17 it is time. When we started on the current generation I
18 guess, if you will, of siting and developing large
19 solar, and this went back to about 2006, we were focused
20 on CST. At the time, for a large solar utility scale,
21 it was pretty much, at least in the market, the only
22 game in town. We looked at a number of sites. At one
23 point in time I think we were the largest holder of
24 SF-299s on BLM land in the country. We had sited or had
25 preliminarily sited somewhere on the order 20 to

1 30 different site locations scattered around the
2 southwestern U.S. as well as actually looking at a
3 number of private sites. And again, the focus at that
4 point in time was on concentrating solar power.

5 We went through a number of processes, initially
6 in California, to fully develop projects. We actually
7 permitted two projects in California. Likewise, we were
8 under a similar effort initially in Arizona.

9 I just made that reference to talk about now
10 what has happened since then. As previously mentioned,
11 we are in the construction of our Genesis solar project
12 in California, a fully developed project, power purchase
13 agreement on that, fully permitted project, and
14 developed a power purchase agreement on that project at
15 a rate that worked with a solar thermal project.

16 But at the same time, starting really in about
17 2007 into 2008, some things started to happen in the PV
18 world. A number of factors started to come into play.
19 First of all, I would say that the rise of cad tel, that
20 is First Solar, was one, one event that the market had
21 been predicting was going to happen to some degree for
22 some time and started to see those, some of those things
23 come into play.

24 At the same time we started to see a rise not
25 only in U.S. solar manufacturers' focus on

1 multicrystalline silicon technology, but we obviously
2 saw the huge, well documented rise come out of Southeast
3 Asia and China.

4 These increases in market happened at multiple
5 levels of the supply chain. In '06-'07 there was a
6 silicon shortage. That is, it seemed like an ingot of
7 crystalline silicon was worth more than gold for awhile.
8 That changed and went away. And it went away because
9 the market drove it to go away. It went from a handful
10 of manufacturers to a huge number of manufacturers
11 appearing on the scene all about the same time. At the
12 same time people making multicrystalline, not quite as
13 refined and not quite as technically difficult, were
14 making improvements in efficiency.

15 So what started to happen kind of slowly and
16 then at a somewhat accelerated rate is we saw the PV
17 panel pricing start to drop. And when it first started
18 to happen, I would say in '08, maybe even early '09, I
19 think we were kind of of the belief, well, it is kind of
20 a glitch in the market. There are things going on in
21 Europe. There are changes in incentives that are
22 happening. And we are not really sure how long this is
23 going to last.

24 Well, almost three years later it is still
25 lasting. And we are seeing a huge number of players

1 come into the market. We are seeing improvements that
2 have been made in technology to where efficiency on all
3 the PV panel technologies are going up. We are starting
4 to see some consolidation, but consolidation where
5 people that are making the most efficient products are
6 the ones that are doing the best. And we are not seeing
7 any consolidations having a significant impact in
8 pricing.

9 At the same time, and I have mentioned it, power
10 inverter efficiencies have gone up; not a big factor,
11 but enough that it contributes to it. The other thing
12 we are seeing as a result of experience of large solar
13 projects, in Europe as well as large solar projects
14 being built in the United States, is that large utility
15 scale solar projects are starting to get comfort by
16 off-takers, as we are seeing bigger and bigger projects
17 being built in the United States.

18 So all those factors together kind of led us to
19 a place where concentrated solar thermal stayed about
20 the same price range, some improvements that happened
21 over a period of time due to largely the U.S. economy
22 more than anything else, but at the same time PV was
23 dropping like a proverbial rock.

24 Q. Mr. McCloud, are there differences in the
25 environmental impact of the two technologies?

1 A. BY MR. McCLOUD: Yes, there are.

2 Next slide, please.

3 Since my history is kind of in the solar thermal
4 side of the business more so than it is in the PV side,
5 so they are not going say that solar thermal is a -- is
6 environmentally a bad technology, because I don't
7 believe it is, however, it is a more difficult
8 technology than PV is to site. Again, a lot of the
9 discussions have taken place here. Water is a big one,
10 especially in the southwest United States, where water
11 in most places is a pretty rare commodity.

12 So to go from an optimized CSP project, which is
13 going to be wet cooled and it is going to have water
14 going to boiler makeup, et cetera, to a similar sized
15 photovoltaic project, the water use dropped by almost a
16 factor of 100. And that's a huge driver for an awful
17 lot of locations. Even if we dry cool a CSP project we
18 are still using somewhere on the order 10 to 15 times as
19 much water as the same amount of water being used in a
20 PV, comparable PV project.

21 It is easier to site PV. When we go out and
22 look for locations for a CST project, we had some pretty
23 strict requirements on land, on how flat it had to be,
24 at least how flat it had to be when we got done with it.
25 And we have gotten a lot more latitude with PV. We have

1 to move a little bit of dirt here and there, but for the
2 most part we can take a little bit of roll and we can
3 take a little bit of this and that depending exactly
4 which technology we selected and we are okay with it.

5 So where nobody -- we would not think of siting
6 a CSP project, CST project, the Croft project for
7 certain, without doing a lot of civil work, even on a
8 good site, with a lot of PV sites we are basically just
9 mowing them and that's pretty much it.

10 The heat transfer fluid, made reference to
11 before, if we stick with a Therminol heat transfer
12 fluid, and just for reference, molten salt is out there
13 as well, but if we stick with a Therminol heat transfer
14 fluid, then it has its own set of environmental issues,
15 its own fire hazard and so on. Those are things that
16 completely go away with photovoltaics.

17 Economies of scale is another big driver. We
18 have seen that with a number of off-takers. We have
19 actually at this point in time built two five megawatt
20 projects in the United States on the NextEra Energy
21 resources side. We are third parties. We also just
22 bought into and are going to be the primary managing
23 partner, managing owner, of a 550 megawatt project in
24 Desert Sunlight in California. So we are kind of -- it
25 is something that is readily adaptable to whatever size

1 the interested party wants.

2 And timelines, again, this really relates back
3 to what is on the sheet as far as environmental impacts,
4 but usually it is a lot quicker to site a photovoltaic
5 project. Partially if it is smaller, certainly if you
6 are siting a five megawatt or 10 megawatt PV project it
7 is generally quick. If you are siting -- you can't site
8 a five, 10 megawatt CSP project because economics don't
9 make any sense. You are going to be in the 100 plus
10 megawatt range as a minimum. And, as a result, with the
11 incremental issues associated with it, you are going to
12 be in a longer process.

13 Q. What about the cost differences?

14 A. BY MR. McCLOUD: Cost differences, right now
15 where we are today, we can, even if we pick an optimized
16 size CST project, let's say 250 megawatt project like we
17 are building in California right now, and look at right
18 now replacing that either on an installed capacity basis
19 or an installed energy basis that is megawatt hours,
20 with a PV project, we can beat that easily today.

21 We believe that as time is going forward that
22 gap is just going to widen. There are technical
23 advances being made in CSP, but those technical advances
24 don't have a huge amount of room in order to save money,
25 certainly not with the things that we are familiar with,

1 which is primarily trough. There is work going on out
2 there on towers, and some of the tower work has
3 potential for doing some great things.

4 But the bottom line is at the end of the day
5 there is still a lot of steel, there is still a lot of
6 pumps, there is still a lot of infrastructure that has
7 to go into a solar thermal project. And the opportunity
8 for further reducing the cost to producing that PV
9 module, PV panel, is something that is much greater than
10 what the opportunities are in CSP. And as a result, I
11 mean that was the driver of, that was one of the
12 drivers -- there were many -- that was one of the
13 drivers for making the change that was made in Sonoran.
14 It is something that I think we have obviously -- not
15 just us, but we have seen the industry overall as a
16 whole made changes in those directions.

17 Q. Mr. McCloud, were you finished with your answer?
18 I am sorry.

19 A. BY MR. McCLOUD: Yeah.

20 Q. Okay. There was a question asked about the
21 ability of CSP to track, CST to track load better than
22 solar photovoltaic. Can you discuss those differences?

23 A. BY MR. McCLOUD: Yeah. I would argue there are
24 two different solar thermals out there. There is solar
25 thermal like we have at SEGS, not only like we have at

1 SEGS, more like what we are building at Genesis, which
2 is as available solar thermal. There is also solar
3 thermal that either through one of a couple different
4 possibilities it can follow demand more precisely, we
5 actually do that to some degree at SEGS, but
6 supplemental gas firing, which was something that was
7 discussed and looked at for Sonoran and I may go into a
8 little bit more in a minute. We can also do it with
9 solar thermal, excuse me, thermal storage. And thermal
10 storage was also something that was looked at and
11 discussed for Sonoran.

12 Both methods have pros and cons. Supplemental
13 gas firing, now you no longer really have a pure solar
14 project, now you have got a project that is really a gas
15 project. We will also have a project that is a gas
16 project with a really bad heat rate. Heat rate, just
17 for reference, is in the 11-5 to 14,500 Btu heat rate.
18 So it is something that, if you are putting it in, you
19 don't want to use it a lot. Thermal storage, however,
20 has a different set of disadvantages, and that's cost.

21 The incremental cost of thermal storage for a
22 three- to four-hour system on the same installed CSP
23 plant is an adder on the order of 25 to 35 percent. It
24 is a big hit. So it becomes a question of, you know,
25 what the value of those are and what do you do with

1 them.

2 Now, if you don't want that component, the other
3 solar thermal, then you have a behavior of a large
4 project that's not significantly different between a
5 solar thermal project and a PV project. Yeah, there is
6 a scenario in which one big cloud just appears out of
7 nowhere and covers the whole field, in which case you
8 will have more hangover of production with a solar
9 thermal project, what we call thermal inertia, but that
10 scenario is pretty unlikely.

11 The reality is on a solar thermal project, such
12 as the ones we have at SEGS, there are clouds coming.
13 They are not -- when you see them in advance they are
14 not, you know, real heavy, there is a little bit of
15 clouds here, little bit of clouds there, the output of
16 the unit falls, clouds go away, the output of the unit
17 comes back up.

18 For a solar PV project the size we are talking
19 about with Sonoran, the behavior is not going to be
20 substantially different. Yeah, you are going to have a
21 cloud over part of the field. Let's say in a couple
22 minutes we lose 10 megawatts. Okay? If it is a
23 10 megawatt project, that's a big deal. However, it is
24 a 300 megawatt project. 300 megawatt project, now that
25 decline is simply following ups and downs not

1 substantially different than what a solar thermal
2 project would have done.

3 So the advantage on a solar thermal project to
4 be able to respond to what the operator wants for
5 essentially a demand response load following capability,
6 however you want to look at it, really only comes into
7 play if you are really doing solar thermal or if you are
8 doing some type of gas backup. So it is there, but it
9 is a cost consideration. It is a significant cost
10 consideration.

11 Q. So, Mr. McCloud, with any renewable technology
12 you are going to find some way to firm it up. I guess
13 what you are saying is there are many ways to do that?

14 A. BY MR. McCLOUD: There are many ways to do that,
15 exactly. It becomes a question of -- everything always
16 boils down to a question of money at the end of the
17 day -- what is the best way to provide firm capacity, if
18 you want to look at it that way. And it is fairly
19 predictable capacity, by the way.

20 We are all pretty comfortable that we know that
21 9:00 at night the solar field, if it is a PV field or
22 conventional CSP field, it is not going to be running.
23 It is definitely much firmer capacity, say, than wind
24 is. We know that.

25 And so how do you get that? Well, you can get

1 that several ways. You can buy a thermal storage
2 system, or you can buy supplementing the solar CSP
3 project with gas and can take the really bad heat rate.
4 Or you can do it some other ways. You know, you can
5 essentially, you know, buy capacity off the grid from
6 some other place. You can put in simple cycle
7 generation. There is a lot of different ways you can do
8 it. And if you are a system operator or utility, you
9 are going to take all that and look at what makes the
10 most sense for you.

11 We, it has been said before, we are technology
12 neutral. And we really don't care. Right now we are
13 building -- I think we have a list of facilities, but
14 there is actually two 50 megawatt power plants that we
15 have under construction right now in Spain. Both those
16 projects have thermal storage. Both those projects have
17 thermal storage because it made sense for thermal
18 storage on them, considering how the tariffs and the
19 payments worked on them.

20 When we started siting and started developing
21 projects in the United States, which was about
22 concurrent the same time we started looking at the
23 projects in Spain, we sat down with every customer and
24 said okay, we can do this, we have got this option for
25 you and here is what it means and here is what it can do

1 and here is what it costs.

2 And in California -- and I will start with
3 California because it is a good reference point -- the
4 interest was, I would say, absolutely not there. The
5 concept that the California utilities had was one of,
6 well, you know what, no, it is not worth it, we have got
7 excess capacity, you have got this huge grid, it is
8 interconnected, we have got power coming from here and
9 there and everywhere else and there is no reason we
10 would ever do this, or at least not ever do this in the
11 foreseeable future.

12 When we got to Arizona the discussion changes.
13 The discussion changed for a number of reasons, one of
14 which, as has been previously referenced, Arizona has a
15 later peak than California does. California you have
16 got -- again, the peak for direct generation on solar
17 power is pretty concurrent with the load peak. There is
18 a little bit of shift but not a huge, horrible shift
19 part of it, because you have got so much of the
20 population living on the coast.

21 When you get to Arizona, not the case anymore.
22 Now you have got, yeah, everybody is going home from
23 work and the air conditioning demand goes up about the
24 time the sun is going down, so there is definitely a
25 delay in Arizona of two to three hours.

1 We spent a lot of time working with the Arizona
2 utilities to discuss this, to look at what the options
3 were. I think with one of them we ran something on the
4 order of -- basically we redesigned Sonoran 30 times in
5 about a month and said:

6 Okay. We can do a little of this, a little of
7 this, and a little of that. How does that look? We can
8 do this instead, this instead. How does that work for
9 you.

10 And we spent time with them looking at their
11 demand curves. And we actually ran, actually I remember
12 one time we ran seven years. They had actually hour by
13 hour load demands on their system for seven years. We
14 overlaid that with what the solar thermal plant would be
15 doing. We overlaid that with what the solar thermal
16 plant would be doing if we put three-hour storage on it,
17 six-hour storage on it, and then we did all the price
18 calculations and came back. And at the end of the day,
19 they said you know what, we really don't need that
20 storage thing, because everything we have looked at, we
21 can do this cheaper than you can do it with storage.

22 So we didn't make the decision that -- I would
23 argue we did not make the decision that this project
24 wasn't going to be a CSP project. We didn't make the
25 decision that we were or were not going to have thermal

1 storage on it. We let the customer tell us what they
2 wanted. And at the end of the day the customers, which
3 has been previously said, stated we want the cheapest
4 thing you can build us. And the cheapest thing we can
5 build right now looking forward with how we planned what
6 we are doing, what the impacts are going to be, the
7 amount of work we are going to have to do, is going to
8 be a PV plant.

9 CHMN. FOREMAN: Let me see if I understand what
10 you just said.

11 MR. McCLOUD: Okay.

12 CHMN. FOREMAN: I think what you just said was
13 that it is the market of the transaction where you are
14 selling electricity to retail electricity providers that
15 has been the most potent market as far as designing this
16 project, not the market that deals with the cost of the
17 collectors that you are using to construct the project.

18 MR. McCLOUD: No, it is definitely both. I mean
19 what we can do at any given time is a function what is
20 going on in the market, on the supply chain market.

21 CHMN. FOREMAN: But what you are telling us is
22 that the people who are most likely, whom you believe
23 are most likely to be your counterparty in a power
24 purchase agreement are telling you that the project you
25 have designed that's in this application is the project

1 that you think is most economically viable for you and
2 most likely to be able to be salable to them?

3 MR. McCLOUD: Absolutely. What they are telling
4 us is give us the least expensive solar power that you
5 can give us. And we are -- when we have looked at the
6 incremental cost associated with providing other
7 services that would be inherent with solar thermal or
8 added to solar thermal, that value simply is not there
9 to us.

10 CHMN. FOREMAN: Member Noland.

11 MEMBER NOLAND: And yet the only project that
12 has come before us to date is a CST project that had a
13 power purchase agreement before they even broke ground,
14 and it was sold to an Arizona utility company. So
15 because that was three years ago, is that because it was
16 cheaper three years ago than the PV technology or --

17 MR. McCLOUD: Three years ago was a different
18 world in this industry.

19 MEMBER NOLAND: Yeah.

20 MEMBER WALKER: Mr. McCloud, it would probably
21 be helpful if you explain a little bit the effect that
22 fracking has on natural gas prices and what that has
23 done to the gas-fired generation price, particularly in
24 the southwest where we have here in this market about
25 12,000 megawatts of capacity from merchant plants that

1 operate around 24, 25 percent annual capacity.

2 I mean, it has completely destroyed the cost to
3 back up solar, any sort of intermittent resource, hasn't
4 it? That natural gas-fired generation cost in 2011 and
5 going forward for the next four or five years, it is a
6 fraction of what it was in 2007, 2008. Didn't that --

7 MR. McCLOUD: Okay, yeah.

8 MEMBER WALKER: -- have a massive effect whether
9 or not you price in a solar thermal project because you
10 don't need to back it with expensive thermal technology
11 when you just go by cheap gas?

12 MR. McCLOUD: Absolutely. And there is nobody
13 less happy about low gas prices than the solar industry
14 right now.

15 MEMBER WALKER: It is interesting. A lot of the
16 solar industry are very anti-fracking because they say
17 that it is a -- despite all the good that it has done,
18 it has priced a lot of their projects out of the market,
19 isn't that true?

20 MR. McCLOUD: It definitely has. And not only
21 that, it would be -- I mean right now, even though right
22 now there is an excess capacity in most of the United
23 States, specifically in the southwest, it has also got
24 the mind-set moving people forward of, well, how long is
25 gas going to be cheap, and is gas going to be cheap for

1 20 years, 30 years, and if it is going to be cheap that
2 long, then --

3 I think the best way to look at, I look at solar
4 kind of like I look at hydro. It is a capital cost. It
5 is all up front. Your fuel is, you know, your debt. I
6 mean really it is. And so do you invest in a big
7 project that has very little operating cost going
8 forward for 25, 30, 40 years when all that money comes
9 up front and now you have got uncertainty about what
10 your other fuels are going to be over that time period?
11 So it is a very tough mark.

12 CHMN. FOREMAN: Member Noland.

13 MEMBER NOLAND: Mr. Chairman, and that was
14 exactly the pitch from Solana, was that you don't know
15 what the gas prices are going to be for the next
16 30 years. We know what the price is going to be on this
17 for the next 30 years. And if -- I don't remember
18 whether they had a gas backup. I don't believe they had
19 that at all. It was the molten salt storage for the
20 times when the sun was down and the peak periods that
21 they could still serve. We saw all of the timelines and
22 the energy needs and so on of the Phoenix area.

23 So that's just it. You have got to go forward.
24 And do you want the renewable energy that you have a set
25 cost on from the beginning? And so Solana said yes,

1 that's what we have. And they got a PPA for 30 years.
2 If I remember right, that was the time frame that they
3 used.

4 I just -- you know, I said this to somebody the
5 other day. Every time we have one of these hearings,
6 something new has happened. There is a new technology,
7 there is a new scenario. And this is about, I think,
8 our fifth or sixth, seventh solar project. Every single
9 time there is something different, something new,
10 something has changed, something is blue. But I
11 appreciate your information. It just, you know, what is
12 it going to be next time.

13 MR. McCLOUD: Well, just as a matter -- I am
14 sorry. Just as a matter of note, about the same time as
15 Abengoa signed the deal with APS is about the same time
16 we were signing the deal on Genesis in California. And
17 so it was kind of -- it was in a time period where I
18 think a lot of that was consideration. Gas was still a
19 little higher, the economy was still a little more up
20 and, you know, just a lot of things happened fairly
21 quickly. And I can't speak unilaterally for the world,
22 but I will go as far as saying that contract does not
23 exist today.

24 MEMBER WALKER: Right, that's for sure.

25 CHMN. FOREMAN: Member Haenichen.

1 MEMBER HAENICHEN: Thank you.

2 Earlier today I thought I heard someone say that
3 the footprint of a photovoltaic, large scale
4 photovoltaic plant is smaller than that for the same
5 output thermal plant. And I don't understand how that
6 can be, because the efficiency of the conversion of
7 light to electricity is much higher for a thermal plant,
8 is it not? I mean a good base-load thermal plant is
9 50 percent with a coal-fired plant. And PV is probably
10 14 percent with losses in the inverters and all.

11 MR. McCLOUD: Okay. And I used to have a slide
12 on that, but I don't have that one with me.

13 CHMN. FOREMAN: Could you go back to page 4 of
14 this.

15 MR. McCLOUD: Yeah. Page 4 is just the
16 simulations.

17 CHMN. FOREMAN: Yeah, but isn't one of the
18 simulations the solar thermal and one of the simulations
19 PV?

20 MR. McCLOUD: Yes. The top one is solar
21 thermal, the bottom one is PV.

22 Okay. Maybe I should have zoomed in a little
23 bit because right now one kind of looks like -- the top
24 one looks like a lake and the bottom one kind of looks
25 like a plowed field. But the top one has got a lot more

1 buildings and tanks and so on.

2 CHMN. FOREMAN: And as I understood from the
3 testimony, and please correct me if I am wrong, the top
4 one was supposed to be about twice as big as the bottom
5 one, is that true, 3,800 acres to 2,000 acres?

6 MR. McCLOUD: I mean, apropos, I am sure that's
7 where Member -- again, I will be perfectly honest, I am
8 not sure what size those two simulations were done on.

9 MR. STANKIEWICZ: I can talk to that briefly.

10 MR. BUSA: Let me interrupt, too. I don't know
11 if that's exactly the question, is to look at the
12 simulations and compare a footprint.

13 If I can ask a question, Mr. McCloud, just
14 explain a little bit about the changing footprint. It
15 used to be common knowledge that photovoltaic took up
16 more room than CSP.

17 Is that -- do I understand the question?

18 And that is changing a little bit.

19 MR. McCLOUD: Yeah, that's changing a little
20 bit.

21 I would like to get back and answer your
22 question a little more directly. But efficiencies in PV
23 have increased significantly every year. We are now
24 looking at panels on a panel efficiency level that I
25 would say the market norm on a multicrystalline is in

1 the 15 to 16 percent now, we have got monocrystallines
2 that are over 20 percent now. So that's improved
3 significantly.

4 For awhile there, there was a big push on
5 amorphous silica, the 7 or 8 percent. So I mean how
6 much space it takes is largely a function of what you
7 are doing and what technology you are using. But what
8 we are looking at installing now, it is pretty much a
9 wash. Okay? I mean again, granted, someone can talk to
10 the simulation, but it is pretty much a wash.

11 MEMBER HAENICHEN: I don't understand that, at
12 least on the efficiency.

13 MR. McCLOUD: I will talk to the efficiencies
14 here. I have got an amount of collected sunlight, if
15 you will, to electricity, I am going to start with my
16 panel, which is about 16 percent. I am going to go then
17 to an inverter, and we are up to 90 percent in inverter
18 territories now, another 1 percent loss or something on
19 that order of effect, one and a half percent in
20 transformers.

21 So I mean we are delivering, every time the sun
22 shines, we will talk about what sunshine is, every time
23 the sun shines we are delivering literally of light that
24 hits the panels we can deliver almost 15 percent of that
25 to the grid.

1 MEMBER HAENICHEN: Okay. These are single
2 crystalline or polycrystalline?

3 MR. McCLOUD: That's a polycrystalline. Single
4 crystalline, I can get that over 20 now.

5 MEMBER HAENICHEN: Yeah, but you can't afford
6 that.

7 MR. McCLOUD: Yeah, I agree.

8 Solar thermal, I am now going to a collection
9 system in the field. And that collection system has a
10 net effect of efficiency on the order of 80 percent
11 sunlight to what is in the fluid. Because I have got
12 optical efficiencies I am dealing with. I have got
13 efficiencies of the tube I am dealing with. I have got
14 heat losses from the tube when I am operating that I am
15 dealing with. 80 percent of it now is going down the
16 line and going to the power block. The power block is
17 getting it and converting it on wet cooled plant at
18 about 35 percent efficiency, 36 percent. It is not like
19 you are going to get on a supercritical steam unit,
20 because you just don't have the heat cycle efficiency
21 that you do on the big units. You add those two
22 together, you are still better than 15 percent. Okay?

23 However, PV does a couple other things for us.
24 PV doesn't need direct light. It doesn't need what we
25 call normal irradiance. PV can take diffused irradiance

1 from the side and make power with it. It is also very
2 happy taking the normal irradiance coming straight out
3 of the sky and making power out with it. So on a given
4 day PV is harvesting more of the sunlight than what you
5 can do with CSP because it doesn't have to reflect it.

6 MEMBER HAENICHEN: But this is single tracking
7 PV or flat plate?

8 MR. McCLOUD: That's true either way. That's
9 true either way. Single tracking now gets me, is now
10 getting me into incremental megawatt hours somewhere on
11 the order of 18 to 20 percent.

12 MEMBER HAENICHEN: Well, I meant your argument
13 about the peripheral radiation becomes less germane if
14 you are tracking and getting all of it direct?

15 MR. McCLOUD: It becomes less germane, but it is
16 still germane because I don't track -- I only track 45
17 to 45. So in the morning, I am still getting diffuse,
18 and I am still getting diffuse more effectively. Even
19 at midday, if the sun is directly overhead, I have still
20 got some diffuse like that. Any humidity or any
21 cloudiness or anything like that, I have still got some
22 diffuse, again, not a lot.

23 The other thing that happens with a solar
24 thermal plant, and this is true whether it is trough,
25 this is true whether it is tower, this is true whatever,

1 I have got to start it up, shut it down. The whole time
2 I am starting up, shut it down, that is, I don't have
3 enough heat left to generate. I have got nothing going
4 on.

5 The last thing I have got is, when I am not
6 running at night with the solar thermal plant, I have
7 got heat losses. In the case of a trough plant, I have
8 got miles and miles of glass tubes scattered around, and
9 that heat loss is significant. The heat loss is such
10 that in the winter, you only generate half as much of
11 the electricity as you think you should be doing because
12 of what you lose at night. It takes a lot longer to
13 heat up. It takes a lot longer to get there. Okay?

14 Again, if we think back to, say, Solana, for
15 example, there are things you can do with thermal
16 storage that helps mitigate that. But again, those are
17 costly things to make happen.

18 The overall net effectiveness -- and then there
19 is one last, one last variation in here, too. And that
20 is whether tracking or nontracking. With PV I can make
21 more efficient use of the land because I can space
22 tighter together. And I can space tighter together with
23 less losses. So that's the last thing I can do with PV.

24 At the end the day, it gets pretty close to
25 being a wash right now. There are things I can actually

1 do to make it better. The ultimate plant would be
2 crystalline with fixed, and everything is right on top
3 of each other or just coat the ground with it. But
4 again, it doesn't make sense from a cost standpoint.
5 But the two aren't very far apart depending exactly what
6 panel you use and exactly what technology you propose.
7 We are basically looking for the same acres per megawatt
8 now for either technology.

9 MEMBER HAENICHEN: So going back to Chairman
10 Foreman's comment then, why was this almost two to one
11 quoted in the materials we have been given, the 3800
12 acres versus --

13 MR. STANKIEWICZ: I am going to need you to jump
14 in on that.

15 MR. McCLOUD: Okay.

16 MR. STANKIEWICZ: So the original CSP facility
17 that we proposed was a 375 megawatt facility that would
18 occupy 3700 acres. And that's what is simulated on the
19 top photo here.

20 MEMBER HAENICHEN: Oh, I see. So it is not the
21 same size.

22 MR. STANKIEWICZ: No, it is not exactly the same
23 size. The bottom was 300 megawatts sited on
24 approximately 2,000 acres. And I know that I am going
25 to regret saying this, but the reason that we are up to

1 3700 acres on the top one had a lot to do with the
2 oversizing of the solar field because of the thermal
3 storage component that we were trying to design in
4 there. So basically what we tried to do is maximize the
5 usable space in that little trapezoid in between those
6 utility corridors and figure out what the megawatt
7 equivalent we could get out of it was and how much
8 storage we could get out of it was.

9 MEMBER HAENICHEN: But, of course, the energy is
10 going to come out of that storage, though. So you have
11 to count that on the plus side.

12 MR. STANKIEWICZ: Right.

13 MR. McCLOUD: Right. We had a higher capacity
14 factor with the original proposed CSP with the storage
15 than we do with the PV, absolutely.

16 MR. STANKIEWICZ: On the one-to-one basis, I
17 would say, without taking into consideration the
18 oversizing that we did with the solar field on the top
19 picture there, I would argue that the total acreage for
20 a similar size plant would be pretty much the same.

21 CHMN. FOREMAN: Member Walker.

22 MEMBER WALKER: Can we talk now a little bit
23 about the Chinese effect and what has that done to the
24 price of PV in the last four years?

25 MR. McCLOUD: It has made it drop substantially.

1 MEMBER WALKER: The 320 megawatts of PV that
2 NextEra operates throughout the U.S., were those panels
3 from China or U.S.?

4 MR. McCLOUD: Okay. The 300 -- first of all,
5 most of what we operate right now in the U.S. is CSP, it
6 is solar thermal. So that includes the SEGS facility,
7 SEGS 3 through 9. That includes the 75 megawatt
8 addition we just put on our Martin combined cycle plant
9 in Florida. Again, this is utility side.

10 I know we get confusing here, we mix up NextEra
11 Group with NextEra Energy Resources. And it does kind
12 of become a little confusing, especially for me because
13 I officially work for both groups.

14 But at the same time we installed 35 megawatts
15 of CSP, or, excuse me, PV in Florida, that was SunPower,
16 so probably Malaysia. We just finished installing,
17 building the largest concentrating PV project in the
18 U.S. in Hatch, New Mexico. And that's Amonix, so that's
19 California.

20 And I will be perfectly honest. I am not sure
21 whose panels we have in Jersey. Yingli? So that's
22 Chinese. And the project we just got involved with in
23 California, which is Desert Sunlight, is for solar. So
24 that kind of --

25 MEMBER WALKER: Well, it is going to be Mesa at

1 some point, but it is not Mesa now, is it?

2 MR. BUSA: And they won't be receiving panels
3 for another six months or receiving panels from First
4 Solar for another six months there so... And that, that
5 construction for that 550 megawatt project will be going
6 on for a couple years.

7 MEMBER WALKER: So at some point --

8 MR. BUSA: Most likely it makes a lot more
9 sense, I think, to ship them over from Arizona, from
10 here, than it is to bring them from the other
11 manufacturing facilities.

12 CHMN. FOREMAN: All right. Any other questions?

13 (No response.)

14 CHMN. FOREMAN: I want to thank you for
15 presenting this. It helps deepen and enrich our
16 understanding of the projects and the impact. So as I
17 said, I appreciate the fact that you folks were willing
18 to help us.

19 MR. SUNDLOF: Thank you, Chairman, Committee
20 members. We appreciate the opportunity.

21 CHMN. FOREMAN: All right. We have a decision
22 to make. We can try to push through and finish this
23 evening. We can wait until tomorrow, as I think I
24 outlined three options for us.

25 Member Eberhart is at a meeting and he said he

1 would be back in about a half an hour, or, I am sorry, a
2 little less than a half hour now. My judgment is that
3 we can probably get our deliberations completed on the
4 proposed CEC in this matter well before 6:00, that we
5 can see if anyone appears at the evening session, which
6 has been publicly noticed and which I think we have an
7 obligation to not cancel. And then after that session,
8 if there is something that we think would justify
9 reopening a portion of the case, either do it, consider
10 it then or at a future date or time; if we decide there
11 isn't anything that merits further consideration, take a
12 final roll call vote on the CEC that we have drafted.

13 What are your thoughts?

14 MEMBER PALMER: A vote could be taken at five
15 after 6:00 if nobody appears for public comment.

16 CHMN. FOREMAN: It will be 15 after 6:00. I
17 give people 15 minutes.

18 MEMBER PALMER: Well, you are more tolerant.

19 CHMN. FOREMAN: Yeah. It seems to me that would
20 be the way that we could proceed. Does anybody object
21 to proceeding in that way, or does anybody have a
22 preference for waiting until tomorrow?

23 MEMBER HAENICHEN: No, just with the proviso
24 that we can abort that plan if the timing doesn't work
25 out.

1 CHMN. FOREMAN: Absolutely. Absolutely.

2 MEMBER HAENICHEN: I have no objection.

3 CHMN. FOREMAN: All right. Then let's take a
4 15-minute recess until five after 4:00. Member Eberhart
5 had a meeting that he had to go to. He will be back, I
6 hope, shortly after 4:00. And we will go ahead and get
7 started on our deliberations then and proceed as rapidly
8 as we can. We are in recess.

9 (A recess ensued from 3:52 p.m. to 4:06 p.m.)

10 CHMN. FOREMAN: Let's see if we can take our
11 seats. All right. Let's go back on the record here.

12 Based on your discussions before, what I would
13 propose now is that we go through and deliberate on the
14 application that has been presented to us, and go
15 through and do the draft of the Certificate of
16 Environmental Compatibility, and then we will have a
17 final vote on the entire certificate and project, roll
18 call vote after the public comment session this evening,
19 assuming there isn't anything at the public comment
20 session that would lead us to think that we need to
21 inquire further.

22 And I think I want to ask first off. We had
23 public comment this morning. I have not received any
24 notice that anyone has requested public comment this
25 afternoon. Let me just make a call to those who are

1 present in the room. We have been talking about public
2 comment. Is there anyone here who wishes to make public
3 comment now rather than waiting until this evening?

4 (No response.)

5 CHMN. FOREMAN: All right. Very good.

6 The first issue that we need to address is the
7 issue of need. Is there a need for this project? Does
8 anyone wish to discuss the issue of need with regard to
9 this project?

10 Member Haenichen.

11 MEMBER HAENICHEN: Well, as I see it, the
12 principal need is to help the utilities meet their
13 portfolio standard requirements imposed upon them by the
14 Corporation Commission. And this need is prevalent in
15 the region here. So I think, in other words, I think
16 there will be a good market for this electricity.

17 CHMN. FOREMAN: Anybody else have thoughts?

18 I think that is certainly true. I think from a
19 legal point of view we can even narrow it further and
20 say that the need here is -- and I think we have to
21 remember this. Our legal jurisdiction does not go to
22 approving or not approving the solar collection project.

23 MEMBER HAENICHEN: Right.

24 CHMN. FOREMAN: If we assume that it is there,
25 is there a need for this generation tie in line from

1 that project to the grid?

2 MEMBER HAENICHEN: Absolutely.

3 CHMN. FOREMAN: And it seems that the evidence
4 is uncontradicted. So do I hear a motion then to find
5 that there is a need for this project?

6 MEMBER HAENICHEN: So moved.

7 MEMBER WALKER: Second.

8 CHMN. FOREMAN: We have a motion by Member
9 Haenichen, a second by Member Walker. Is there any
10 further discussion?

11 (No response.)

12 CHMN. FOREMAN: All those in favor signify by
13 saying aye.

14 (A chorus of ayes.)

15 CHMN. FOREMAN: Opposed no.

16 (No response.)

17 CHMN. FOREMAN: We have unanimously found that
18 there is a need for this project.

19 Now, it seems to me the next place for us to
20 move is to the two alternative locations, the preferred
21 alignment and the alternative alignment. Is there a
22 discussion on that?

23 Member Noland.

24 MEMBER NOLAND: Mr. Chairman, I make a motion
25 that we approve the preferred alignment. It makes

1 sense. It is, I think, more environmentally
2 responsible. And there is better access. And I just
3 believe that that is the, and should be, the preferred
4 route.

5 CHMN. FOREMAN: Is there a second?

6 MEMBER HAENICHEN: Second.

7 CHMN. FOREMAN: Second. Motion by Member
8 Noland, second by Member Haenichen that the Committee
9 adopt the preferred route. Is there any discussion,
10 further discussions?

11 I want to add just a point in passing that I am
12 taking into consideration in my vote also, in addition
13 to the points that Member Noland made, the fact that
14 this is the preferred route of the Bureau of Land
15 Management.

16 MEMBER HAENICHEN: Right.

17 CHMN. FOREMAN: They have conducted an extensive
18 study. They have evaluated, while their evaluation is
19 not using the identical legal criteria that we have,
20 their criteria are obviously similar, and they have
21 conducted, they have collected evidence and considered
22 evidence that is identical to what we would, should, and
23 have considered in this matter. And so the fact that
24 they have found -- have a strong preference for this is
25 something that I find persuasive also.

1 All right. All those in favor of the motion
2 then signify by saying aye.

3 (A chorus of ayes.)

4 CHMN. FOREMAN: Opposed no.

5 (No response.)

6 CHMN. FOREMAN: The Committee has unanimously
7 adopted the preferred route as the route for the
8 project.

9 Now, we have on the left screen a draft CEC that
10 has been submitted. We have a couple of changes. I
11 have asked Michele to change the dates and so on to
12 reflect that the hearing was solely today and that it
13 was conducted in Goodyear.

14 With regard to the members of the Committee, we
15 have Attorney General Horne's name corrected, and we
16 have Member Rodriguez' name deleted since she is still
17 recuperating and not available to be with us. Are there
18 any changes or corrections other than those that anyone
19 has with regard to the caption, the first few pages down
20 to the end of the list of members?

21 (No response.)

22 CHMN. FOREMAN: All right. I am just going to
23 keep marching through this. I have got two or three
24 points that I find that we might want to stop and talk
25 about, but most I think, most -- well, correct me if I

1 am wrong, this language is language that was taken
2 primarily from the Perrin wind ranch project, is that
3 correct?

4 MR. SUNDLOF: Yes, it was, Your Honor.

5 CHMN. FOREMAN: All right. We obviously have to
6 leave out -- whoa. I have always thought of myself as a
7 very speedy reader; however, you went right by me.

8 We have to leave the vote out.

9 We have a description of the project and the
10 location of the project and a reference to, I believe it
11 has been designated as, Exhibit A, which we have, I
12 think everybody should have, received a copy of Exhibit
13 A with a blue front on it like that. And this Exhibit A
14 has the preferred route in it.

15 So all the way up to the beginning of the
16 conditions, which would be on page 4, so down through
17 the end of page 3, are there any changes that anyone
18 thinks we ought to think about or talk about?

19 (No response.)

20 CHMN. FOREMAN: All right. Very good.

21 We go on then through Conditions 1, 2, 3, 4, go
22 to the next page, 5, 6. Let's stop at Condition 7.

23 Condition 7 contains the request by the
24 applicant for a 10-year life for this application grant.
25 I think that's what the folks requested in the Perrin

1 Ranch matter, and I think we ended up giving them seven
2 years.

3 MR. SUNDLOF: It was five.

4 CHMN. FOREMAN: Five years. Five years. We
5 have previously discussed the concern that granting an
6 authorization like this, a license to build a project
7 for an extended period of time basically ties up the
8 land, so you have a problem with opportunity cost. We
9 also have an economic climate that makes exact timing on
10 the financing and building projects problematic. So
11 what do you all think? Does anybody want to discuss the
12 10-year limit?

13 Member Walker.

14 MEMBER WALKER: Mr. Chairman, I support the
15 10-year limit in this case. I think it is different
16 from Perrin Ranch. Perrin Ranch they knew they were
17 going to move into construction. This is a different
18 situation. As we discussed with Mr. McCloud and
19 Mr. Busa, there are significant changes occurring
20 constantly that affect the solar industry.

21 BLM is aware of this project. The project meets
22 all of their needs. I don't know why we would in this
23 case vote to give the applicant less than 10 years. If
24 the Commission thinks it needs to change that, I think
25 that the Commission itself should address that. That's

1 my own view.

2 CHMN. FOREMAN: Anybody else want to be heard on
3 the 10 years?

4 Member Haenichen.

5 MEMBER HAENICHEN: I just have a question. I
6 hope someone can answer. In this case the land is owned
7 by the federal government, BLM. Do we have the
8 authority --

9 CHMN. FOREMAN: All except the --

10 MEMBER HAENICHEN: Yeah, I understand. But on
11 the BLM land, do we have the authority to commit an
12 entity like that to holding that land available for
13 10 years? I just don't know what the ramifications are.

14 CHMN. FOREMAN: Well, and, Counsel, maybe you
15 can help us here. How long does -- let's assume that
16 the EIS language is approved and there is a record of
17 decision. How long will that record of decision be good
18 for?

19 MR. SUNDLOF: Okay. Mr. Chairman,
20 Mr. Haenichen, two questions here. The first one is
21 that this is simply a permit term. That doesn't bind
22 the BLM to whatever they want to do. This Committee
23 doesn't bind them on the question of the terms of the
24 BLM right-of-way.

25 Mr. Stankiewicz, can you respond on that one?

1 MR. STANKIEWICZ: Yeah. Obviously, as we have
2 talked about before, the record of decision the BLM is
3 planning to issue wouldn't happen until December of this
4 year. So I couldn't -- I can't speak -- I haven't read
5 what their decision is going to be. I believe by
6 statute we will have to begin construction on the
7 project within five years. And the right-of-way, the
8 term of the right-of-way grant is generally issued for
9 up to 30 years with the opportunity to extend that
10 right-of-way grant at the conclusion of the 30-year
11 period.

12 CHMN. FOREMAN: Okay. I am not comfortable with
13 a 10-year grant in the ordinary case. Because this
14 project is overwhelmingly on federal land and because
15 the state portion of the land is very small and because
16 that portion of state land that's -- or of private land
17 that is state jurisdiction land is land that is very
18 close to this substation, I don't see that there is a
19 great opportunity cost for not going with the 10-year
20 period.

21 And so I would, although 10 years wouldn't
22 exactly be the period that I would pick, I would be
23 willing to support that in this case because it is an
24 exceptional case. So because that's already the
25 language there, I don't think we need a motion to change

1 it.

2 All right. Any other discussion then with
3 regard to paragraphs 8, 9, 10, 11, 12, 13, 14?

4 On Condition 15, I took the liberty of asking
5 Michele to include the Town of Buckeye and the City of
6 Goodyear as jurisdictions that would receive copies of
7 this certificate. I assume the applicant doesn't have a
8 problem with that.

9 MR. SUNDLOF: No objection, Your Honor.

10 CHMN. FOREMAN: Those two jurisdictions were, if
11 I remember correctly, cooperating agencies in the BLM
12 proceeding?

13 MR. STANKIEWICZ: That's correct, Mr. Foreman.

14 CHMN. FOREMAN: So they have expressed an
15 interest in this. And I think because they have
16 expressed that interest, we ought to make sure that they
17 get some form of formal notification of this. I think
18 we need a motion to amend this.

19 Do I hear a motion to add the Town of Buckeye
20 and City of Goodyear to jurisdictions who would receive
21 notice in paragraph 15?

22 MEMBER WALKER: So moved.

23 MEMBER NOLAND: Second.

24 CHMN. FOREMAN: Okay. Motion by Member Walker,
25 second by Member Noland. Is there further discussion?

1 (No response.)

2 CHMN. FOREMAN: All those in favor signify by
3 saying aye.

4 (A chorus of ayes.)

5 CHMN. FOREMAN: Opposed no.

6 (No response.)

7 CHMN. FOREMAN: We have unanimously agreed to
8 the amendment to Condition 15.

9 So 16, 17, 18, all of these --

10 MEMBER HAENICHEN: I have a --

11 CHMN. FOREMAN: Member Haenichen.

12 MEMBER HAENICHEN: On 18, it is no longer the
13 Department of Commerce Energy Office. It is the
14 Governor's Office of Energy Policy. And we should
15 change that.

16 CHMN. FOREMAN: Yes.

17 MEMBER HAENICHEN: And I so move.

18 CHMN. FOREMAN: Governor's Office of Energy
19 Policy. Governor's Office --

20 MEMBER HAENICHEN: Arizona Governor's Office --

21 CHMN. FOREMAN: Okay.

22 MEMBER HAENICHEN: -- of Energy Policy.

23 MR. SUNDLOF: Put Arizona there.

24 CHMN. FOREMAN: Okay. Very good.

25 Member Haenichen, let's back up to the

1 beginning, which is the top of page 2. You are listed
2 as the designee for the Director of Energy Office,
3 Arizona Department of Commerce. We have got to change
4 that.

5 MEMBER HAENICHEN: It is the same thing there,
6 page 2.

7 CHMN. FOREMAN: And we are still dealing with
8 the director or should we just say --

9 MEMBER HAENICHEN: Yes, she is the director.

10 CHMN. FOREMAN: Director of Governor's Office
11 for Energy Policy.

12 MEMBER HAENICHEN: Yes, Arizona Governor's
13 Office.

14 CHMN. FOREMAN: Arizona Governor's Office for
15 Energy Policy.

16 MEMBER HAENICHEN: Right. And I am the designee
17 of.

18 CHMN. FOREMAN: Right, the director of that.
19 Okay, very good.

20 MEMBER RICHINS: Is that something we should
21 plan for the legislature to make a name change?

22 CHMN. FOREMAN: Well, supposedly they made all
23 those changes when they granted the legislative
24 authorization. Correctly describing Member Haenichen's
25 office has been a moving target over the last year. It

1 has been -- seems like every time we do a new CEC we
2 have got to change the language.

3 MEMBER HAENICHEN: That's just to avoid
4 prosecution.

5 CHMN. FOREMAN: Well, I am glad of that.

6 All right. Let's move back then to paragraph
7 19. We have new language there, the language that was
8 discussed during our public comment session by
9 Mr. McDonald, I think was his name.

10 MR. SUNDLOF: Yes.

11 CHMN. FOREMAN: Does anybody want to be heard on
12 the new language in paragraph 19?

13 (No response.)

14 MEMBER NOLAND: Mr. Chairman, I make a motion
15 that we substitute this new language that we were
16 provided for the current language in No. 19.

17 CHMN. FOREMAN: Okay. Second?

18 MEMBER HAENICHEN: Second.

19 MEMBER PARKE: Second.

20 CHMN. FOREMAN: Second by Member Haenichen. And
21 I do think this is appropriate because, although this is
22 not -- this is the applicant's proposal, this language
23 is different from the language that is on the proposed
24 CEC that's presently filed with the Corporation
25 Commission. So I think it is good that we address that.

1 So is there any further discussion, then, on
2 whether we should adopt the newly proposed language to
3 paragraph 19? This would be the language that was
4 discussed earlier in the day.

5 (No response.)

6 MEMBER MCGUIRE: I am against it. I don't think
7 it has anything to do with us.

8 CHMN. FOREMAN: Okay, all right. Any other
9 thoughts?

10 (No response.)

11 CHMN. FOREMAN: All right.

12 MEMBER WALKER: Mr. Chairman, I agree. But this
13 was in fact the language that the Corporation Commission
14 developed and itself prefers, is that correct?

15 CHMN. FOREMAN: Yes. Well, this language was
16 originally --

17 MEMBER WALKER: The philosophy, I mean, as much
18 as it may be troubling to those of us who --

19 CHMN. FOREMAN: Those of us who are supportive
20 of something in this area have noted these projects are
21 sold as projects that will stimulate the economy of
22 Arizona because they will use Arizona workers and
23 Arizona goods and products. And gathering some
24 information to substantiate that I have always thought
25 was consistent with Ronald Reagan's advice to trust but

1 verify.

2 MEMBER WALKER: And I disagree, but I think that
3 the compromise that exists in this language is the
4 compromise between our positions itself. Would you
5 agree?

6 CHMN. FOREMAN: Yes, absolutely. Absolutely.
7 Member Palmer.

8 MEMBER PALMER: Thank you. May Jimmy Hoffa
9 strike me dead, but I think it could be interpreted as
10 an interference with commerce, interstate commerce with
11 moving groups of laborers from one state to another in
12 order to accomplish, you know, construction.

13 CHMN. FOREMAN: I think Jimmy will rest in
14 peace, because I don't think it does. This is an
15 information gathering requirement only. It doesn't say
16 you got to do -- who you have to hire and who you have
17 to contract with. It just simply says you need to
18 report.

19 So, anyway, we have a motion to accept it that
20 has been seconded. All in favor signify by saying aye.

21 (A chorus of ayes.)

22 CHMN. FOREMAN: Opposed no.

23 MEMBER MCGUIRE: No.

24 MEMBER EBERHART: No.

25 CHMN. FOREMAN: The ayes have it. Applicant's

1 new proposed Condition 19 is adopted.

2 Now we have findings of fact and conclusions of
3 law.

4 MEMBER NOLAND: Mr. Chairman.

5 CHMN. FOREMAN: Member Noland.

6 MEMBER NOLAND: Mr. Chairman, I would feel more
7 comfortable not doing the findings of fact and
8 conclusions of law until after the public hearing time
9 has passed.

10 CHMN. FOREMAN: Okay.

11 MEMBER NOLAND: That's just my own opinion.

12 CHMN. FOREMAN: I am comfortable with that. We
13 can stop here, wait until after the public comment
14 session; at the end of the public comment session, vote,
15 see if anybody has any problems with the remaining
16 language; and then have a, as is our custom, a roll call
17 vote on the entire integrated document. Does that work
18 for everybody?

19 MEMBER HAENICHEN: Yes.

20 CHMN. FOREMAN: Okay, very good. What we will
21 do then is recess now. We will reconvene at 6:00 p.m.
22 back in this room. We are in recess.

23 (A recess ensued from 4:29 p.m. to 6:03 p.m.)

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1 (The evening public comment session was opened.)

2 CHMN. FOREMAN: It is now a few minutes after
3 6:00. Am I correct in my understanding that no member
4 of the public has indicated an interest in commenting to
5 us about anything, much less anything related to the
6 application?

7 (No response.)

8 CHMN. FOREMAN: All right. We are going to wait
9 15 minutes. We have got a bit of a dust storm outside.
10 We want to make sure everybody has an opportunity to be
11 here and make whatever public comment they want. It
12 does appear that we may not have anyone, but we will
13 wait for 15 minutes to make sure that's true. And then
14 at 6:15 we will reconvene if no one has appeared before
15 then.

16 We have one additional sentence on the CEC that
17 we need to address. And then we will address the
18 findings of fact and conclusions of law and have a roll
19 call vote on the CEC. So we will be back at 6:15.

20 (A recess ensued from 6:05 p.m. to 6:14 p.m.)

21 CHMN. FOREMAN: Is there anyone here from the
22 public who would like to comment?

23 (No response.)

24 CHMN. FOREMAN: I do not see anyone.

25 We have not heard from anyone who has indicated

1 an interest in commenting this evening. So let us move
2 on then and go back to the CEC that we were looking at
3 earlier.

4 Michele pointed out to me, or someone pointed
5 out to me -- who was it that pointed out to me -- that
6 we had some language on the second page that relates to
7 intervention. And you can see it now on the screen
8 deleted.

9 Is there anyone who has any problems deleting
10 the language that refers to intervention since we have
11 no one intervening in this matter?

12 MEMBER HAENICHEN: No.

13 MEMBER NOLAND: I move we strike it.

14 CHMN. FOREMAN: Any second?

15 MEMBER PALMER: Second.

16 CHMN. FOREMAN: Motion by Member Noland, second
17 by Member Palmer. Any further discussion?

18 (No response.)

19 CHMN. FOREMAN: All in favor signify by saying
20 aye.

21 (A chorus of ayes.)

22 CHMN. FOREMAN: Opposed no.

23 (No response.)

24 CHMN. FOREMAN: You have unanimously agreed to
25 strike the language on page 2 relating to intervention.

1 Let's go now to the end of the CEC, the findings
2 of fact and conclusions of law that have been proposed.
3 Do we have any discussion concerning those?

4 MEMBER NOLAND: Mr. Chairman, I move that we
5 adopt the findings of fact and conclusions of law as
6 presented.

7 CHMN. FOREMAN: Do I hear a second?

8 MEMBER PALMER: Second.

9 CHMN. FOREMAN: Motion by Member Noland, second
10 by Member Palmer to adopt the language of the proposed
11 findings of fact and conclusions of law. Is there any
12 further discussion?

13 (No response.)

14 CHMN. FOREMAN: All those in favor signify by
15 saying aye.

16 (A chorus of ayes.)

17 CHMN. FOREMAN: Opposed no.

18 (No response.)

19 CHMN. FOREMAN: We have unanimously adopted the
20 findings of fact and conclusions of law.

21 So now the -- is there anything more that
22 anybody would like to discuss or feels we need to
23 discuss before we vote on the proposed CEC as we have
24 modified it during our deliberations?

25 MEMBER NOLAND: Mr. Chairman.

1 CHMN. FOREMAN: Yes.

2 MEMBER NOLAND: I move to adopt the Certificate
3 of Environmental Compatibility as modified and voted on
4 by the Committee.

5 MEMBER RICHINS: Second.

6 MEMBER McGUIRE: Second.

7 CHMN. FOREMAN: Motion by Member Noland, second
8 by Member Richins. We will have a roll call vote. Or
9 let me ask if there is further discussion. Motion has
10 been made to adopt the CEC as modified.

11 (No response.)

12 CHMN. FOREMAN: All right. Member Eberhart.

13 MEMBER EBERHART: Aye.

14 CHMN. FOREMAN: Member Lacey.

15 MEMBER LACEY: Aye.

16 CHMN. FOREMAN: Member McGuire.

17 MEMBER McGUIRE: Aye.

18 CHMN. FOREMAN: Member Noland.

19 MEMBER NOLAND: Aye.

20 CHMN. FOREMAN: Member Palmer.

21 MEMBER PALMER: Aye.

22 CHMN. FOREMAN: Member Parke.

23 MEMBER PARKE: Aye.

24 CHMN. FOREMAN: Member Richins.

25 MEMBER RICHINS: Aye.

1 CHMN. FOREMAN: Member Walker.

2 MEMBER WALKER: Aye.

3 CHMN. FOREMAN: The Chair votes aye.

4 By a vote of -- oh, I am sorry, Member
5 Haenichen.

6 MEMBER HAENICHEN: Aye.

7 CHMN. FOREMAN: I am glad that you called that
8 to my attention.

9 By a vote of 10 to 0, the Committee has adopted
10 the Certificate of Environmental Compatibility as
11 modified by its deliberations.

12 Are there any further matters that we need to
13 address?

14 I assume that the Committee will authorize me to
15 review the language on the clean copy that will be
16 presented to me by counsel for the applicant in the next
17 few ways.

18 MR. SUNDLOF: Yes, we will, Your Honor.

19 CHMN. FOREMAN: And I will sign that and file
20 that as soon as you provide it to me.

21 MR. SUNDLOF: Thank you. And I want to thank
22 the Committee very much for your attention and your
23 consideration in this case.

24 CHMN. FOREMAN: Great.

25 Do I hear a motion to adjourn?

1 MEMBER PARKE: So moved.

2 MEMBER NOLAND: Second.

3 CHMN. FOREMAN: All in favor signify by saying
4 aye.

5 (A chorus of ayes.)

6 CHMN. FOREMAN: Opposed no.

7 (No response.)

8 CHMN. FOREMAN: We are adjourned. Thank you,
9 folks.

10 (The hearing concluded at 6:19 p.m.)

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I, COLETTE E. ROSS, Certified Reporter No.
50658 for the State of Arizona, do hereby certify that
the foregoing printed pages constitute a full, true and
accurate transcript of the proceedings had in the
foregoing matter, all done to the best of my skill and
ability.

WITNESS my hand this 27th day of October,
2011.

COLETTE E. ROSS
Certified Reporter
Certificate No. 50658