

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

- - -

In the Matter of the :  
Application Seeking :  
Approval of Ohio Power :  
Company's Proposal to : Case No. 14-1693-EL-RDR  
Enter into an Affiliate :  
Power Purchase Agreement :  
for Inclusion in the Power:  
Purchase Agreement Rider. :

In the Matter of the :  
Application of Ohio Power :  
Company for Approval of : Case No. 14-1694-EL-AAM  
Certain Accounting :  
Authority. :

- - -

PROCEEDINGS

before Ms. Greta See and Ms. Sarah Parrot, Attorney  
Examiners, at the Public Utilities Commission of  
Ohio, 180 East Broad Street, Room 11-D, Columbus,  
Ohio, called at 9 a.m. on Monday, October 5, 2015.

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VOLUME VI

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On behalf of the Staff of the PUCO.

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Monday Morning Session,

October 5, 2015.

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EXAMINER SEE: Let's get started. Let's start the morning with brief appearances, name and the parties you represent only. We'll start with the company and move around the room.

MR. SATTERWHITE: Thank you, your Honor. On behalf of Ohio Power Company, Matthew Satterwhite, Steve Nourse, Christopher Miller, Matthew McKenzie, Dan Conway.

MS. KYLER: Good morning. On behalf of the Ohio Energy Group, Michael Kurtz, Kurt Boehm, and Jody Kyler.

MR. PRITCHARD: On behalf of IEU-Ohio, Matt Pritchard and Frank Darr.

MR. OLIKER: Good morning, your Honors. On behalf of IGS Energy, Joe Olikier.

MR. BEELER: On behalf of the staff of the Public Utilities Commission of Ohio, Steven Beeler and Werner Margard.

MR. MOORE: Good morning, your Honors. On behalf of the residential customers of AEP Ohio, the office of Consumers' Counsel, Bruce J. Weston, Ohio Consumers' Counsel, Kevin Moore, William Michael and

1 Jodi Bair.

2 MS. GHILONI: Good morning, your Honors.

3 On behalf of the Ohio Manufacturers Association  
4 Energy Group, Danielle Ghiloni and Kim Bojko.

5 MR. FISK: Good morning, your Honors. On  
6 behalf of the Sierra Club, Shannon Fisk.

7 MR. DOUGHERTY: On behalf of the Ohio  
8 Environmental Council and the Environmental Defense  
9 Fund, Trent Dougherty.

10 MS. FLEISHER: Good morning, your Honors.  
11 On behalf of the Environmental Law and Policy Center,  
12 Madeline Fleisher and Justin Vickers.

13 MR. SETTINERI: Good morning, your Honors.  
14 On behalf of PJM Power Providers Group, Electric  
15 Power Supply Association, Retail Energy Supply  
16 Association, Constellation NewEnergy Inc., and Exelon  
17 Generation Company, M. Howard Petricoff, Michael  
18 Settineri and Gretchen Petrucci.

19 MR. O'BRIEN: On behalf of the Ohio  
20 Hospital Association, Rick Sites and Tom O'Brien.

21 EXAMINER SEE: Any other counsel in the  
22 room that we missed?

23 With that, AEP would like to call its next  
24 witness.

25 Mr. Bradish, if you would please raise

1 your right hand.

2 (Witness sworn.)

3 EXAMINER SEE: Thank you. Have a seat.

4 - - -

5 ROBERT W. BRADISH

6 being first duly sworn, as prescribed by law, was  
7 examined and testified as follows:

8 DIRECT EXAMINATION

9 By Mr. Miller:

10 Q. Please state your name and business  
11 address for the record.

12 A. Robert Bradish, 700 Morrison Road, Gahanna  
13 43230.

14 Q. And by whom are you employed and in what  
15 capacity?

16 A. American Electric Power Service  
17 Corporation, I am vice president for development.

18 Q. Did you cause testimony to be filed in  
19 this case?

20 A. I did.

21 MR. MILLER: Your Honor, I would like to  
22 mark Mr. Bradish's testimony as Company Exhibit  
23 No. 7.

24 (EXHIBIT MARKED FOR IDENTIFICATION.)

25 Q. Mr. Bradish, do you have a copy of the

1 document I just marked as Company Exhibit No. 7 in  
2 front of you?

3 A. Yes, I do.

4 Q. Was this prepared by you or under your  
5 direction?

6 A. Yes, it was.

7 Q. Do you have any changes, additions, or  
8 corrections to your testimony at this time?

9 A. I do have one change. On page 9, line 8,  
10 the sentence that begins "Fifty percent of the  
11 remaining \$750 million may be shared with other PJM  
12 members if 765 kV options are approved as baseline  
13 upgrades." It should be changed to read:  
14 "Approximately, 50 percent of the remaining  
15 \$750 million may be shared with other PJM members if  
16 765 kV options are approved as baseline upgrades."

17 EXAMINER SEE: Mr. Bradish, could you read  
18 that one more time for me, please.

19 THE WITNESS: Sure. "Approximately,  
20 50 percent of the remaining \$750 million may be  
21 shared with other PJM members if 765 kV options are  
22 approved as baseline upgrades."

23 EXAMINER SEE: Thank you.

24 Q. Mr. Bradish, is that your only change?

25 A. Yes, it is.

1           Q.       With that, if I were to ask you each of  
2       the questions, under oath, would your answers be the  
3       same effective with that change in Company Exhibit 7?

4           A.       Yes, I would.

5                   MR. MILLER: Your Honor, I move for the  
6       admission of Company Exhibit 7 subject to  
7       cross-examination.

8                   EXAMINER SEE: Mr. Fisk.

9                   MR. FISK: Thank you, your Honor.

10                               - - -

11                               CROSS-EXAMINATION

12       By Mr. Fisk:

13           Q.       Good morning, Mr. Bradish.

14           A.       Good morning.

15           Q.       How are you doing today?

16           A.       I am doing well.

17           Q.       Good. If we could just define a few terms  
18       to make sure we are on the same page to start out  
19       with. If I refer to the applicant in this proceeding  
20       Ohio Power Company as "AEP Ohio," will you understand  
21       what I mean?

22           A.       Yes.

23           Q.       Okay. And can we agree to refer to AEP  
24       Generation Resources as "AEP Generation"?

25           A.       Yes.

1 Q. Okay. And if I refer to American Electric  
2 Power Company Incorporated simply as "AEP," will you  
3 understand what I mean?

4 A. Yes.

5 Q. Okay. And if I refer to the PPA units,  
6 will you understand I mean Cardinal unit 1,  
7 Conesville units 4, 5, and 6, Stewart units 1 through  
8 4 and Zimmer unit 1?

9 A. Yes.

10 Q. Okay. And your testimony addresses  
11 potential transmission reliability impacts if the PPA  
12 units were to be retired; is that right?

13 A. That's correct.

14 Q. Okay. And to identify those impacts, you  
15 carried out a transmission planning impact study  
16 that's described starting on page 6, line 14 of your  
17 testimony; is that right?

18 A. Yes, that's correct.

19 Q. Okay. And we are referring here to your  
20 May, 2015, testimony, right?

21 A. That's correct.

22 Q. Okay. And your team completed that study  
23 in June and July of 2014; is that right?

24 A. I think we did it during June and July,  
25 August probably when we wrapped everything up.

1           Q.       Okay, okay. You did that -- so it was  
2 completed before your previous testimony in this  
3 proceeding, correct?

4           A.       That's correct.

5           Q.       Okay. And the study that you present in  
6 your May, 2015, testimony is the same as the study  
7 you presented in your October, 2014, testimony; is  
8 that correct?

9           A.       That's correct.

10          Q.       And the transmission planning impact study  
11 involved a load flow analysis to determine whether  
12 the retirement of certain generating units would  
13 cause transmission reliability violations that would  
14 require mitigation; is that right?

15          A.       That's correct.

16          Q.       Okay. And the basis for that load flow  
17 analysis was PJM's 2019 regional transmission  
18 expansion plan summer peak case; is that right?

19          A.       That's correct.

20          Q.       And the regional transmission expansion  
21 plan, that's often referred to as "RTEP"; is that  
22 right?

23          A.       That's correct.

24          Q.       And the 2019 RTEP, that reflects what PJM  
25 expects the generation and transmission system to

1 look like in the summer of 2019; is that right?

2 A. That's correct.

3 Q. Okay. And that 2019 RTEP was created  
4 sometime in mid 2014; is that right?

5 A. Yes.

6 Q. Okay. And so just generally what PJM does  
7 is they have -- they have a listing of all the  
8 generating units within PJM and they turn off  
9 whatever generating units are expected to retire by  
10 mid 2019; is that right?

11 A. They will turn off what units, what they  
12 have told PJM that they plan to retire, so not so  
13 much their expectations, but what they have been  
14 told.

15 Q. Ones that have filed a notice with PJM  
16 that were intending to retire, right?

17 A. Yes.

18 Q. And then PJM adds to that list of units  
19 new generating units that are scheduled to go into  
20 service by the summer of 2019 and then if signed an  
21 interconnection agreement; is that right?

22 A. That's correct.

23 Q. Okay. And then the 2019 RTEP would also  
24 then include whatever transmission upgrades have been  
25 approved by the PJM board and are expected to be



1 completed by the summer of 2019; is that right?

2 A. That's correct.

3 Q. Okay. And then -- and then a utility is  
4 then able to take the 2019 RTEP and run it through a  
5 load flow model; is that right?

6 A. Yes.

7 Q. Okay. And in doing so, you then are able  
8 to determine whether there is any reliability  
9 violations in the transmission system; is that right?

10 A. That's correct.

11 Q. Okay. And then from that identification  
12 of trans -- reliability violation, you are then able  
13 to determine what sort of upgrades might be needed?

14 A. Yes, that's correct.

15 Q. Okay. And so to evaluate the transmission  
16 impacts of retiring a generating unit, you would take  
17 the 2019 RTEP and simply go into the files and turn  
18 off whatever unit you are assuming is retired?

19 A. That's how you create your change case,  
20 yes.

21 Q. Okay. And then you run that change case  
22 through the load flow model and see what reliability  
23 violations are identified?

24 A. That's correct.

25 Q. Okay. And similarly if you wanted to

1        assess the impact of a transmission upgrade, you  
2        could add that into the RTEP model?

3            A.        That's correct.

4            Q.        Okay. And then rerun the model to  
5        determine how it changes any potential reliability  
6        violations?

7            A.        Yes, that's correct.

8            Q.        Okay. And is it generally safe to say  
9        that the fewer generating units you assume will be  
10       retired in your load flow modeling the fewer  
11       transmission upgrades you'll need?

12          A.        No, I don't think it's just fewer. What  
13       matters is location. So it's not so much necessarily  
14       just the amount of megawatts but where those  
15       megawatts are located that matter in terms of the  
16       ultimate reliability impacts.

17          Q.        Okay. But holding -- holding location  
18       constant, if you go in the RTEP model and you  
19       retire -- you do a scenario where you have retired  
20       one generating unit and you compare it to a scenario  
21       where you have retired say three generating units,  
22       the scenario with three generating units retired will  
23       generally have larger transmission impacts than the  
24       scenario with one generating unit retired, correct?

25          A.        So, again, magnitude of megawatts retired

1 and location, so those are the two important things.  
2 So if one is different than three, megawatts-wise,  
3 the one with the bigger megawatt retirement will have  
4 more of an effect assuming they are in the same  
5 location.

6 Q. Okay, okay. So if in one scenario you  
7 retired unit A that's 500 megawatts and in another  
8 scenario you retire unit A and then also unit B and  
9 C, that second scenario will have greater  
10 transmission impacts because there is more megawatts  
11 being retired, right?

12 A. Yes.

13 Q. Okay. And if you could turn to your  
14 testimony at page 6.

15 A. Okay.

16 Q. Lines 15 to 19, there's first a question  
17 that asks what AEPGR Ohio generating units are  
18 expected to retire for the purpose of the  
19 transmission planning impact study; is that right?

20 A. That's correct.

21 Q. And your answer, first sentence, you  
22 identify the PPA units as being assumed to be  
23 retired?

24 A. Yes.

25 Q. Okay. And looking up to lines 1 through

1 13 on that page 6, you state that the focus of your  
2 testimony is "to provide an analysis of the  
3 transmission upgrades and associated costs that will  
4 be incurred if the PPA units are retired"; is that  
5 right?

6 A. Yes.

7 Q. Okay. And then your transmission impact  
8 planning study, looking on page 7, lines 17 to 18 of  
9 your testimony, you state that they have determined  
10 that both thermal overloads and low voltage  
11 conditions could result following retirement of the  
12 generating units; is that right?

13 A. Yes.

14 Q. Okay. And then over on page 9, lines 3 to  
15 4, you identify an estimated cost for the minimum  
16 upgrades required of \$1.6 billion; is that right?

17 A. Yes.

18 Q. Okay.

19 MR. FISK: Your Honors, may I approach?

20 EXAMINER SEE: Yes.

21 MR. FISK: I would like to mark this as  
22 Sierra Club Exhibit 24.

23 EXAMINER SEE: Mr. Fisk, are you reserving  
24 23?

25 MR. FISK: I'm sorry, maybe we are at 23.

1 Let's mark it 23.

2 EXAMINER SEE: So marked.

3 (EXHIBIT MARKED FOR IDENTIFICATION.)

4 Q. Mr. Bradish, you have been handed a  
5 document that's been marked as Sierra Club Exhibit 23  
6 and it is the company's response to Sierra Club  
7 RPD-2-71 Supplemental Attachment 1; is that correct?

8 A. Yes.

9 Q. Okay. And you've seen this document  
10 before, correct?

11 A. Yes, I have.

12 Q. Okay. And the document is entitled "PPA  
13 Deactivations-Ohio Transmission Assessment"; is that  
14 right?

15 A. Yes.

16 Q. Okay. And it's an 11-page, appears to be  
17 a PowerPoint probably that summarizes the  
18 transmission planning impact study that your team  
19 performed; is that right?

20 A. That's correct.

21 Q. And just to take a quick step back, you  
22 did not personally perform the transmission planning  
23 impact study, right?

24 A. That's correct.

25 Q. Okay. And it was done by your team?

1 A. My staff did that, yes.

2 Q. Okay. And you simply reviewed the  
3 results?

4 A. Yes.

5 Q. Okay. And no -- there was no outside  
6 consultant or entity involved in that transmission  
7 planning impact study, correct?

8 A. That's correct.

9 Q. Okay. And the document Sierra Club  
10 Exhibit 23 is dated September 4, 2015; is that right?

11 A. Yes, it is.

12 Q. Okay. So this document was created more  
13 than a year after your transmission planning impact  
14 study was completed; is that right?

15 A. That's correct.

16 Q. Okay. And if you turn to page 8 of the  
17 exhibit, the page has a header "AEP Upgrades Scope &  
18 Cost"; is that right?

19 A. Yes.

20 Q. Okay. And there's then a listing of 10  
21 sets of transmission upgrades; is that right?

22 A. Yes.

23 Q. Okay. And then there is a total planning  
24 cost of \$1.64 billion; is that right?

25 A. That's correct.

1           Q.       So the list on page 8 of Exhibit 23, is  
2       that the list that makes up the \$1.6 billion\$1.6  
3       billion of transmission upgrades identified on page 9  
4       of your testimony?

5           A.       Yes, it is.

6           Q.       Okay. And if you could turn to pages 2 to  
7       3 of your -- of Exhibit 23.

8           A.       Okay.

9           Q.       And on page 2 it says "Background." Do  
10      you see that?

11          A.       Yes.

12          Q.       Okay. And so this background section, am  
13      I correct it provides a basic overview of the  
14      transmission planning impact study that you ran?

15          A.       Yes, that's correct.

16          Q.       Okay. And if you turn over to page 3,  
17      there's a bullet point there that says "Retirements  
18      at Cardinal, Stuart and Zimmer plants plus the  
19      projected retirements of plants affected by 111(d)"  
20      and then there is a listing of seven states; is that  
21      right?

22          A.       Yes, it is.

23          Q.       Okay. And just to be clear when it says  
24      "retirements of Cardinal, Stuart and Zimmer plants,"  
25      Conesville should also be on there; is that right?

1 A. Yes, it should.

2 Q. And when it says "Cardinal" it should just  
3 be Cardinal unit 1?

4 A. That's correct.

5 Q. Okay. And then the projected retirement  
6 of plants of 111(d), 111(d) there refers to the Clean  
7 Power Plan; is that right?

8 A. Yes, it does.

9 Q. Okay. Okay. And if you flip over to  
10 page 4 of the exhibit, it says "Retirements &  
11 Dispatch - 2019 RTEP Model." Do you see that?

12 A. Yes.

13 Q. Okay. And the first bullet says  
14 "15,850 megawatts retired from the model"; is that  
15 right?

16 A. That's correct.

17 Q. Okay. And so these are megawatts that you  
18 had in the RTEP model and you went in and you turned  
19 those units off; is that right?

20 A. That's correct.

21 Q. Okay. And so those were units in PJM's  
22 RTEP model that had been turned on, correct?

23 A. That's correct.

24 Q. Okay. And so under Ohio, it says  
25 "Includes Conesville, Stewart, Zimmer & Cardinal:



1 4036.5 megawatts," right?

2 A. Yes.

3 Q. Okay. So in addition to evaluating the  
4 retirement of 4,036.5 megawatts of the PPA units,  
5 your transmission planning impact study also assumed  
6 approximately 11,800 megawatts of additional  
7 retirements; is that right?

8 A. Yes. Those retirements were associated  
9 with the Clean Power Plan --

10 Q. Okay.

11 A. -- that's occurring at the same time.

12 Q. Okay. So your load flow analysis that you  
13 are testifying to in this proceeding, did not look at  
14 retiring only the PPA units, correct?

15 A. The model assumed that the PPA units would  
16 retire in the future where the Clean Power Plan would  
17 be in effect.

18 Q. Okay. And that model assumed that all of  
19 the PPA units and the 11,800 megawatts of 111(d)  
20 generating units retired on June 1st, 2019; is that  
21 right?

22 A. For modeling purposes, correct.

23 Q. Okay. So if you turn over to pages 9 to  
24 10 of Exhibit 23, it says "Scope & Cost of Mitigation  
25 Plans."

1 A. Yes.

2 Q. Okay. And the first section it says  
3 Conesville units 4, 5, and 6; is that right?

4 A. Yes, it does.

5 Q. Okay. And then there is a list of AEP  
6 upgrades with a cost total of \$725 million; is that  
7 right?

8 A. That's correct.

9 Q. Okay. And that \$725 million figure is  
10 only if Conesville units 4, 5 and 6 and all  
11 11,800 megawatts of 111(d) units retire, correct?

12 A. Yes, that's Conesville with, again, the  
13 Clean Power Plan assumptions in the case.

14 Q. Okay. And you don't know what level of  
15 upgrades would be needed if just Conesville units 4,  
16 5, and 6, and not the 111(d) units retired, correct?

17 A. That's correct.

18 Q. And for that \$725 million figure, you  
19 don't know what portion of that figure is as a result  
20 of Conesville retiring versus as a result of the  
21 11,800 megawatts of 111(d) units retiring; is that  
22 right?

23 A. Those costs were driven by the Conesville  
24 retirement in that case.

25 Q. Okay. But you haven't analyzed what

1 portion of retirement -- of transmission upgrades  
2 would be needed if just the 111(d) units retired as  
3 opposed to the PPA units, correct?

4 A. No. You wouldn't do that analysis. And  
5 the issue you have there is the two events are  
6 happening at the same time and the two events will  
7 impact each other, so you have to model those  
8 together to get the combined impact. It's a  
9 compounding effect. So no, we want to get the right  
10 impact of retiring the PPA units.

11 Sometime in the future you have to model  
12 what's happening around it. So we model the clean  
13 power plant, what's happening around it, because the  
14 decisions are going to be made at the same time. And  
15 so you've got decisions being made to implement the  
16 Clean Power Plan. And then you have got, on top of  
17 that, the PPA units retiring. So you have to look at  
18 the combined benefit.

19 Q. And the Clean Power Plan retirements will  
20 happen, assuming the Clean Power Plan remains in  
21 effect, those will happen regardless of whether the  
22 PPA units retire, correct?

23 A. Assuming the Clean Power Plan stays in  
24 effect, there will be expectation that the generation  
25 units will retire.

1 Q. Okay. And so any transmission upgrade  
2 impacts from the retirement of Clean Power Plan units  
3 would be incurred regardless of whether PPA units  
4 retire, correct?

5 A. No. Like I said, they have a combined  
6 effect so they will include each other as they go  
7 forward. You are going to have to look at them both  
8 together. You cannot look at them separately and  
9 draw conclusions what's needed. You have to model  
10 them -- they will impact each other.

11 Q. So the results of your modeling in the  
12 Conesville units 4, 5, and 6 reflects that combined  
13 effect?

14 A. Yes.

15 Q. Okay. And you haven't attempted to do any  
16 modeling that separates that combined effect to  
17 determine what portions are for Conesville, what  
18 portions are for the 111(d) units, correct?

19 A. It would be inappropriate to do that.

20 Q. So you haven't done it?

21 A. So I have not.

22 Q. And then looking down in the next section  
23 of Cardinal unit 1, once again you've identified AEP  
24 upgrades as \$85 million; is that right?

25 A. That's correct.

1 Q. Okay. And, again, that \$85 million figure  
2 reflects the retirement of Cardinal unit 1 and all  
3 11,800 megawatts of 111(d) units; is that right?

4 A. Yes. It's done with the assumption the  
5 Clean Power Plan will be implemented, that's correct.

6 Q. And you haven't done -- and so that  
7 \$85 million figure reflects the combined effects of  
8 all of those retirements, correct?

9 A. That's correct.

10 Q. Okay. And you haven't done any analysis  
11 that attempts to break out those effects to look at  
12 what's caused by Cardinal retirement versus what's  
13 caused by the 111(d) retirements?

14 A. Again, it would be inappropriate, so the  
15 answer is no.

16 Q. So you haven't done that.

17 A. That's correct.

18 Q. Okay. Turning over to page 10, there's a  
19 reference to Stewart and Zimmer plants; is that  
20 right?

21 A. There is.

22 Q. Okay. And Stewart is misspelled there; is  
23 that right?

24 A. That's correct.

25 Q. Okay. And, again, there is the

1       \$240 million figure identified for AEP upgrades; is  
2       that right?

3           A.       That's correct.

4           Q.       Okay. And as with the previous two  
5       examples, that \$240 million figure reflects  
6       transmission upgrades needed due to the retirement of  
7       Stewart, Zimmer and all the 111(d) units?

8           A.       That's correct.

9           Q.       And so there's no -- you are not including  
10      breakout of what transmission upgrades would be  
11      needed for the retirement of just Stewart and Zimmer  
12      without the 111(d) retirements?

13          A.       That's correct. It would be  
14      inappropriate, so no, I did not do that.

15          Q.       Okay. And then finally, you have  
16      incremental upgrades to mitigate impacts of Stewart,  
17      Cardinal, Zimmer, Conesville plants; is that right?

18          A.       That's correct.

19          Q.       And -- and there, the reference to  
20      Cardinal is just Cardinal unit 1, right?

21          A.       That's correct.

22          Q.       And the -- you've identified \$640 million  
23      in upgrades; is that right?

24          A.       Yes.

25          Q.       Okay. And that's on top of the upgrades

1 identified in the other sections on page 9 and 10?

2 A. Yes.

3 Q. Okay. And that's because by adding in  
4 more units retiring, you end up with additional  
5 upgrades that are needed in comparison if you just  
6 consider the units separately?

7 A. Yes. It's the combined effect of all the  
8 units now together and what their impact would be.

9 Q. Okay. And then it also includes the  
10 effect of the 11,800 megawatts of 111(d) retiring,  
11 correct?

12 A. It does include the impact of the Clean  
13 Power Plan, yes.

14 Q. Okay. So with regards to all of the PPA  
15 units, you haven't presented any analysis of what the  
16 transmission upgrade costs of just retiring those  
17 units without the 111(d) retirements is, correct?

18 A. That's correct. It's not an appropriate  
19 analysis to do because of the combined effects.

20 Q. Okay. So if you go back to your  
21 testimony, page 6, lines 11 through 13, you have a  
22 sentence there that says, "The focus of my testimony  
23 will be to provide an analysis of the transmission  
24 upgrades and the associated costs that will be  
25 incurred if the PPA Units are retired." That's your

1 testimony?

2 A. Yes, it is.

3 Q. Okay. And wouldn't it be more accurate to  
4 say your testimony focuses on the transmission  
5 upgrades that may be incurred if the PPA units and  
6 11,800 megawatts of 111(d) generating units retired?

7 A. I don't know if I would characterize it  
8 that way. I would say if the PPA units are retired  
9 in the same time as the Clean Power Plan moves  
10 forward.

11 MR. FISK: I'm sorry, could I have that  
12 answer read back.

13 (Record read.)

14 Q. Because you're assuming that the Clean  
15 Power Plan will lead to the 11,800 megawatts of  
16 generating unit retirements, correct?

17 A. Yeah. At the time that was the analysis  
18 that we received from EPA was that the expectation  
19 was that generating units were going to retire as the  
20 Clean Power Plan moved forward, so we modeled that  
21 impact along with the PPA units.

22 Q. And by modeling that combined impact  
23 that's where you get the \$1.6 billion\$1.6 billion  
24 figure, correct?

25 A. That's correct.



1           Q.       So the transmission upgrades and  
2 associated costs that will be incurred that you  
3 reference on page 6 of your testimony is not just for  
4 the retirement of PPA units, correct?

5           A.       Yes, it's associated with retirement of  
6 PPA units.

7           Q.       Plus 11,800 megawatts of additional units?

8           A.       That's the future they are going to retire  
9 in, so you have got to model that future, so you put  
10 that future in there and then you retire the PPA  
11 units and that's the impact you get.

12          Q.       And you never mention that you included  
13 11,800 megawatts of additional units retiring in your  
14 transmission impact planning study and your  
15 testimony; is that correct?

16          A.       No. We didn't discuss the CCP plan -- we  
17 did not discuss the Clean Power Plan in this  
18 testimony, no.

19          Q.       Okay. So it's inaccurate to say that the  
20 associated costs incurred will be incurred if the PPA  
21 units are retired because there's other retirements  
22 included in that.

23          A.       What I said was it's accurate to say that  
24 this will be incurred that the PPA units retire at  
25 the same time the Clean Power Plan moves forward.

1 That's an accurate statement.

2 Q. But you did not include that additional  
3 portion about the Clean Power Plan anywhere in your  
4 testimony.

5 A. I did not.

6 Q. Okay. And if you turn to testimony --  
7 your testimony, page 10, lines 5 to 6, you have a  
8 sentence there that says "This analysis only  
9 considered the impacts resulting from the specific  
10 units listed above." Is that right?

11 A. That's correct.

12 Q. Okay. And that is not accurate, correct,  
13 because the analysis considered the impacts not just  
14 from only the specific units listed above, but also  
15 from the 11,800 megawatts of Clean Power Plan units?

16 A. No. These are -- the results we have are  
17 a result of the PPA units retiring. There are no  
18 Clean Power Plan units retiring in the central Ohio  
19 area so the results are driven by the fact that these  
20 units are retiring.

21 Q. You just testified though that the results  
22 are the combined effects of the Clean Power Plan  
23 units and the PPA units.

24 A. Yes. We modeled the Clean Power Plan in  
25 the future as going forward and then we retired these

1 units.

2 Q. And so the results reflect the combined  
3 effect of those Clean Power Plan units and the PPA  
4 units retiring.

5 A. Yes. We just -- we just talked about  
6 that, yes.

7 Q. Right. And so it's not just the impacts  
8 resulting from the specific units listed above.

9 A. It's -- yes, the 1.6 billion is a result  
10 of retiring those units in that future.

11 Q. And 11,800 megawatts of additional units.

12 A. That's how we model the Clean Power Plan  
13 because that was the best information we had  
14 available at the time, so I'm -- you can't separate  
15 that out, so we just modeled the future. We modeled  
16 the future the best we could and then we retired the  
17 units.

18 Q. Right. And so since you can't separate  
19 that out, you can't tell me how much of those 1.6  
20 billion in costs is due to adding 11,800 megawatts of  
21 additional retirements on top of your PPA units.

22 A. I did not assess the Clean Power Plan by  
23 itself, that's correct. Nor would I.

24 Q. But --

25 A. The issue was focusing on the PPA units so

1 I modeled the PPA units in that context.

2 Q. Okay. And if you did not assess the  
3 impacts of the Clean Power Plan, you can't tell me  
4 how much of the costs -- the \$1.6 billion cost is due  
5 to those Clean Power Plan retirements, correct?

6 A. If you retire these plants in 2019 under  
7 the assumption of what the best analysis we have  
8 about the Clean Power Plan, then the \$1.6 billion\$1.6  
9 billion is a reasonable estimate of what it would  
10 cost.

11 Q. Because -- but a portion of that cost at  
12 least is due to the Clean Power Plan retirements,  
13 correct?

14 A. The reinforcements were on our system.  
15 They are central Ohio. They were reinforcements all  
16 around central Ohio. So those were driven by those  
17 retirements. We had a couple of others because of  
18 the combined effects of those -- the Ohio retirements  
19 it drove problems within our APCo area and so we had  
20 to reinforce the APCo area because we had voltage  
21 concerns and distribution in the APCo areas.

22 Q. Did you speak with Mr. Vegas about your --  
23 the results of your transmission planning impact  
24 study?

25 A. I don't think I spoke with him about it.

1565

1 Q. Okay. So did you -- you don't recall ever  
2 informing him that the \$1.6 billion\$1.6 billion  
3 figure came from modeling that assumed the retirement  
4 of both PPA units and 11,800 megawatts 111(d) units?

5 A. I don't think I spoke to him about it.

6 Q. Okay. Did you ever speak with Mr. Fetter  
7 regarding the results of your transmission impact  
8 planning study?

9 A. I don't think I did.

10 Q. Okay. How about Mr. Allen?

11 A. I gave him the results.

12 Q. You gave him the results?

13 A. Yeah, the costs so he could model it.

14 Q. Okay. And did you ever tell Mr. Allen  
15 that the results came from a transmission impact  
16 planning study that assumed the retirement of not  
17 just the PPA units but also 11,800 megawatts of  
18 111(d) units?

19 A. I don't think I ever had those  
20 conversations with Mr. Allen.

21 MR. FISK: Okay. May I approach?

22 EXAMINER SEE: Yes.

23 MR. FISK: If I could have this marked as  
24 Sierra Club Exhibit 24.

25 EXAMINER SEE: So marked.

1 (EXHIBIT MARKED FOR IDENTIFICATION.)

2 Q. All right. Mr. Bradish, you have been  
3 handed an exhibit marked as Sierra Club Exhibit 24  
4 and it is the company's response to Sierra Club  
5 request INT-2-070; is that right?

6 A. That's correct.

7 Q. Okay. And you are identified as the  
8 individual who prepared this response; is that right?

9 A. Yeah, prepared under my direction, that's  
10 correct.

11 Q. So the responses were actually prepared by  
12 your team; is that correct?

13 A. That's correct.

14 Q. And there's a response, a supplemental  
15 response and an amended response; is that right?

16 A. That's correct.

17 Q. Okay. And if you turn over to the second  
18 page there's a subpart c. about one-third down the  
19 page. Do you see that?

20 A. That's correct.

21 Q. It says "One scenario included additional  
22 retirements"; is that right?

23 A. Uh-huh.

24 Q. Okay. And then there's a listing of those  
25 additional retirements that goes over onto page 3; is

1       that right?

2           A.       That's correct.

3           Q.       Okay. And this is the list of 111(d)  
4       retirements that you added to the 2019 RTEP model; is  
5       that right?

6           A.       That's correct.

7           Q.       Okay. And you received this list from  
8       Scott Weaver; is that right?

9           A.       I believe so.

10          Q.       And it's your understanding Mr. Weaver  
11       obtained this list from EPA's website; is that right?

12          A.       That's correct.

13          Q.       And you have never personally seen this  
14       list on the EPA's website.

15          A.       That's right.

16          Q.       And assuming EPA made this list, you do  
17       not know how EPA did so, right?

18          A.       No, I'm not familiar with how they created  
19       the list.

20          Q.       Okay. And you haven't done anything to  
21       verify whether any of the units on this list are  
22       expected to retire under the Clean Power Plan, right?

23          A.       No, I took the EPA's analysis as the best  
24       information we had at the time and we used that  
25       analysis.

1           Q.       But you have never seen this list  
2       presented in a document that says it's from EPA,  
3       correct?

4           A.       So the document that had this list would  
5       have identified itself as an EPA document, but it  
6       came from a co-worker who said it came from the EPA's  
7       website. I'm confident it was an EPA document that  
8       this came from.

9                   MR. FISK: Could I have the answer read  
10       back.

11                   (Record read.)

12          Q.       Okay. I'm sorry, I wasn't sure if I heard  
13       the answer correctly. You said the document that  
14       this list came would or would not have identified  
15       itself as an EPA document?

16          A.       I'm assuming EPA would have identified it  
17       as its own document.

18          Q.       But the document you received the list in  
19       did not actually have anything on it saying it was an  
20       EPA -- from EPA outside of what Mr. Weaver might have  
21       told you?

22          A.       I don't recall.

23          Q.       Okay. And you received this list in an  
24       e-mail from Mr. Weaver?

25          A.       I believe that's how he communicated it to



1 me, yes.

2 Q. And are you aware of EPA's IPM modeling?

3 A. Yes, I am.

4 Q. Okay. Have you ever done any work with  
5 IPM modeling?

6 A. I have.

7 Q. Okay. Do you know if this list came out  
8 of IPM modeling?

9 A. That's my understanding.

10 Q. Okay. And the -- this list of 111(d)  
11 units is based on the draft or proposed Clean Power  
12 Plan, correct?

13 A. That's correct.

14 Q. So the plan, since this list was created,  
15 the plan has been finalized?

16 A. That's my understanding.

17 Q. And the list of plants that may retire  
18 under the final Clean Power Plan may be different  
19 than the list you use in your analysis; is that  
20 right?

21 A. That's correct.

22 Q. We don't actually know if this list  
23 reflects what will happen in the future, right?

24 A. Until I get better information, this is  
25 the best information I had to do the analysis.

1 Q. Okay. But you can't tell me for sure this  
2 is what's going to happen in the future?

3 A. I cannot predict the future.

4 Q. Okay. And if you look at the list under  
5 Kentucky, there is an identification of a Big Sandy  
6 unit; is that right?

7 A. Yes.

8 Q. And that unit is owned by AEP?

9 A. Yes, it is.

10 Q. Okay. And that unit is converting to  
11 natural gas, is it not?

12 A. It is now.

13 Q. And it's already converted?

14 A. No. It's now in the process is my  
15 understanding.

16 Q. Okay.

17 A. At the time we did this I don't believe  
18 Kentucky had ruled as to whether or not Big Sandy,  
19 they were going to allow Big Sandy to convert, but  
20 that ruling has since come out and it is converting  
21 to natural gas.

22 Q. Okay. And the increase of use of natural  
23 gas units is -- is one element of potential  
24 compliance with the Clean Power Plan, correct?

25 A. Yes.

1 Q. Okay. Would you agree it seems unlikely  
2 that a natural gas unit would retire as a result of  
3 the Clean Power Plan?

4 A. I can't make that assumption. I am not  
5 the generation expert so I just go with the list  
6 that's provided.

7 Q. Okay. So you don't know whether a natural  
8 gas unit would retire as a result of the Clean Power  
9 Plan.

10 A. No, I don't.

11 Q. Okay. And you don't know of any plans  
12 that AEP has to retire the Big Sandy unit, correct?

13 A. Not at this time.

14 Q. And over on the next page under Ohio you  
15 have the retirement of Avon Lake; is that right?

16 A. That's correct.

17 Q. Okay. And do you know that Avon Lake has  
18 proposed to convert to natural gas?

19 A. Actually, the most recent information I  
20 got on that was that energy has decided to not  
21 convert to natural gas and move to coal.

22 Q. Okay.

23 A. It was a recent announcement that came out  
24 and my understanding is they had a problem with  
25 getting the pipeline or something to it, so they were

1 deciding to move forward with coal instead.

2 Q. Okay. They have --

3 A. That's a public announcement.

4 Q. At least they have proposed the conversion  
5 to natural gas, correct?

6 A. I believe they did at one time.

7 Q. You believe what?

8 A. I believe they did at one time.

9 Q. Okay. And to your knowledge there has  
10 been no announcement that Avon Lake is going to  
11 retire, correct?

12 A. No. I am not aware of any announcement.

13 Q. Are you aware of an announcement that any  
14 of the units on this list of 111(d) units is going to  
15 retire?

16 A. That's not the analysis I did. The  
17 analysis I took was EPA's assessment of whether or  
18 not these units would retire. So I did not do an  
19 analysis of whether these units would retire. I took  
20 the best available information from EPA and modeled  
21 that information.

22 Q. And you can't identify the link at which  
23 you contend this list came from the EPA's website,  
24 can you?

25 A. I cannot.

1 Q. And the initial limits under the Clean  
2 Power Plan do not go into effect until 2022; is that  
3 right?

4 A. Can you repeat the question, please?  
5 (Record read.)

6 A. The new -- the new rule as opposed to the  
7 proposed, yes.

8 Q. The final rule.

9 A. The final rule, the proposed, was 2020.

10 Q. And under the final rule, 2022 is just an  
11 interim limit, correct?

12 A. Again, you would have to ask John McManus,  
13 Witness McManus about those questions. I am not an  
14 expert on the final rule.

15 Q. So you don't have any knowledge as to when  
16 compliance under the Clean Power Plan might be  
17 required?

18 A. It starts in 2022, but I don't know the  
19 details beyond that.

20 Q. Okay. And under the draft plan, the  
21 compliance deadline was 2020; is that right?

22 A. Yes.

23 Q. And that was an additional deadline; is  
24 that right?

25 A. That's correct.

1 Q. And there's a final -- a final limit in  
2 2030?

3 A. That's my understanding.

4 Q. Okay. And is your understanding then that  
5 units were able to -- states were then able to  
6 average emissions over that 2020 to 2029 period?

7 A. I believe that was my understanding, yes.

8 Q. Okay. And you did not evaluate in what  
9 years various generating units might actually retire  
10 under the Clean Power Plan, right?

11 A. No. Again, I went with EPA's analysis  
12 that said the list they gave us of the units that  
13 would retire by 2020. They weren't going to retire  
14 over the timeframe. These units were to retire by  
15 2020.

16 Q. Okay. And that, again, Mr. Weaver told  
17 you that EPA had said.

18 A. That was the list we received from  
19 Mr. Weaver.

20 Q. And Mr. Weaver told you that EPA claimed  
21 those units would retire by 2020?

22 A. That was my understanding what that  
23 document represented, yes.

24 Q. Okay. So you've never seen any statements  
25 from EPA saying that those units would retire in

1 2020, right?

2 A. Not that I can recall.

3 Q. Okay. All right. And if you look at  
4 subpart a.ii. of Sierra Club Interrogatory 2-70 which  
5 is Exhibit 24.

6 A. Okay.

7 Q. There is a second -- the third sentence  
8 references AEP developed and assessed five different  
9 scenarios; is that right?

10 A. Yes.

11 Q. Okay. And the first four are retirement  
12 of various subsets of PPA units; is that right?

13 A. That's correct.

14 Q. Okay. And for scenario 2, that should say  
15 retirement of Cardinal unit 1?

16 A. Yes.

17 Q. Okay. And scenarios 1 through 4 did not  
18 involve the retirement of any of the 111(d) units,  
19 correct?

20 A. That's right. We haven't gotten to that  
21 model yet.

22 Q. I'm sorry, what?

23 A. We had not gotten to that model yet.

24 Q. And you have never looked at the results  
25 of the scenarios 1 through 4, right?

1           A.       I haven't, no.

2           Q.       And modeling scenarios 1 through 4 is not  
3 complete; is that right?

4           A.       Yeah. So modeling of 1 through 4 was for  
5 the planners to develop an assessment of how they got  
6 -- so they would get an understanding how the grid  
7 would respond as these units were retiring. We were  
8 making a very large change to the model and these  
9 models are sensitive to large changes. And you also  
10 want to make sure that as you go through this, that  
11 the changes you see and the results you see make  
12 sense and that strange things aren't happening.

13                   So, in order to do that, you work through  
14 the analysis. So the planners will work through an  
15 analysis. They will model different pieces of it to  
16 get a feel for it and then they'll put it all  
17 together in the final scenario that models everything  
18 together. So those other four scenarios are for the  
19 planner to understand what happens to the model when  
20 we get to the model we are using -- going to use for  
21 analysis.

22          Q.       And so you could have completed the  
23 modeling of scenarios 1 through 4, correct?

24          A.       You can run that analysis but it wouldn't  
25 have done any good.



1           Q.       And that analysis would tell you what the  
2       transmission upgrades -- what the transmission  
3       impacts of retiring, say, scenario 1, retiring just  
4       the Conesville units would be, correct?

5           A.       If you don't model the Clean Power Plan,  
6       you are going to model that impact in a world that  
7       won't exist. The Clean Power Plan is going forward.  
8       I don't -- I don't know how I can communicate that.  
9       It's going forward. So you have to model the  
10      retirements in the world that we are going to be  
11      living in and that's with the Clean Power Plan. So  
12      you could do that, but it's a waste of time. I don't  
13      know why you would do that.

14          Q.       And if you did do that, you would have an  
15      assessment of the reliability impacts of just  
16      retiring Conesville units, correct?

17          A.       In a world that doesn't exist, yes.

18          Q.       Well, all of the RTEP modeling is based on  
19      projection, correct?

20          A.       Sure.

21          Q.       And we don't know what the world is going  
22      to look like in 2019, corrects?

23          A.       But we do have an assessment, right. We  
24      know the Clean Power Plan is moving forward and we  
25      know EPA did an analysis of what they thought would

1       happen to make -- they set the limits. You know,  
2       they set all their limits and so they did that with  
3       an analysis. The fundamentals of their analysis is  
4       what we used to model that world. To assume nothing  
5       for the Clean Power Plan would be denying that the  
6       Clean Power Plan is going forward, and so we all know  
7       it is, so we modeled it, and then we modeled these  
8       retirements in that world.

9           Q.       And in your modeling you retire -- you  
10       modeled retirements based on the draft of the plan,  
11       correct?

12          A.       Yes. That's all we had. That's the best  
13       information available.

14          Q.       And now we have a final plan that is  
15       different from the draft?

16          A.       I have no idea what the final plan looks  
17       like. I haven't seen the details.

18          Q.       So your modeling is based on a world that  
19       won't exist in 2019, correct?

20          A.       It's a lot closer than the one you are  
21       imagining because Clean Power Plan is going forward.

22          Q.       And you don't know what trans -- you don't  
23       know what plants will retire under the final Clean  
24       Power Plan.

25          A.       I do not.

1 Q. So it's still, your modeling does not  
2 reflect the world that will exist in 2019, correct?

3 A. It's a reasonable assumption of what the  
4 world will look like at that timeframe, yes.

5 Q. Okay. And can you turn over to the back  
6 of Exhibit 24. It says "Amended response  
7 September 15, 2015." Do you see that?

8 A. Yes.

9 Q. It says "The original answer misunderstood  
10 the questions and this amended answer should replace  
11 the original answer." Do you see that?

12 A. Yes.

13 Q. Okay. In what way did the original answer  
14 misunderstand the questions?

15 A. Yes. So I think that really ought to say  
16 this will supplement not replace.

17 Q. Okay. So this amended answer should --

18 A. Should supplement.

19 Q. Supplement. Okay.

20 A. Yes.

21 Q. Okay. With that change what -- in what  
22 ways did the original answer misunderstand the  
23 questions?

24 A. I think there wasn't clarification in  
25 the -- we were simply trying to clarify some of the

1 written answers to help better understand what was  
2 there. That's all.

3 Q. Okay. So all the written answers in the  
4 original response are still accurate; is that right?

5 A. Subject to being supplemented with this,  
6 yes.

7 Q. Okay. So you are not withdrawing any of  
8 those original answers.

9 A. No. We are just clarifying them.

10 Q. Okay. All right. And you have no idea  
11 whether if the Commission did not approve the  
12 affiliate PPA and its inclusion in the PPA rider  
13 whether AEP Generation would retire any of the PPA  
14 units, right?

15 A. Yeah, that's correct.

16 Q. Okay. And you have not seen any analysis  
17 whether any of the PPA units would retire if the  
18 Commission does not approve the application here; is  
19 that right?

20 A. I have not.

21 Q. Okay. And no one has told you that any of  
22 the PPA units would retire if the Commission does not  
23 approve the application here; is that right?

24 A. No, they have not.

25 Q. Okay. And if any of the PPA units were

1 going to retire, you would do a systems stability  
2 analysis to evaluate the transmission impact; is that  
3 right?

4 A. Oh, that would be one aspect. We would do  
5 what we just did here which is the full reliability  
6 analysis; stability would be an additional analysis  
7 we would look at.

8 Q. Okay. And you have not done such a system  
9 stability analysis, correct?

10 A. I have not.

11 Q. Okay. And before you could retire any PPA  
12 units, AEP Generation would have to notify PJM; is  
13 that right?

14 A. Yes, they do.

15 Q. Okay. And to your knowledge AEP  
16 Generation has not notified PJM of its intention to  
17 retire any PPA units; is that right?

18 A. That's correct.

19 Q. And if the PPA units did not retire, the  
20 reliability impacts you identify generally would not  
21 occur; is that right?

22 A. That's correct.

23 Q. Okay. And so in the RTEP model, we've  
24 already discussed the changes you made with regards  
25 to units that you assumed would be retired. So we

1 could turn briefly to units that PJM adds to the  
2 analysis that aren't in existence today.

3 A. Okay.

4 Q. So my understanding is that any unit  
5 that's in the PJM interconnection queue with an  
6 in-service date by June, 2019, and signed  
7 interconnection agreement would be included in the  
8 RTEP model; is that right?

9 A. That's my understanding, yes.

10 Q. Okay. And since your analysis was  
11 completed in somewhere around June to August, 2014,  
12 have you evaluated whether since then any new  
13 generating units meet that definition?

14 A. I have become aware that other units now  
15 meet that generation -- that definition.

16 Q. Okay. And you have not -- you have not  
17 run a new analysis including any of those units,  
18 correct?

19 A. That's correct.

20 Q. Okay. And so am I correct that -- well,  
21 you're aware of the proposed Carroll County natural  
22 gas plant in Ohio; is that right?

23 A. I am aware, yes.

24 Q. Okay. And that plant was not included in  
25 the 2019 RTEP model; is that correct?

1 A. That's correct.

2 Q. Okay. Do you know if that plant now has  
3 an interconnection agreement?

4 A. I don't know the final status but I  
5 believe it's moved forward. It may have.

6 Q. And take a step back. Units that have a  
7 facilities study agreement also would be included in  
8 the RTEP model, right?

9 A. That's correct.

10 Q. And do you know whether Carroll County has  
11 a facilities study agreement?

12 A. I believe it has moved forward at least to  
13 that point, I think to the facilities study. It may  
14 have moved to SA, I just don't recall off the top of  
15 my head, but it has moved forward.

16 Q. Okay. And so if that unit has a  
17 facilities study agreement or an interconnection  
18 agreement it would -- it would be included in RTEP  
19 modeling today, correct?

20 A. Yes.

21 Q. Okay. And are you aware of the Oregon  
22 Clean Energy Center?

23 A. I am.

24 Q. Okay. And that's a proposed natural gas  
25 plant in Ohio; is that right?

1 A. That's my understanding.

2 Q. Okay. And that was not included in your  
3 modeling; is that right?

4 A. That's correct.

5 Q. Okay.

6 A. At the time it was not -- it was not, you  
7 know, far enough along.

8 Q. Okay. And as of today, do you know  
9 whether that unit has a signed interconnection  
10 agreement?

11 A. I'm not sure. I know it's moved far  
12 enough along so it's somewhere at the ISA area.

13 Q. So as of today that unit would now be  
14 included in an RTEP analysis, correct?

15 A. That's correct.

16 Q. I'm sorry, I may have asked this, but just  
17 to make sure. It was not included in your analysis,  
18 right?

19 A. That's correct.

20 Q. Okay. And the Lordstown plant, are you  
21 aware of that?

22 A. I am.

23 Q. Okay. That's another proposed natural gas  
24 plant in Ohio?

25 A. Yes.



1 Q. Okay. And that was not included in your  
2 RTEP analysis; is that right?

3 A. That's correct.

4 Q. And do you know whether that plant has now  
5 moved far enough along that it would be included  
6 today?

7 A. I don't believe it has.

8 Q. Okay. And how about the Middletown  
9 natural gas plant, that was -- are you aware of that?

10 A. I am.

11 Q. Okay. And that's a proposed natural gas  
12 plant in Ohio?

13 A. Yes, it is.

14 Q. Okay. And that was not included in your  
15 RTEP analysis?

16 A. It was not.

17 Q. Okay. And so the PJM's RTEP, I believe we  
18 discussed briefly earlier, on the transmission side  
19 would include any upgrades that have been approved by  
20 the board and are expected to go into effect -- or to  
21 be completed by June of 2019; is that right?

22 A. That's correct.

23 Q. Okay. And if you turn to Exhibit Sierra  
24 Club 24, the amended response subpart d., the last  
25 sentence says "In addition, any reliability upgrades

1 or supplemental upgrades that PJM had approved up  
2 till December 2013 were also included in the model."

3 Do you see that?

4 A. I do.

5 Q. Okay. And so is it your understanding  
6 that the 2019 PJM RTEP model did not include any  
7 reliability upgrades or supplemental upgrades  
8 approved after December of 2013?

9 A. Yeah. I think that's a reasonable  
10 assumption. The RTEP cases are put together, you  
11 know, so the 2014 series that we used were put  
12 together during that timeframe. So at some point in  
13 time they have to finalize the case. So it would  
14 have been stuff that would have been approved through  
15 that timeframe would have been put in that case.

16 Q. Okay.

17 A. Eventually they finalize it and move  
18 forward.

19 Q. And the transmission upgrades that are --  
20 reliability upgrades or supplemental upgrades that  
21 are approved by the PJM board, that's  
22 publicly-available information, correct?

23 A. Yes.

24 Q. Okay. And you did not, in filing your  
25 May, 2015, testimony, you did not evaluate whether

1 there were any additional reliability upgrades or  
2 supplemental upgrades that had been approved since  
3 December, 2013; is that right?

4 A. We did not. We did not evaluate but I was  
5 certainly aware of.

6 Q. You were certainly what?

7 A. I was aware there were upgrades approved  
8 but I did not evaluate them because they weren't of  
9 significant size to have an impact on our result.

10 Q. Okay. So you did not include any  
11 transmission upgrades approved by the PJM after  
12 December 23rd in your modeling, correct?

13 A. Yeah. We wouldn't have become aware of  
14 anything in 2014 until after we had done our study.

15 Q. And before filing your May, 2015,  
16 testimony, you didn't determine whether maybe you  
17 should update your study to reflect any new upgrades?

18 A. No. We were very much aware of what was  
19 approved in 2014 and realized that those upgrades  
20 were of not significant size. They were mostly local  
21 upgrades dealing with low voltage issues that were  
22 not meaningfully impacting our results, so.

23 MR. FISK: Okay. If I could have just one  
24 minute.

25 May I approach, your Honor?

1 EXAMINER SEE: Yes.

2 MR. FISK: If we could have this marked as  
3 Sierra Club 25.

4 EXAMINER SEE: So marked.

5 (EXHIBIT MARKED FOR IDENTIFICATION.)

6 Q. Okay. Mr. Bradish, you have been handed a  
7 document marked as Sierra Club Exhibit 25, and it's  
8 entitled "Transmission Expansion Advisory Committee  
9 Recommendations to the PJM Board." Do you see that?

10 A. Yes, I do.

11 Q. Okay. Do you know what the Transmission  
12 Expansion Advisory Committee is?

13 A. Yes, I do.

14 Q. And what is that?

15 A. The -- oh, definition of it. It's where  
16 PJM goes over their -- their planing process, the  
17 results, so they discuss their results basically with  
18 all the stakeholders in terms of the analysis that  
19 they have run and solutions that they have found, you  
20 know, and what they are recommending to take to the  
21 board.

22 Q. Okay. And so they identify transmission  
23 expansions and recommend them to the board and then  
24 the board decides whether to approve them; is that  
25 right?

1 A. That's correct.

2 Q. And so with the Transmission Expansion  
3 Advisory Committee recommendations to the PJM board,  
4 the PJM board would be the source for determining  
5 what transmission upgrades are pending before the  
6 board?

7 A. Yes.

8 Q. Okay. And do you -- do you reference  
9 their recommendations?

10 A. I'm familiar with their recommendations.

11 Q. Okay. Have you ever seen this specific  
12 document?

13 A. I don't know if I have seen this one but I  
14 have seen pieces of it at least.

15 Q. Okay, okay. And if you look at the  
16 Executive Summary on the, well, flipping over to the  
17 first page.

18 A. Okay.

19 Q. There is a discussion in the very first  
20 paragraph that says "The PJM Board of Managers  
21 previously approved changes to the Regional  
22 Transmission Expansion Plan on November 5, 2014.  
23 Those changes totaled \$510 million...." Do you see  
24 that?

25 A. Yes.

1           Q.       Okay. And so November 5, 2014, that was  
2 after the RTEP modeling that you used in your  
3 analysis, correct?

4           A.       That's correct.

5           Q.       Okay. But certainly before the May 2015  
6 testimony you submitted in this proceeding, correct?

7           A.       That's correct.

8           Q.       And so none of the \$510 million  
9 transmission changes identified in this paragraph  
10 were included in your modeling, correct?

11          A.       Not this way, no.

12          Q.       Not this way?

13          A.       No. So when we do our modeling, right, we  
14 have a -- we have the base case, the 2019 RTEP,  
15 that's your base case, and you model the changes.  
16 When you do the analysis, you do the reliability  
17 analysis on both and compare the results.

18                 So if there is a problem that shows up in  
19 the base case, that doesn't show up in the change  
20 case, we didn't address it because it would have been  
21 something that would have gotten addressed in this  
22 process so we didn't address it. So we are only  
23 looking at the changes driven by what we did to the  
24 case. So we didn't look at these directly and put  
25 them into the case, but our analysis would have seen

1 the effects of those, and if they are in there, we  
2 would not have addressed those issues. So we saw  
3 their effects in our modeling.

4 Q. But you did not model -- did you not  
5 include in your model the solutions to those effects,  
6 correct?

7 A. Yeah. We didn't try to solve those  
8 problems in our model, correct.

9 Q. And I don't know if inclusion of those  
10 transmission upgrades would have impacted any of the  
11 reliability violations that you found in your  
12 modeling, correct?

13 A. Yes. That's what -- no, that's not  
14 correct, yes, we would have and that's what I was  
15 just explaining. So because we ran our model, we ran  
16 the 2019 analysis ourselves, we would have seen all the  
17 same thing that PJM saw, so we would have known if  
18 these impacts would have impacted our results. And  
19 there was nothing significant in that analysis that  
20 would have suggested our results needed to change.  
21 They just wouldn't have a big enough impact.

22 Q. Okay. All right. And your -- your  
23 analysis in the -- set forth in Exhibit 23, you  
24 identify costs of your proposed upgrades on page 8,  
25 correct?

1           A.       That's correct.

2           Q.       Okay. And the allocation of those costs  
3 would ultimately be determined by PJM, right?

4           A.       That's correct.

5           Q.       Okay. And on page 9 of your testimony,  
6 you, starting at line 6, you state that  
7 "Approximately \$850 million of the upgrades are  
8 expected to be at voltages 345 kV and below...." Do  
9 you see that?

10          A.       One second, please. What page are you on  
11 again?

12          Q.       Page 9.

13          A.       And what line?

14          Q.       Starting on line 6.

15          A.       Yes.

16          Q.       Okay. And you say the cost of those will  
17 be borne directly by customers in the AEP zone; is  
18 that right?

19          A.       Yeah.

20          Q.       Okay. And then your next sentence, and  
21 this is the sentence I believe you made a revision to  
22 this morning, "Approximately 50 percent of the  
23 remaining \$750 million may be shared with other PJM  
24 members if 765 kV options are approved as baseline  
25 upgrades." Do you see that?



1           A.       Yes.

2           Q.       Okay. And so when you say "Approximately  
3       50 percent of the remaining \$750 million," are those  
4       referring to the same --

5           A.       Yes.

6           Q.       -- same amount?

7           A.       Yes.

8           Q.       Okay. And in terms of how costs are  
9       allocated by PJM, am I correct so that the upgrades  
10      that are 345 kV double circuit and above would be  
11      allocated 50 percent throughout the PJM footprint and  
12      50 percent to the zone that benefits from the  
13      upgrade?

14          A.       That's my understanding, yes.

15          Q.       Okay. And the 50 percent that goes PJM  
16      wide is allocated based on a load ratio basis; is  
17      that right?

18          A.       Yes, I believe that's correct.

19          Q.       Okay. And the other 50 percent, it goes  
20      to the zone or zones that benefit, that's allocated  
21      to what's known as the DFAX method?

22          A.       Yes.

23          Q.       Okay. And that's DFAX?

24          A.       That's correct.

25          Q.       And AEP would not be able to replicate the

1 DFAX method, correct?

2 A. We can't get it precisely. We could  
3 probably approximate it, if we had to, but we can't  
4 get it precise.

5 Q. So a precise DFAX analysis would have to  
6 be done by PJM, correct?

7 A. Yes.

8 Q. And transmission upgrades can benefit more  
9 than just a single zone, correct?

10 A. Yes.

11 Q. Okay. So some of the costs of a  
12 transmission upgrade, even if it's located in one  
13 zone, might be allocated under DFAX to another zone  
14 because there is some benefit to that other zone?

15 A. Yes, that is possible.

16 Q. Okay. And when we talk about zones, the  
17 AEP zone covers portions of seven states; is that  
18 right?

19 A. That's correct.

20 Q. Okay. And so if a cost is allocated to  
21 the PJM zone, that cost is, in turn, spread  
22 throughout the zone?

23 THE WITNESS: Can you repeat that  
24 question, please? I am not quite sure I understand  
25 that.

1 (Record read.)

2 A. So I need you to help me. Define what you  
3 mean costs are allocated to a PJM zone, meaning?

4 Q. So the DFAX method, PJM will run it and  
5 say, okay, here are the zones that benefit from this  
6 transmission upgrade, correct?

7 A. Yes.

8 Q. And then those zones will be -- the  
9 customers in those zones will be charged for whatever  
10 portion of the transmission upgrade PJM determines  
11 they benefited from, correct?

12 A. Yes.

13 Q. So that -- if that cost is allocated -- if  
14 there is a cost allocated through that method to the  
15 PJM zone, that cost would be paid by customers  
16 throughout -- I'm sorry, to the AEP zone, that cost  
17 would be paid for by customers throughout the AEP  
18 zone, correct?

19 A. That's correct.

20 Q. Okay. So those costs wouldn't fall solely  
21 on AEP Ohio customers, right?

22 A. That's correct.

23 Q. And, in fact, of those costs roughly 15 to  
24 20 percent go to AEP Ohio customers versus other AEP  
25 customers?

1           A.       No. So let me clear that up. I know we  
2       had that conversation in my deposition. And my  
3       numbers were not accurate in my deposition because I  
4       was trying to recall what they were. So the AEP load  
5       within the AEP zone is about 85 percent of the load  
6       of the zone. So all costs that come into the zone,  
7       AEP gets roughly, these are rough, 85 percent of that  
8       assigned to them. So once that comes into the AEP  
9       zone, then AEP Ohio picks up a share of that which is  
10      allocated to AEP within the AEP zone. And my  
11      understanding is that share is closer to 40 percent.

12           Q.       So that is not what you told me in your  
13      deposition, correct?

14           A.       Well, you pressed me in my deposition, I  
15      told you I didn't know, and you pressed for an  
16      answer, and I said, well, I'll give you a guess, and  
17      I guessed 15 to 20, and it is more like 40.

18           Q.       And how did you come to determine it was  
19      40 percent?

20           A.       I asked that question internally to our  
21      folks who know those numbers.

22           Q.       And who did you ask?

23           A.       Our folks in our regulatory group who  
24      manage our transmission agreement.

25           Q.       And who in the regulatory group?

1           A.       It was Roush, I believe his name is, David  
2       Roush.

3           Q.       Okay. And did he show you any  
4       documentation of that allocation?

5           A.       No, did he not. I trust what he said to  
6       me.

7           Q.       Okay. And did you do anything to verify  
8       what he told you?

9           A.       No. Again, I trust what he said to me.

10          Q.       Okay. So your testimony now, it would be  
11       40 percent of the 85 percent.

12          A.       Yes. That's their approximation.

13          Q.       Okay. Okay. And then anything below, any  
14       transmission upgrade below 345 kV, the cost is  
15       allocated 100 percent based on the DFAX method; is  
16       that right?

17          A.       That's my understanding, yes.

18          Q.       Okay. And, again, that method is looking  
19       at who benefits from the transmission upgrades?

20          A.       Yeah. The DFAX method, same thing.

21          Q.       Okay. Okay. And so looking at the  
22       upgrades identified on page 8 of Exhibit 23.

23          A.       Yes, sir.

24          Q.       My understanding -- am I correct is that  
25       projects A and B would -- the costs would be

1 allocated 50/50, 50 percent being spent throughout  
2 PJM and 50 percent being the DFAX method?

3 A. So for A and B not exactly. And I am  
4 trying to recall how this was done. I don't have the  
5 details but my understanding there are 138 kV pieces  
6 associated with A and B that would have been just  
7 assigned the local piece. So they would have been  
8 allocated to that local process.

9 And then there's pieces of these two that  
10 were assumed, again, this is an assumption until we  
11 get the final solutions and figure all the details  
12 out, it's an assumption that a piece of this would be  
13 allocated regional because the thought there would be  
14 double circuit 345 kV lines into the station to  
15 support them. So this would be associated with a  
16 double circuit 345 kV line.

17 I'm not sure, but this will have to be a  
18 consideration with PJM as to how they would interpret  
19 that, whether they interpret it the same way we did  
20 or not. Again, they get the final say in this.

21 So for this analysis, for this rough  
22 breakout, we made some assumptions about how we  
23 thought it would fall out, subject to an agreement  
24 with PJM that didn't fall this way.

25 Q. So there's no way to know exactly how

1 those costs would fall out without discussing with  
2 PJM; is that right?

3 A. Yeah, I think we are pretty close, but I  
4 don't think we've, you know, PJM has to weigh in.

5 Q. Okay. And project C and D, those would be  
6 allocated 100 percent based on the DFAX method; is  
7 that right?

8 A. Yeah. I think this would go just  
9 100 percent DFAX.

10 Q. Okay. And project F and G would be  
11 50 percent shared by all PJM and 50 percent DFAX?

12 A. Yeah, again, the SPE would be one that  
13 would depend on ultimately where it gets located and  
14 what we actually bring in to the station. You know,  
15 it's at 345. It will be subject to interpretation  
16 between us and PJM as to where those costs go, but I  
17 think that's what we used roughly for this.

18 Q. Okay. And then project -- project F and G  
19 would also be 50/50?

20 A. Yeah, I think that's true for F. G has a  
21 345 kV component with a transformer, some 345 kV  
22 work. Again, that piece is subject to interpretation  
23 also again.

24 Q. And then project H would be 50/50  
25 because --

1           A.       Subject to the interpretation of the  
2 transformer where that cost falls out.

3           Q.       Okay.

4           A.       That transformer could fall out the other  
5 way; it could fall out to local.

6           Q.       Right. And then the same with project J.

7           A.       Yes.

8           Q.       And for the -- for the projects where some  
9 or all of the cost is allocated based on DFAX  
10 portion, you have not analyzed exactly which PJM  
11 zones would benefit from those upgrades, correct?

12          A.       That's correct.

13          Q.       Okay. And so it's possible for any of the  
14 upgrades, people in other PJM zones could receive  
15 some of the benefits?

16          A.       Yes.

17          Q.       Okay. And then some of the costs under  
18 the DFAX method would go to those zones instead of  
19 the AEP zone?

20          A.       That's correct.

21                   MR. FISK: May I approach?

22                   EXAMINER SEE: Yes.

23                   MR. FISK: Okay. I believe this should be  
24 marked Sierra Club Exhibit 26.

25                   EXAMINER SEE: Yes.



1 (EXHIBIT MARKED FOR IDENTIFICATION.)

2 Q. All right. Mr. Bradish, you have been  
3 handed an exhibit marked Sierra Club Exhibit 26 which  
4 is the company's response to ELPC Interrogatory 2-29;  
5 is that correct?

6 A. Yes.

7 Q. Okay. And you are identified as the  
8 witness who prepared this response; is that correct?

9 A. Yes, it was prepared at my direction.

10 Q. Okay. And in your response you identify  
11 that "PJM has recently recommended approval of a  
12 plus/minus 450MVAR Static Var Compensator at AEP's  
13 Jackson's Ferry 765 kV station in Virginia"; is that  
14 right?

15 A. That's correct.

16 Q. Okay. And then you state in the second  
17 paragraph "This SCV could impact the list of issues  
18 identified and mitigations developed for the AEP  
19 system in West Virginia and Virginia"; is that right?

20 A. Yes.

21 Q. And then -- and so your understanding is  
22 if this project were to be approved by the board, it  
23 would then -- it would then be included in the RTEP;  
24 is that right?

25 A. That's correct.

1           Q.       Okay. And if you look at the map that is  
2 on page 7 of Exhibit 23. And this map has circles  
3 with letters in them; is that right?

4           A.       Yes, it does.

5           Q.       Okay. And those circles with letters  
6 correlate with the upgrades identified on page 8; is  
7 that right?

8           A.       Yes, they do.

9           Q.       And this -- this map shows generally where  
10 those upgrades would be made; is that right?

11          A.       That's correct.

12          Q.       Okay. And the MVAR Static Var Compensator  
13 identified in Sierra Club Exhibit 26, that would be  
14 down near the C and F that are towards the bottom of  
15 the map?

16          A.       Yes, it would.

17          Q.       Okay. And so am I correct that if that  
18 project were to move forward, it could reduce the  
19 transmission impacts and upgrades identified in C and  
20 F?

21          A.       Yes, it will. It will have an impact  
22 there. That's what we stated in our response.

23          Q.       Okay. But you haven't analyzed what --  
24 how much of an impact, correct?

25          A.       No, we have not.

1 Q. And do you know, has that project been  
2 approved yet?

3 A. It has not. It's moving forward with the  
4 process but it would be my expectation at this point  
5 it will be approved.

6 Q. It will be approved.

7 A. That's my expectation until somebody  
8 raises a really big objection to it, but it should be  
9 approved.

10 Q. Okay, okay. And if you could turn to  
11 page 4 of your testimony. You have a statement at  
12 the very top, and I guess it actually starts over at  
13 the bottom of page 3, regarding transmission grid  
14 reliability during adverse weather conditions such as  
15 the polar vortex. Do you see that?

16 A. Yes.

17 Q. Okay. And you don't have any knowledge  
18 about the performance of the PPA units during the  
19 polar vortex, correct?

20 A. No, I don't.

21 Q. Okay. Because you are not offering any  
22 opinion regarding their performance?

23 A. No, I am not.

24 Q. And are you aware that there was another  
25 cold weather snap in January, 2015?

1           A.       Yes, I think we talked about it in my  
2 testimony on page 4.

3           Q.       Okay.  Yep.  And you don't have any  
4 knowledge about the PPA units' performance during  
5 that early 2015 cold weather snap?

6           A.       That's correct.

7           Q.       So you are not offering any opinion about  
8 what the PPA units might have done with regards to  
9 reliability during that cold weather snap?

10          A.       No, I am not.

11          Q.       Okay.  And have you reevaluated the  
12 performance of coal-fired generating units in general  
13 during the polar vortex?

14          A.       No, I have not.

15          Q.       All right.  And on page -- still on  
16 page 4, lines 20 to 23, you discuss that the  
17 transmission upgrades would mitigate identified NERC  
18 reliability standard violations, but they would not  
19 necessarily cover all potential scenarios where the  
20 plants may be required to maintain system  
21 reliability.  Do you see that?

22          A.       Yes.

23          Q.       Okay.  And part of your concern there was  
24 just that you had not run a systems stability  
25 analysis yet, correct?

1           A.       Well, that's part of it.

2           Q.       And the other part of it is the fact -- is  
3 the question of whether it would be enough  
4 dispatchable generation?

5           A.       Yeah. So the concern there, right, is  
6 having generation that's flexible and can move. You  
7 know, we do planning but we look at one contingency  
8 or possibly two contingencies. In the day-to-day  
9 operation we are operating in an environment where we  
10 may have 50 or 60 contingencies. Real life is not  
11 N-1. The system is not just one line out. Real life  
12 is the system tends to have even possibly hundreds of  
13 lines out.

14                   And so in that environment, you have to  
15 have flexibility in order to deal with issues that  
16 arise on the grid. So yes, what I am looking for  
17 here are plants that are flexible that can move and  
18 adjust.

19           Q.       Okay. And so "flexible" would basically  
20 mean you are able to move them up and down on demand?

21           A.       Yes.

22           Q.       Okay. And the natural gas combined-cycle  
23 plant can move up and down, correct?

24           A.       Yes, it could.

25           Q.       And so a natural gas combined-cycle plant

1 would provide redispatch just as well as a coal unit,  
2 right?

3 A. Yes, it will.

4 Q. And a natural gas combustion turbine can  
5 also move up and down?

6 A. Yes, it can.

7 Q. Okay. And it would also provide  
8 redispatch just as well as a coal unit?

9 A. Yeah, I believe it can.

10 Q. Okay. And you have not evaluated whether  
11 any of the PPA units could be converted to  
12 synchronous condensers, right?

13 A. No, I have not.

14 Q. And synchronous condensers would provide  
15 reactive power support?

16 A. Yes, they would.

17 Q. Okay. So to the extent that you are  
18 concerned about the reactive power support impacts  
19 from the retirement of a PPA unit, convergence to a  
20 synchronous condenser could alleviate that concern.

21 A. I don't know if it would alleviate, but it  
22 would certainly help. One of the proposals --  
23 solutions we had in here was the SVC. The  
24 synchronous condenser, it could help some of the  
25 issues we had. It will certainly not address them

1 all, but it could be part of the solution.

2 Q. Okay.

3 A. Okay. If there is a cost associated with  
4 that, I didn't evaluate the cost to SV -- to a  
5 synchronous condenser versus the cost of an SVC.

6 Q. Okay. And you are aware that  
7 FirstEnergy's converting its Eastlake plant to  
8 synchronous condensers?

9 A. I am.

10 Q. You have a discussion on page 5 of your  
11 testimony, from lines to 5 to 16 you have a  
12 discussion about "Reliability Must Run" contracts.  
13 Do you see that?

14 A. That's correct.

15 Q. Okay. And just generally I believe we  
16 discussed earlier that a -- if generating unit owner  
17 wants to retire a unit, it will provide notice to  
18 PJM, correct?

19 A. Yes.

20 Q. And then PJM will analyze whether there  
21 are transmission reliability impacts from that  
22 retirement?

23 A. Yes.

24 Q. Okay. And if there are transmission  
25 reliability impacts, PJM will then identify upgrades

1       that would be needed?

2           A.       Yes.

3           Q.       Okay.  And am I correct that an RMR  
4       contract would pay the generating unit owner to  
5       continue to operate the plant while those  
6       transmission upgrades are completed?

7           A.       I can't speak to what the contract will  
8       provide and will not provide.  There is a contract  
9       and the theory is it would somehow be enough  
10      compensation to keep the generator going, but I can't  
11      speak to that.

12          Q.       Okay.  But leaving aside the specifics of  
13      any contract, just generally the purpose of an RMR  
14      contract is to pay a generating unit owner to keep a  
15      unit operating while the reliability transmission  
16      fixes are made, correct?

17          A.       That's correct.

18          Q.       Okay.  And you state -- you note on  
19      lines 14 to 15 of page 5 that there is no obligation  
20      for a generator owner to accept an RMR designation;  
21      is that right?

22          A.       Yes.

23          Q.       Okay.  And you don't know of any situation  
24      in which a generating unit owner who has proposed to  
25      retire a unit and has offered an RMR contract has



1 refused to enter into such contract, correct?

2 A. I am not aware of any.

3 Q. And you also refer there on line 16 on  
4 page 5 to the reliability of the grid being at risk  
5 if transmission upgrades are not pursued in a timely  
6 manner; is that right?

7 A. Yes.

8 Q. Okay. And then down on line 20 to 21 you  
9 state "However, one can never be certain that the  
10 transmission improvements can be implemented"; is  
11 that right?

12 A. That's correct.

13 Q. Okay. And with regards to whether the  
14 transmission solution can be -- transmission  
15 improvements will be implemented, your concern there  
16 is with regards to the timing of how quickly a  
17 transmission improvement can be implemented, correct?

18 A. I am not sure where you are referring to.  
19 Which one are you talking about? You've referenced  
20 two pieces. Which one?

21 Q. Sure, sorry. Line 20 to 21 on page 5.

22 THE WITNESS: Okay. Could you read back  
23 the question, please.

24 (Record read.)

25 A. Yes, that's correct.

1           Q.       If timing is not an issue with regard to  
2 retirement of a unit, you're generally confident that  
3 the necessary transmission improvements to allow for  
4 a unit retirement can be completed?

5           A.       They can be completed. The issue -- I  
6 think the issue we are talking about here, right, is  
7 now you have got a situation where you have a  
8 generator that's a must-run requirement to maintain  
9 reliability.

10                   If something should happen to that  
11 generator, then you've got a problem on your grid.  
12 You have a reliability problem, and I think we all  
13 know generators from time to time have forced outages  
14 and things like that. So, yeah, you want to keep  
15 that window as short as possible and that exposure as  
16 short as possible to -- in fact, that generator is  
17 the only thing keeping that reliability problem from  
18 occurring.

19                   So my point is you -- it may take time and  
20 you may have a generator that's potentially on a  
21 must-run contract for a length of time to get  
22 something done. You have got an exposure there that  
23 you need to be concerned about.

24           Q.       But the possibility of forced outages is  
25 an exposure for any generating unit, correct, whether

1       it's on an RMR contract or not, right?

2           A.       Right, but if's not on an RMR contract, I  
3       am not as concerned, the RMR point being it's running  
4       to protect the grid from a reliability perspective,  
5       right, so there is a heightened risk associated with  
6       units that are on, to provide a specific requirement.  
7       If that unit goes away, now I don't have that unit  
8       anymore to provide that reliability relief, so,  
9       again, you want to minimize that window of exposure.

10          Q.       There are units that are necessary to  
11       preserving reliability that weren't on RMR contracts,  
12       correct?

13          A.       They don't have an RMR contract, then that  
14       unit by itself is not identified as something that's  
15       must run for a particular reliability problem.

16          Q.       But that's simply because it hasn't  
17       proposed to retire. It's not necessarily because  
18       it's not necessary for reliability.

19          A.       No, that's not true, no. If you do an  
20       analysis and find out that you have a problem on your  
21       grid and the only thing to protect it is a unit,  
22       those units can have reliability must-run agreements  
23       in place without having any notice that they are  
24       going to retire.

25          Q.       So it's your testimony that a unit that's

1 running that hasn't proposed to retire can get a  
2 reliability must-run contract.

3 A. If it finds itself in a situation where it  
4 is needed for a particular reliability, yes, those  
5 have happened in the past.

6 Q. Can you identify a plant that has not been  
7 proposed to retire or mothball that has an RMR  
8 contract?

9 A. Oh, we used to have a plant in the west in  
10 NRSB footprint that had that situation. I think it  
11 was the Southwestern plant had that requirement and  
12 possibly the Comanche plant had that requirement you  
13 get to a certain point and you need to turn them on  
14 to protect the grid, and so they are known as  
15 reliability must-run plants.

16 Q. That's not a plant in PJM, correct?

17 A. It is not.

18 Q. And --

19 A. My point being it's a possibility. So the  
20 goal here is to keep that window as short as possible  
21 so you don't have that incremental exposure to the  
22 generation having to be on to maintain reliability.

23 Q. Okay. So you can't identify any unit in  
24 PJM that has a reliability must-run contract that  
25 hasn't announced an intent to retire or mothball,

1 correct?

2 A. I am not aware of any right now.

3 MR. FISK: Can I have three minutes? I  
4 think I am close, but I just want to be sure I  
5 covered everything, or if you want to take the  
6 morning break or whatever.

7 EXAMINER SEE: I will tell you what, let's  
8 just take a 10- to 15-minute break.

9 MR. FISK: Okay.

10 (Recess taken.)

11 EXAMINER SEE: Let's go back on the  
12 record.

13 Mr. Fisk.

14 MR. FISK: Thank you, your Honor. I have  
15 a few more questions.

16 Q. (By Mr. Fish) Mr. Bradish, your load flow  
17 modeling in this proceeding used PJM's 2014 load  
18 forecast; is that correct?

19 A. That's correct.

20 Q. Okay. And PJM updates its load forecast  
21 every year; is that right?

22 A. Yes.

23 Q. And there was an update to that -- to  
24 PJM's load forecast issued I believe in January,  
25 2015; is that right?

1           A.       I'm not familiar with the date but it  
2 would have been early '15, yes.

3           Q.       Okay. And just generally if you have  
4 lower load on the system, transmission impacts, all  
5 else being equal, would be lower; that is right?

6           A.       Not necessarily. There is the possibility  
7 that, you know, lower reduced load could actually  
8 free up generation that could end up creating a  
9 constraint on the grid.

10                  MR. DARR: I'm sorry. I missed the end of  
11 that sentence. May I have the beginning of his  
12 answer read back, please.

13                  (Record read.)

14           Q.       But outside of that particular situation,  
15 as a general matter, doesn't lower load reduce  
16 impacts on the transmission grid?

17           A.       It can, yes.

18           Q.       Okay. And are you aware -- so would you  
19 agree -- strike my previous question.

20                  Would you agree that if you had -- if you  
21 were to use a lower peak demand forecast in your  
22 modeling, it's generally true that you would end up  
23 with lower transmission impacts?

24           A.       I'm not sure if lowering the peak demand  
25 for our analysis would have much of an impact on our

1 results. It's -- the nature of the problems are very  
2 severe so I'm not sure that a lower demand relative  
3 to forecast error would have created much of a  
4 difference in our results.

5 EXAMINER SEE: Mr. Bradish, I need you to  
6 speak up a little louder throughout your entire  
7 answer. It's a little difficult to hear you.

8 THE WITNESS: Yes, sorry.

9 MR. FISK: Your Honors, may I approach?

10 EXAMINER SEE: Yes.

11 Q. Mr. Bradish, you have been handed a copy  
12 of your deposition transcript; is that correct?

13 A. Yes.

14 Q. Okay. And do you recall being deposed  
15 recently in this proceeding?

16 A. Yes, I do.

17 Q. Okay. And if you could turn to page 132.

18 A. Okay.

19 Q. And looking down at line 18, there's a  
20 question, it says, "Okay. So leaving aside the light  
21 load case, if you were to use a different -- if you  
22 were to have lower peak demand forecast in your 2019  
23 RTEP scenario, you would end up with lower upgrade --  
24 transmission impacts?"

25 "Answer: I think that's generally true.

1616

1 I won't say it's a hundred percent true but I think  
2 it's generally true." Did I read that correctly?

3 A. Yes.

4 Q. Okay. And before you submitted your  
5 testimony in May of 2015, you did not evaluate  
6 whether PJM had come up with any lower load forecast  
7 than what was used in your modeling, correct?

8 A. That's correct.

9 MR. FISK: Okay. And may I approach  
10 again?

11 EXAMINER SEE: Yes.

12 MR. FISK: Thank you.

13 And if we could have this marked as Sierra  
14 Club Exhibit 27.

15 EXAMINER SEE: Yes.

16 MR. FISK: Thank you.

17 (EXHIBIT MARKED FOR IDENTIFICATION.)

18 Q. All right. Mr. Bradish, you have been  
19 handed a document marked Sierra Club Exhibit 27 which  
20 is Attachment 1 to the company's response to ELPC  
21 Interrogatory 3-002; is that correct?

22 A. Yes.

23 Q. Okay. And have you seen this document  
24 before?

25 A. Yes.



1617

1 Q. Okay. And it's a four-page document; is  
2 that right?

3 A. Yes.

4 Q. And did you create this document?

5 A. My staff.

6 Q. Okay. And this document lists the various  
7 111(d) units that we discussed earlier; is that  
8 correct?

9 A. That's correct.

10 Q. Okay. And so this is the list of units  
11 that you included in your load flow analysis as being  
12 retired; is that right?

13 A. That's correct.

14 Q. Okay. And if you look under the Ohio  
15 header which is on page -- starts at the bottom of  
16 page 2, and then goes over to page 3.

17 A. Yes.

18 Q. It includes at the top of page 3  
19 Conesville units 4, 5, and 6, correct?

20 A. Yes.

21 Q. And those are the same Conesville units  
22 that are part of the proposed PPA; is that correct?

23 A. That's correct.

24 Q. So am I correct that whatever EPA analysis  
25 or list you might have relied on with regards to this

1 list of PPA units -- 111(d) units, EPA included  
2 Conesville 4, 5, and 6 as retiring under the Clean  
3 Power Plan?

4 A. Yes. They identified them at risk of  
5 retiring, that's correct.

6 Q. Well, not just at risk of retiring but  
7 actually retiring, correct?

8 A. Yes, yes, in their analysis yes.

9 Q. Okay. And we've discussed, throughout the  
10 day, PJM, that's right? Is that correct?

11 A. What's that?

12 Q. We have discussed PJM at various points  
13 today?

14 A. Yeah.

15 Q. Okay. And PJM is the regional  
16 transmission organization that covers the AEP zone;  
17 is that right?

18 A. That's correct.

19 Q. Okay. And would you agree that PJM is  
20 responsible for ensuring reliability within its  
21 footprint?

22 A. Jointly with the transmission owners, yes.

23 Q. Okay. And do you think PJM is capable of  
24 ensuring such reliability?

25 A. Yes.

1 MR. FISK: Okay. May I approach?

2 EXAMINER SEE: Yes.

3 MR. FISK: Two different ones. Okay. And  
4 if I could have the Sierra Club -- response to Sierra  
5 Club Interrogatory 5-119 marked as Sierra Club  
6 Exhibit 28. And the response to Sierra Club RPD-2-71  
7 marked as Sierra Club Exhibit 29.

8 EXAMINER SEE: Okay.

9 (EXHIBITS MARKED FOR IDENTIFICATION.)

10 MR. FISK: Thank you, your Honors.

11 Q. Okay. Mr. Bradish, you have been handed  
12 two documents, the first one Sierra Club Exhibit 28  
13 is the company's response to Sierra Club  
14 Interrogatory 5-119. Do you see that?

15 A. Yes.

16 Q. Okay. And then the second document is  
17 Sierra Club Exhibit 29 which is the company's  
18 response to Sierra Club RPD-2-71.

19 A. Uh-huh.

20 Q. Is that correct?

21 A. Yes.

22 Q. Okay. And Sierra Club Exhibit 29 there is  
23 an attachment that runs for three pages; is that  
24 right?

25 A. Yes.

1           Q.       And looking at Sierra Club 28, the request  
2 seeks identification of the specific new generating  
3 units that were assumed to be added to the system in  
4 your transmission planning impact study; is that  
5 right?

6           A.       Yes.

7           Q.       Okay. And then in your responses you  
8 refer to the responses of Sierra Club RPD-2-71 for a  
9 list of the units that were added; is that right?

10          A.       Yes.

11          Q.       Okay. And then it says "For location and  
12 capacity, please consult PJM's generation queue"; is  
13 that right?

14          A.       Yes.

15          Q.       Okay. And am I correct you've only  
16 reviewed the generation queue once or twice?

17          A.       Yeah. That's correct.

18          Q.       Okay. And does Sierra Club Exhibit 29  
19 provide the list of the units that are referenced in  
20 your response to Sierra Club Exhibit 28?

21          A.       Yes. It looks like it is.

22          Q.       Okay. And so turning to the second page  
23 of Sierra Club Exhibit 29, the very top there is some  
24 headers that say one says "Bus," one says "Name," one  
25 says "Megawatts" and one says "State"?

1 A. Yes.

2 Q. And so these are the units that were added  
3 to the RTEP in scenario 5; is that right?

4 A. That's correct.

5 Q. Okay. And "Name," that is the -- is that  
6 the number in the PJM interconnection queue?

7 A. Yes, it is.

8 Q. Okay. So if I went to the PJM  
9 interconnection queue, I could find each of these  
10 units on the queue by looking up the numbers under  
11 "Name"?

12 A. I believe so.

13 Q. Okay. All right. And then on the little  
14 box on the top right portion of page 2 is the total  
15 number of megawatts added to the RTEP modeling by  
16 state; is that right?

17 A. Yes.

18 Q. Okay. And you added that generation to  
19 balance the model in terms of given the amount of  
20 retirements you assumed; is that right?

21 A. That's correct.

22 Q. And that's kind of standard practice of  
23 how PJM does load flow modeling; is that right?

24 A. Yes.

25 Q. Okay. And you did not personally analyze

1 the list of units that should be included -- should  
2 be added to the RTEP modeling, correct?

3 A. No. My staff did that.

4 MR. FISK: Okay. I believe I have nothing  
5 further.

6 EXAMINER SEE: Ms. Ghiloni.

7 - - -

8 CROSS-EXAMINATION

9 By Ms. Ghiloni:

10 Q. Good morning, Mr. Bradish.

11 A. Good morning.

12 Q. My name is Danielle Ghiloni. I represent  
13 the Ohio Manufacturers' Association Energy Group. I  
14 have just a few questions for you. And bear with me,  
15 I may reference some of the information that you've  
16 already indicated this morning.

17 So looking at Sierra Club Exhibit 23, if  
18 you could turn to page 10, please.

19 A. Which page was that?

20 Q. Page 10. So Mr. Fisk already spoke about  
21 this this morning a little bit and we went through  
22 each of these numbers, but I am looking at the  
23 Stewart and Zimmer plants at the top. And you  
24 indicated that the total local upgrades based on this  
25 is the 240 million, correct?

1 A. That's correct.

2 Q. Okay. Did you -- strike that.

3 You did not determine what the total of  
4 the upgrades would be if just the Stewart plant were  
5 retired, correct?

6 A. That's correct.

7 Q. You only looked at the upgrades when you  
8 combined the Stewart and the Zimmer plants.

9 A. It was --

10 Q. Correct?

11 A. It was based on an electrical assessment.  
12 They're electrically close so we just looked at them  
13 together.

14 Q. But the Zimmer plant could operate even if  
15 the Stewart plant retired, correct?

16 A. Yes.

17 Q. Yes?

18 A. Yes.

19 Q. And do you know what the impact would be  
20 if only the Stewart plant retired?

21 A. No, I do not.

22 Q. Do you know what the upgrades needed --  
23 what upgrades would be needed if only the Stewart  
24 plant retired?

25 A. No.

1           Q.       No, okay. And then you indicated earlier  
2           in your testimony that the impact of retirement of  
3           units is dependent on both magnitude and location,  
4           correct?

5           A.       That's correct.

6           Q.       Okay. And location is important because  
7           it determines how power flows across the system and,  
8           therefore, impacts reliability, correct?

9           A.       Yes, that's correct.

10          Q.       Okay. And Mr. Fisk mentioned earlier a  
11          generation facility that is proposed at Carroll  
12          County in Washington Township, Ohio, and you are  
13          aware of that generation facility, correct?

14          A.       I am.

15          Q.       Okay. And are you aware that this  
16          proposed -- the proposed location of that Carroll  
17          County facility is approximately 38 miles from the  
18          Cardinal unit which is located in Jefferson County?

19          A.       I wasn't aware of the distance but I knew  
20          it was in the same general area.

21          Q.       Okay. And are you aware that the proposed  
22          location is approximately 65 miles from the  
23          Conesville plant which is located in Coshocton  
24          County?

25          A.       Again, I am not familiar with the miles,



1 but generally where they are located.

2 Q. Okay. And you also spoke about the  
3 Lordstown energy center which is another proposed  
4 generation facility, correct?

5 A. Yes.

6 Q. Okay. And just for the record are you  
7 aware that the proposed location of the Lordstown  
8 energy center is proposed to be located approximately  
9 63 miles from the Cardinal plants?

10 A. Again, don't know the miles, but  
11 understand it's in the vicinity.

12 Q. And neither of the Lordstown energy center  
13 nor the Carroll County energy facility were included  
14 in the RTEP analysis that you completed, correct?

15 A. That's correct.

16 MS. GHILONI: Okay. One moment, your  
17 Honor. Thank you.

18 EXAMINER SEE: Okay.

19 MS. GHILONI: Thank you, Mr. Bradish.  
20 That's all, your Honor.

21 EXAMINER SEE: Mr. Moore.

22 MR. MOORE: Thank you, your Honor. Just a  
23 few questions.

24 - - -

25 CROSS-EXAMINATION

1 By Mr. Moore:

2 Q. Good morning, Mr. Bradish. My name is  
3 Kevin Moore. I represent the Ohio Consumers'  
4 Counsel.

5 I think you spoke earlier about when a  
6 generator announces its retirement, a system  
7 stability analysis is usually conducted; is that  
8 right?

9 A. Yes. Eventually it will get done. At  
10 some point it has to get done.

11 Q. And PJM would usually do a system  
12 stability analysis; is that correct?

13 A. They do them and so will we.

14 Q. But I think as you testified earlier, you  
15 did not do a system stability analysis for this  
16 proceeding?

17 A. We did not.

18 Q. And PJM did not perform a system stability  
19 analysis in this proceeding either; is that correct?

20 A. That's correct.

21 Q. Thank you.

22 You also conducted a -- excuse me. As  
23 part of the study, a contingency analysis was also  
24 performed; is that correct?

25 A. Yes. That's in essence what the study is.

1           Q.       And this contingency involved AEP bulk  
2 electric system; is that right?

3           A.       So the contingency involved the AEP system  
4 and surrounding systems.

5           Q.       Well, did you not take into consideration  
6 the subtransmission system contingency and the impact  
7 on neighboring systems; is that right?

8           A.       So we did not -- from a contingency  
9 analysis we did not look at the subtransmission  
10 impacts, that's correct, nor did we try to solve  
11 problems on the neighboring systems.

12          Q.       Okay. Thank you.

13                 And as part of your study, you also did a  
14 limited voltage analysis; is that correct?

15          A.       For this study we did a detailed analysis  
16 of voltage performance. Scenario 5, we had a full  
17 detailed analysis.

18          Q.       Okay. And a detailed voltage analysis is  
19 different than limited voltage analysis; is that  
20 correct?

21          A.       Yeah, it would be.

22          Q.       Would a detailed voltage analysis account  
23 for voltage violations that may necessitate the need  
24 to install incremental reactive upgrades?

25          A.       Yes.

1           Q.       You spoke about the RTEP process earlier.  
2       Referring to that process, after PJM identifies a  
3       potential problem, it will work with the transmission  
4       owners and other members to determine the best  
5       solution; is that correct?

6           A.       That's correct.

7           Q.       And once a solution has been found, it's  
8       reviewed and approved by the PJM board before being  
9       included in PJM's expansion plan?

10          A.       That's correct.

11          Q.       And then the transmission owner is  
12       obligated to build that transmission product -- or  
13       project that's been approved by the PJM board?

14          A.       That's correct.

15          Q.       And PJM has not included the PPA units in  
16       the RTEP process to date, correct?

17          A.       They have not.

18          Q.       And PJM has not studied whether closure of  
19       the PPA can lead to reliability issues?

20          A.       Well, yeah, they have. So PJM has done  
21       that analysis. It's not part of the RTEP process,  
22       but at the request of the Organization of PJM States,  
23       OPSI, they were asked to evaluate what the potential  
24       impacts would be on Clean Power Plan, so they did  
25       both an economic analysis where it indicated -- PJM's

1 analysis indicated, you know, additional retirements  
2 beyond what EPA had said would happen. So PJM is  
3 projecting in their analysis many more retirements  
4 would happen under the EPA's analysis. And then they  
5 also did a reliable analysis and showed very  
6 significant problems on the grid as a result of that.

7 Q. Are you referring to the Clean Power Plan  
8 or PPA units?

9 A. Clean Power Plan. I thought you said EPA.  
10 Maybe I misunderstood.

11 Q. No. I said -- I said the PPA units. So  
12 PJM has not studied if closure of the PPA units could  
13 lead to reliability issues; is that correct?

14 A. Sorry, that's correct.

15 Q. And you have not asked PJM to do such a  
16 study, correct?

17 A. That's correct.

18 Q. Mr. Bradish, are you familiar with PJM's  
19 capacity market construct?

20 A. I am familiar with it, yes.

21 Q. So you would agree that PJM's capacity  
22 market is intended to ensure there is sufficient  
23 capacity to serve all customers in PJM?

24 A. I believe that's their stated goal, yes.

25 Q. So capacity is intended to, among other

1 things, increase system reliability? Would you agree  
2 with that?

3 A. Yes, increased capacity would increase  
4 reliability.

5 Q. And increasing capacity results, would you  
6 expect, to increase in reliability?

7 A. It goes back to talking about, you know,  
8 amount and location, so location is important.

9 Q. But, generally speaking, the more  
10 capacity --

11 A. If it's located in the right location,  
12 yes, I'll agree with you that's the case. You could  
13 add capacity in the wrong locations and create  
14 problems.

15 Q. Are you familiar with the results of the  
16 most recent BRA in May, 2015?

17 A. I haven't looked at those results in any  
18 kind of detail, no.

19 Q. Are you familiar, Mr. Bradish, with the  
20 PJM capacity performance product?

21 A. I'm aware of its existence. But I'm not  
22 familiar with how it works.

23 Q. Are you aware that its meant to ensure  
24 power plants that PJM relies upon for winter  
25 reliability, like natural gas plants, will have firm

1 fuel supplies?

2 A. Again, I am not involved in discussions  
3 around that particular aspect of PJM's markets so I  
4 am just not familiar with what it does.

5 Q. But you're aware the capacity performance  
6 product is in existence?

7 A. I am aware that it exists, yes.

8 Q. Was that included at all in your  
9 transmission impact study?

10 A. No. There would be no way to include that  
11 in my transmission impact study.

12 Q. As a result of your transmission impact  
13 study, you identified planning costs, correct?

14 A. Yes.

15 Q. And those costs were based on per-unit  
16 costs based on AEP's historical experience building  
17 similar transmission projects, correct?

18 A. That's correct.

19 Q. So you didn't use numbers from PJM,  
20 correct?

21 A. That's correct.

22 Q. You used numbers from AEP.

23 A. Yeah, I am not aware what numbers PJM  
24 would have that I would use.

25 Q. Would you agree these are just rough

1 planning estimates?

2 A. Yes, "conceptual planning estimates" is  
3 what I would label them.

4 Q. Referring to the DFAX methodology you  
5 spoke about earlier. It's true that after PJM runs  
6 its DFAX methodology it also runs a market efficiency  
7 analysis?

8 A. Yes, market efficiency or production  
9 costs, either label.

10 Q. And this analysis will help to determine  
11 who is actually receiving the benefits from the  
12 project, correct?

13 A. Yes.

14 Q. And you didn't do a market efficiency  
15 analysis for this proceeding, correct?

16 A. Not for this, no.

17 MR. MOORE: Nothing further, your Honor.

18 Thank you, Mr. Bradish.

19 EXAMINER SEE: Mr. Olikier.

20 MR. OLIER: Sure. Just very briefly.

21 - - -

22 CROSS-EXAMINATION

23 By Mr. Olikier:

24 Q. Mr. Bradish, my name is Joe Olikier with  
25 IGS Energy, just a few questions for you today.



1           Am I correct that instead of retiring one  
2       of the PPA units, if you were to instead replace it  
3       with a natural gas combined-cycle plant, that would  
4       address the reliability impacts from retirement  
5       you've identified, correct, assuming the plant is the  
6       same size?

7           A.       And located at the same location.

8           Q.       Yes.

9           A.       Yes.

10          Q.       Okay. And is it also true that -- first,  
11       are you familiar with AEP's representation to the  
12       investors, and by "AEP" I mean the parent company.

13          A.       Just generally familiar.

14          Q.       Would you agree that this year AEP, the  
15       parent, has represented to investors that it plans to  
16       invest approximately \$4.8 billion in regulating  
17       transmission over the next three years?

18          A.       I can't speak to the numbers, but.

19          Q.       Several billion dollars?

20          A.       Several, several billion would be fair.

21          Q.       And am I correct that if this application  
22       is, in fact, approved, AEP is not making any  
23       representations about the investment that may occur  
24       in Ohio? In the transmission facilities.

25          A.       I am not sure I understand your question.

1 Q. So of the \$4.8 billion that I referenced  
2 would you agree a portion of that is in Ohio?

3 A. Yes.

4 Q. And there's no representations being made  
5 that AEP will not invest in Ohio anyway, correct, in  
6 their transmission facilities?

7 A. Correct.

8 MR. OLIKER: No more questions, your  
9 Honor.

10 Thank you, Mr. Bradish.

11 EXAMINER SEE: Mr. Pritchard.

12 MR. PRITCHARD: No questions, your Honor.  
13 Thank you.

14 EXAMINER SEE: Mr. Yurick.

15 MR. YURICK: No questions, your Honor.  
16 Thank you.

17 MS. COHN: Ms. Cohn.

18 EXAMINER SEE: Thank you.

19 MS. COHN: No questions, your Honor.

20 EXAMINER SEE: Mr. Dougherty.

21 MR. DOUGHERTY: No questions, your Honor.

22 EXAMINER SEE: Ms. Fleisher.

23 MS. FLEISHER: I actually have some.

24 - - -

25 CROSS-EXAMINATION

1 By Ms. Fleisher:

2 Q. Mr. Bradish, my name is Madeline Fleisher.  
3 I represent the Environmental Law & Policy Center.

4 So I think we've established in your  
5 testimony today that for purposes of your analysis  
6 you relied on the 2014 PJM load forecast, correct?

7 A. That's correct.

8 Q. And in the course of your regular duties,  
9 you use the PJM load forecasts at least relatively  
10 often to project needed transmission upgrades; is  
11 that correct?

12 A. We use -- yes, we use the PJM load  
13 forecasts that's in PJM's models. So, yeah, we use  
14 it on a regular basis.

15 Q. And do you have any familiarity with PJM's  
16 load forecasting methodology?

17 A. I do not.

18 Q. So you don't know how that load forecast  
19 incorporates energy efficiency projections, correct?

20 A. I do not know how they do that.

21 Q. Okay. And you don't know how that load  
22 forecast incorporates projections of behind-the-meter  
23 generation, by which I mean things like rooftop solar  
24 or combined heat and power, correct?

25 A. That's correct.

1 Q. And are you aware that Ohio has statutory  
2 energy efficiency requirements?

3 A. Generally aware.

4 Q. And are you generally aware that those  
5 requirements mean that AEP Ohio must implement energy  
6 efficiency programs in its service territory?

7 A. Yeah, if they are statutory requirements,  
8 then I am assuming AEP Ohio must do it.

9 Q. And do you know whether the energy savings  
10 associated -- associated with those programs are  
11 incorporated in PJM's load forecast?

12 A. Again, I do not know.

13 Q. Can you speak up just a little?

14 A. I'm sorry. I do not know.

15 Q. Thank you.

16 And do you know whether any  
17 behind-the-meter generation projects are planned to  
18 be constructed in AEP Ohio's service territory?

19 A. I am not familiar with any.

20 Q. And do you know whether the PJM load  
21 forecast incorporates potential energy efficiency  
22 measures that would be implemented for compliance  
23 with EPA's Clean Power Plan?

24 A. I don't know what PJM would do. My  
25 understanding is they get energy efficiency from

1 market participants, but I have no idea what they  
2 would do with it.

3 Q. And for purposes of coming up with your  
4 list of plants that would retire under the Clean  
5 Power Plan, you relied on EPA's option 1 regional  
6 compliance IPM modeling, correct?

7 A. Yes.

8 Q. Is it your understanding that -- that's  
9 EPA's modeling of potential compliance pathway for  
10 states under the complete -- Clean Power Plan?

11 A. I didn't understand your question.

12 Q. Okay. Sure. Happy to rephrase.

13 So is it your understanding that that  
14 modeling is meant to forecast a future in which  
15 states take various steps to comply with the Clean  
16 Power Plan?

17 A. Yes.

18 Q. Okay. A little more plain English there.

19 And would you agree that one option for  
20 states to comply with the Clean Power Plan would be  
21 to implement energy efficiency programs to reduce  
22 load and associated carbon emissions?

23 A. Yes. My understanding was that there was  
24 a building block in the proposed rule, but the new  
25 rule removed that building block so, I am not exactly

1       sure how that works. And so I don't know how that  
2       would be incorporated. I am not saying they won't.  
3       I am just saying I don't know how.

4           Q.       But you're -- the EPA modeling you relied  
5       on was in connection with the proposed rule, correct?

6           A.       That's correct.

7           Q.       And would you agree that one option for  
8       states to comply with the Clean Power Plan would be  
9       to -- would be for lower carbon emission generation  
10      to be constructed in those states, such as renewables  
11      or natural gas?

12          A.       So I will defer questions on how states  
13      are going to comply to the Clean Power Plan with  
14      Witness McManus because he is our environmental  
15      expert.

16          Q.       All right. So do you know whether the EPA  
17      modeling that you relied on forecasted any energy  
18      efficiency measures in states as part of their  
19      compliance with the Clean Power Plan?

20          A.       I believe it was one of the building  
21      blocks so it should have been in the model.

22          Q.       Okay. And do you know whether the EPA  
23      modeling that you relied on forecasted the  
24      construction of any new generation -- new lower  
25      carbon generation as part of compliance with the

1 Clean Power Plan?

2 A. I don't know what new lower carbon  
3 generation they relied on, but they did balance --  
4 they did have to balance their generation, whatever  
5 they retired they had to add new in to balance this  
6 off and I don't know what the details are of what  
7 they added in.

8 Q. But you would agree that the EPA modeling  
9 you relied on included forecast of new generation?

10 A. Yes.

11 Q. And did you ever check on what the load  
12 forecasts used in that EPA modeling were?

13 A. No, I did not.

14 Q. Okay. And did you ever check on what new  
15 generation was forecasted under that EPA model?

16 A. No, I did not.

17 Q. And so your analysis wouldn't incorporate  
18 any energy efficiency forecasted by EPA as modeling,  
19 correct?

20 A. When you say my "analysis."

21 Q. So your reliability analysis didn't use  
22 the load forecast included in EPA's modeling,  
23 correct?

24 A. That's correct.

25 Q. And your reliability analysis didn't

1 necessarily include new generation forecast in EPA's  
2 modeling, correct?

3 A. That's correct.

4 Q. But you did use the retirements forecast  
5 in EPA's IPM modeling, correct?

6 A. That's the best information we had  
7 available, yes.

8 Q. Okay. So is it correct you used a piece  
9 of EPA's IPM modeling but not the entire scenario  
10 forecast by the EPA?

11 A. Yeah. I think it's correct to say we used  
12 the best available information for both our cases.  
13 So the EPA's was the best information we had  
14 available for retirements. The PJM queue was the  
15 best information we had available at the time for new  
16 additions. So we just went with the best available  
17 information to us.

18 Q. Okay. But in making that assertion you  
19 don't know what new generation was forecast by EPA,  
20 correct?

21 A. That's correct.

22 Q. All right. And in your reliability  
23 analysis, am I correct that you did not include  
24 forecast generation of under 5 megawatts within --  
25 included within the PJM RTEP?



1           A.       Yes. So when we added in new generation,  
2 we did not add in generation that was less than  
3 5 megawatts primarily because it was not in the case,  
4 and we would have had to make some arbitrary  
5 decisions around how to add that into the case.  
6 Since it wasn't in there we didn't use it.

7           Q.       And would -- would PJM, in conducting its  
8 own reliability analysis, use those under 5-megawatt  
9 generation sources?

10          A.       Since they didn't have them in the case,  
11 anything they used the 2019 model for would not have  
12 included those in it. However, if they went forward  
13 and eventually they become visible, and in their  
14 case, then, yes, they would include it. But if they  
15 uses the same model we use, then they weren't in  
16 there, so we had no ability to use them.

17          Q.       And what's the rationale for the  
18 5-megawatt cutoff, if you know?

19          A.       They weren't in the case, so we didn't  
20 think that ultimately because 5 megawatts, and they  
21 are very spread out, we didn't think they would end  
22 up impacting the results of our analysis, so we  
23 didn't take the effort to go and try and figure out  
24 how we would arbitrarily model those.

25          Q.       So projects over 5 megawatts could affect

1 the reliability analysis?

2 A. Yes.

3 Q. And are you aware of whether there are any  
4 proposed combined power projects of over 5 megawatts  
5 in the AEP service territory?

6 A. I am not familiar with that.

7 Q. Did you inquire into that issue in the  
8 process of preparing your reliability analysis?

9 A. No. Again, we went with the PJM queue.

10 Q. And -- are you familiar that in PJM,  
11 energy prices for a given area are called "locational  
12 marginal price"?

13 A. Yes.

14 Q. Okay. And would you agree that the  
15 retirement of the PPA units that you forecasted in  
16 combination with the transmission upgrades you  
17 forecasted would change the locational marginal price  
18 of energy in the AEP Ohio service territory?

19 A. Yes. I didn't do any type of analysis  
20 around locational marginal prices, so I can't really  
21 speak to whether they would change, not change. We  
22 didn't do that analysis.

23 Q. Okay. And so you can't say whether energy  
24 prices would increase or decrease in AEP Ohio  
25 territory in the future that you were analyzing,

1 correct?

2 A. That's correct.

3 MS. FLEISHER: Okay. All right. That's  
4 all, your Honor. Thank you.

5 EXAMINER SEE: Thank you.

6 Mr. Settineri.

7 MR. SETTINERI: Thank you, your Honor.  
8 And if I speak loud, may I stay where I'm spread out?  
9 Is that acceptable with everybody?

10 EXAMINER SEE: As long as the witness can  
11 hear you.

12 THE WITNESS: You're fine.

13 MR. SETTINERI: Thank you, Mr. Bradish.

14 - - -

15 CROSS-EXAMINATION

16 By Mr. Settineri:

17 Q. Good afternoon, or I should say almost  
18 afternoon. My name is Mike Settineri. I represent  
19 clients in the Retail Energy Supply Association.  
20 Just a few questions for you, sir.

21 If you could turn to page 8 of your  
22 testimony for me, particularly lines 16 to 17.  
23 There's a question there "What transmission upgrades  
24 would be necessary to mitigate the impact of the  
25 generation units retirement?" Do you see that

1 question?

2 A. Yes.

3 Q. And in your answer you give an answer as  
4 to what those upgrades generally would be; is that  
5 correct?

6 A. Yes.

7 Q. And at page 9, line 4, you state "The  
8 estimated costs for the minimum upgrade required is  
9 \$1.6 billion." That figure relates back to the  
10 upgrades you discussed in your prior answer; is that  
11 correct?

12 A. That's correct.

13 Q. And that \$1.6 billion figure includes  
14 transmission upgrade costs not only to address the  
15 retirement of the PPA units but also what you believe  
16 may be retired units that may be retired under the  
17 Clean Power Plan, correct?

18 A. Yes. We modeled the retirements in the  
19 context of the Clean Power Plan moving forward,  
20 that's correct.

21 Q. So assume for me the PPA units, none of  
22 the PPA units close. In that instance you don't know  
23 how that \$1.6 billion figure would change, correct?

24 A. The PPA units don't go -- don't close,  
25 then those reliability problems associated with the

1 PPA units don't happen.

2 Q. Well, that's not what I am asking. I am  
3 asking about the \$1.6 billion figure which includes  
4 transmission upgrades both for the PPA units closing  
5 as well as the Clean Power Plan units that you  
6 predict are going to close. If the PPA units don't  
7 close, how does that figure change?

8 A. I didn't do that analysis.

9 Q. You don't know the answer to that  
10 question.

11 A. I did not do that analysis.

12 Q. Thank you.

13 If you could look at page 4 of your  
14 testimony, lines 16 to 17.

15 A. Okay.

16 Q. There you make the statement actually  
17 starting at line 15 "The retirement of Conesville  
18 would eliminate the last remaining major baseload  
19 generating plant in central Ohio leaving a major  
20 population susceptible to reliability risk." Do you  
21 see that language?

22 A. I do.

23 Q. Okay. If the Conesville plant stays open,  
24 that would eliminate the reliability risk that you  
25 discuss in your testimony at lines 15 to 17 on

1 page 4, correct?

2 A. Yes.

3 Q. And I'm also correct, aren't I, that AEP  
4 does not own 100 percent of the Conesville plant,  
5 correct?

6 A. That's my understanding.

7 Q. There was some questions earlier about the  
8 costs that would be assessed to customers in the AEP  
9 zone. Do you remember those questions generally?

10 A. Yes.

11 Q. For customers in the Ohio Power --  
12 customers of Ohio Power, do you know how those costs  
13 that would be assessed for the transmission -- let me  
14 strike. Let me start over.

15 For Ohio Power's customers, how will any  
16 transmission upgrade charges be assessed to those  
17 customers?

18 A. PJM will do that through the  
19 administration of their open access transmission  
20 tariff.

21 Q. Okay. And if I am an Ohio Power customer  
22 where on my bill am I going to see that charge coming  
23 from for those transmission upgrades?

24 A. I have no idea. I am not familiar with  
25 your bill structure.

1           Q.       All right. And if those charges were  
2       assessed against Ohio Power's customers, how would  
3       those charges be allocated among the different  
4       classes of Ohio Power's customers?

5           A.       I do not know.

6           Q.       You're not offering an opinion today as to  
7       whether any or all of the PPA units should retire,  
8       correct?

9           A.       That's correct.

10          Q.       I think in response to a question from  
11       Mr. Fisk you had indicated, and subject to check,  
12       that PJM has responsibility for grid reliability. My  
13       question for you is in regards to new generation  
14       interconnects PJM also has responsibility to ensure  
15       grid stability when a new generator interconnects to  
16       the grid; is that correct?

17          A.       That's correct.

18          Q.       And they do that through their new  
19       generation interconnect process, correct?

20          A.       That's correct.

21          Q.       And that also includes a system impact  
22       study, correct?

23          A.       Yes, it does.

24          Q.       And in the event upgrades are necessary as  
25       a result of that new generator connecting to the

1 grid, the new generator could be responsible for some  
2 or all of those costs, correct?

3 A. That's correct.

4 MR. SETTINERI: One moment, your Honor,  
5 please.

6 EXAMINER SEE: Yes.

7 MR. SETTINERI: Thank you.

8 Q. Are you aware that the Middletown gas  
9 plant has an ISA executed?

10 A. I wasn't aware of its status.

11 MR. SETTINERI: No further questions.  
12 Thank you, your Honor.

13 Thank you, Mr. Bradish.

14 EXAMINER SEE: Mr. Beeler?

15 MR. BEELER: No questions, thank you.

16 EXAMINER SEE: Redirect, Mr. Miller?

17 MR. MILLER: Give us a minute, your Honor.

18 EXAMINER SEE: Sure.

19 Mr. Miller.

20 MR. MILLER: Your Honor, we have nothing.

21 EXAMINER SEE: AEP has already moved for  
22 the admission of Bradish direct testimony AEP Exhibit  
23 7. Are there any objections?

24 Hearing none, AEP Exhibit 7 is admitted  
25 into the record.



1 (EXHIBIT ADMITTED INTO EVIDENCE.)

2 EXAMINER SEE: Thank you, Mr. Bradish.

3 You may step down.

4 Mr. Fisk.

5 MR. FISK: Thank you, your Honor. Sierra  
6 Club would move for the admission of Exhibits 23, 24,  
7 25, 26, 27, 28, and 29.

8 EXAMINER SEE: Are there any objections to  
9 the admission of Sierra Club Exhibits 23 through 29?

10 MR. MILLER: One objection, your Honor, to  
11 27. That was an attachment to a discovery response  
12 interrogatory. We would like the whole document  
13 appended.

14 MR. FISK: That's fine.

15 EXAMINER SEE: And when will you supply  
16 the Bench as well as the other intervenors a copy of  
17 a complete Exhibit 27?

18 MR. FISK: I can probably do it right now.

19 EXAMINER SEE: Okay.

20 MR. FISK: It's just the cover response.

21 EXAMINER SEE: Are there any other  
22 objections, Mr. Miller?

23 MR. MILLER: I don't believe so.

24 EXAMINER SEE: With that, Sierra Club  
25 Exhibits 23 through 29 are admitted into the record.

1 (EXHIBITS ADMITTED INTO EVIDENCE.)

2 MR. FISK: Thank you.

3 EXAMINER SEE: At this time let's take a  
4 lunch break until 1:15. We are off the record.

5 (Thereupon, at 12:08 p.m., a lunch recess  
6 was taken until 1:15 p.m.)

7 - - -

8 Monday Afternoon Session,  
9 October 5, 2015.

10 - - -

11 EXAMINER SEE: Let's go back on the  
12 record.

13 EXAMINER PARROT: Mr. Conway.

14 MR. CONWAY: Thank you, your Honor. At  
15 this time the company calls Renee Hawkins.

16 (Witness sworn.)

17 - - -

18 RENEE V. HAWKINS

19 being first duly sworn, as prescribed by law, was  
20 examined and testified as follows:

21 DIRECT EXAMINATION

22 By Mr. Conway:

23 Q. Ms. Hawkins, could you provide your full  
24 name for the record.

25 A. It's Renee B. Hawkins.

1 Q. And by whom are you employed?

2 A. I am employed by American Electric Power  
3 Service Corp. as Managing Director, Corporate  
4 Finance, and I also have the title Assistant  
5 Treasurer of AEP and the various utilities.

6 Q. Ms. Hawkins, did you prepare or have  
7 prepared at your direction prefiled testimony for  
8 this case?

9 A. I did.

10 Q. And do you have a copy of it with you?

11 A. I do.

12 MR. CONWAY: At this time, your Honor, I  
13 would like to mark as AEP Ohio Exhibit No. 8  
14 Ms. Hawkins' prefiled testimony that was submitted  
15 into the docket on May 15, 2015.

16 EXAMINER PARROT: So marked.

17 (EXHIBIT MARKED FOR IDENTIFICATION.)

18 Q. Ms. Hawkins, do you have any changes to  
19 make to your testimony at this time?

20 A. I do not.

21 Q. And if I were to ask you the questions  
22 contained in your prefiled testimony, AEP Ohio  
23 Exhibit No. 8 today, would your answers be the same  
24 as contained in that document?

25 A. They would.

1 Q. And are your answers true and correct to  
2 the best of your knowledge and belief?

3 A. Yes.

4 MR. CONWAY: And at this time, your Honor,  
5 I would move for the admission of AEP Exhibit No. 8,  
6 and Ms. Hawkins is available for cross-examination.

7 EXAMINER PARROT: Thank you.

8 Mr. Fisk.

9 MR. FISK: No questions, your Honor.

10 EXAMINER PARROT: Ms. Ghiloni.

11 MS. GHILONI: Just a few questions.

12 - - -

13 CROSS-EXAMINATION

14 By Ms. Ghiloni:

15 Q. Good afternoon, Ms. Hawkins. My name is  
16 Danielle Ghiloni. I represent Ohio Manufacturers'  
17 Association Energy Group. You stated on page 4 of  
18 your testimony that AEPGR must maintain high equity  
19 in order to support a business profile consistent  
20 with an investment grade rating, correct?

21 A. That's correct.

22 Q. And this is because AEPGR actively trades  
23 in the power markets and is subject to volatile power  
24 and commodity price, right?

25 A. It's what is required for them to be a

1 strong counterparty for basically counterparty  
2 contracts. So since we announced, you know, really  
3 that we were going to set up this entity, we have  
4 always stated it was going to have a lot of equity in  
5 it.

6 Q. Okay. And for this contract between AEP  
7 Ohio and AEPGR, AEP Ohio is proposing a contract  
8 based on a fixed capital structure of 50 percent  
9 equity and 50 percent debt, correct?

10 A. Yes. We looked at the 70 percent equity  
11 and we -- you know, to acknowledge the fact that's  
12 really a lot of equity in a regulatory environment,  
13 we brought the equity down from 70 percent to  
14 50 percent and fixed it.

15 Q. And why did you -- why did you do that?  
16 Why did you bring it down from the 70 percent equity  
17 to the 50 percent?

18 A. Well, I think for one, it really  
19 acknowledges there is a change in business risk  
20 related to the contracts so that perhaps 70 percent  
21 is a little high in terms of equity as it relates to  
22 just this contract. So, overall, AEPGR is financed  
23 with 65 to 70 percent equity, but for this contract  
24 we acknowledge it probably made more sense for it to  
25 be a fixed -- a 50 percent equity layer.

1 Q. Okay. You also developed a formula to  
2 calculate the return on equity for this contract as  
3 well, correct?

4 A. Well, we have a number of FERC wholesale  
5 contracts and we looked -- we used that same  
6 methodology for return on equity that we've used in a  
7 number of other FERC contracts so I wouldn't say we  
8 developed it just for this case.

9 Q. Okay.

10 A. It's a methodology for FERC wholesale  
11 contracts.

12 Q. Okay. So you've used this formula for all  
13 other contracts.

14 A. I won't say "all" because I would have had  
15 to have looked at every one of them but, you know,  
16 for any number of like, you know, two dozen plus  
17 contracts that we have, yes.

18 Q. Okay. And would you say that's a majority  
19 then?

20 A. I think it's probably the majority.

21 Q. Okay. And that formula resulted in an  
22 initial return on equity of 11.24 percent, correct?

23 A. Yes.

24 Q. Okay. And then that utilized the daily  
25 Moody's index plus the 650 basis points, correct?

1           A.       It uses the average -- the December  
2           average of the Moody's corporate bond index so it's  
3           an average of December. So I would say it's the --  
4           it's not just a daily number. It's an average of a  
5           number of days.

6           Q.       Okay.

7           A.       So it's the December average.

8           Q.       And why did you use the December average?

9           A.       Well, we are setting it forward looking  
10          for the next year is how the contracts look. So we  
11          look at December because it's closest to the year  
12          it's going to be in effect. And by using a whole  
13          month, you basically -- if there is any type of  
14          irregularities or kind of, you know, unusual, you  
15          know, interest rates on one day, let's say interest  
16          rates just popped up on December 31, that would be  
17          mitigated by looking at a monthly average. Or I  
18          guess pop down, but.

19          Q.       Is this also similar to -- is this similar  
20          to what you have done with other contracts as well?

21          A.       It is.

22          Q.       And the 650 basis points, why did you use  
23          that number?

24          A.       So we looked at a couple of things. We  
25          looked at where we wanted to start the overall

1 original contract, and then we looked at the  
2 additional risks and changes that we had in this  
3 contract in terms of, you know, this contract we did  
4 fix the capital structure. The other contracts don't  
5 have a fixed capital structure so this one has that  
6 change in it.

7           You know, we lowered the ceiling. A lot  
8 of the other contracts have ceilings as high as  
9 21 percent, quite a few of them at 18 percent, but we  
10 lowered that ceiling to 15.9. So just the overall  
11 changes we made, we also, you know, set that at 650  
12 over.

13       Q.       And where did you get the basis for that  
14 number?

15       A.       I mean, it was just through the  
16 discussions that we had, you know, through the  
17 process.

18       Q.       And have you utilized that number  
19 previously in other contracts?

20       A.       I don't believe so, no.

21       Q.       Just this contract.

22       A.       Yes.

23               MS. GHILONI: Okay. Thank you,  
24 Ms. Hawkins.

25               No further questions, your Honors.



1 EXAMINER PARROT: Mr. Moore.

2 MR. MOORE: Thank you, your Honor.

3 - - -

4 CROSS-EXAMINATION

5 By Mr. Moore:

6 Q. Good afternoon, Ms. Hawkins. I'm Kevin  
7 Moore. I represent Ohio Consumers' Counsel.

8 A. Good afternoon.

9 Q. So your proposed ROE in this proceeding  
10 will be used to calculate a rate charged by AEPGR to  
11 AEP Ohio for electricity produced by the PPA units;  
12 is that correct?

13 A. That's correct.

14 Q. And this proposed ROE is for the life of  
15 the PPA units, right?

16 A. The methodology would be for the life of  
17 the FERC wholesale contracts. So, yes, the  
18 methodology is for the life of the contract.

19 Q. And the life of the contract is currently  
20 for the life of the PPA units; is that right?

21 A. Yes, yes.

22 Q. And the return on capital and the return  
23 on equity for the PPA units is included or is  
24 collected through a nonbypassable rider; is that  
25 correct?

1           A.       That's my understanding.

2           Q.       And AEP Ohio distribution customers will  
3 be charged through this PPA rider, correct?

4           A.       Yes.

5           Q.       If the proposed ROE were to increase or  
6 increased, would the rate charged by AEPGR to AEP  
7 Ohio for electricity produced in the PPA units  
8 increase as well?

9           A.       I'm sorry. Can you repeat that?

10                  MR. MOORE: Can you repeat the question?

11                  (Record read.)

12           A.       I'm struggling with the fact we are  
13 liquidating the power in the market, but this is the  
14 cost associated with, you know, the capacity costs.  
15 So, but let me just say that the costs related to the  
16 capacity costs will go up if -- if the -- I'm  
17 sorry -- if the ROE goes up, or it would go down if  
18 the ROE went down.

19           Q.       But would the rate charged from AEPGR to  
20 AEP Ohio change?

21           A.       It would.

22           Q.       So assuming the market price for  
23 electricity stays the same, as the ROE increases,  
24 AEPGR's revenues from the sales of electricity  
25 generated by these PPA units would increase as well,

1 correct?

2 MR. CONWAY: Objection. It certainly  
3 assumes facts that haven't been established that, for  
4 example, all else is the same other than the ROE  
5 increase, so I just object to the -- to the question  
6 because of the foundation to it.

7 MR. MOORE: Your Honor, I am simply  
8 proffering a hypothetical situation.

9 EXAMINER PARROT: And I think you did  
10 start by saying you were assuming things, so I am  
11 going to allow the question.

12 THE WITNESS: Can you repeat the question?  
13 (Record read.)

14 A. AEP -- if the return on equity were to go  
15 up, then the capacity revenue would increase because  
16 of the change in ROE.

17 Q. So, therefore, AEPGR's revenues would  
18 increase, correct?

19 A. I don't know. I can tell you the capacity  
20 revenue would increase, but the rest of it I can't  
21 talk to.

22 Q. Is AEPGR receiving this capacity revenue?

23 A. They are. So their capacity revenue will  
24 go up.

25 Q. But you don't know if any other revenues

1 would increase?

2 A. Correct.

3 Q. Again, assuming that electricity prices  
4 stay the same, if the number of AEP Ohio electricity  
5 customers changes, there would be no resulting impact  
6 on the ROE earned by AEPGR from these PPA units,  
7 correct?

8 A. Correct.

9 Q. And, again, assuming electricity prices  
10 stay the same, if the operating and maintenance costs  
11 for the PPA units changes, there would be no impact  
12 on the ROE of AEPGR, correct?

13 A. That's correct. This just deals with the  
14 capacity part of the payment.

15 Q. And the same could be said if fuel costs  
16 for the PPA units changes, there would be no  
17 resulting impact under an ROE for AEPGR?

18 A. I wouldn't expect there to be any, no.

19 Q. Ms. Hawkins, would you agree the  
20 generation market in Ohio is fairly unregulated?

21 A. I would agree with that.

22 Q. It's now -- Ohio now has a competitive  
23 market for electricity generation, right?

24 A. Yes.

25 Q. And AEPGR is an unregulated electricity

1 generator in Ohio, correct?

2 A. Yes.

3 Q. And as an unregulated electricity  
4 generator in Ohio's competitive generation market,  
5 AEPGR does not currently receive a guaranteed return  
6 or profit on its investment in any of its generation  
7 assets; is that right?

8 A. I don't know if they have any fixed  
9 contracts or not, to tell you the truth. I mean,  
10 this -- you know, this is just a fixed contract. You  
11 know, plenty of merchant generators enter into fixed  
12 contracts.

13 Q. Okay. But as a general matter, AEPGR does  
14 not receive a guaranteed return for its generation,  
15 correct?

16 A. I have no idea if they have other -- other  
17 purchase power agreements or not.

18 Q. Okay. But generation plants that don't  
19 have purchase power agreements would not receive a  
20 guaranteed return, correct?

21 A. That would be -- that would be correct.

22 Q. So for those generation plants that don't  
23 have a power purchase agreement, their return or  
24 profit is determined through the competitive  
25 marketplace that we just spoke about, correct?

1 A. Yes.

2 Q. So, Ms. Hawkins, to determine your  
3 proposed ROE, you utilized an approach that's  
4 commonly referred to as the "risk premium model" or  
5 "capital asset pricing model"; is that right?

6 A. To determine the ROE? No, we just used  
7 our methodology that we used in a number of other  
8 wholesale contracts where we looked at basically a  
9 proxy for interest rates which was the Moody's Baa  
10 corporate bond index, and we added a, you know, a  
11 margin to that.

12 Q. I see. Did you not use a -- the risk  
13 premium model?

14 A. No.

15 Q. What did you use the risk premium model to  
16 do?

17 A. To validate the analysis, to validate the  
18 return on equity in the contract.

19 Q. You did not utilize the discounted cash  
20 flow model in this proceeding; is that right?

21 A. That's correct.

22 Q. And the risk premium model or capital  
23 asset pricing model, that's a risk premium approach  
24 to gauge a firm's cost of equity capital, correct?

25 A. Yeah. Yes. Sorry.

1 Q. And under this approach, the cost of  
2 equity is the sum of the return on risk-free  
3 investments and risk premium; is that correct?

4 A. Yeah. You have got beta in there as well,  
5 but, you know, effectively you have got the risk-free  
6 rate, the market beta, and then the risk premium.

7 Q. Can you explain what a risk premium is?

8 A. It's the difference between the risk-free  
9 rate and market returns.

10 Q. In your opinion what do you consider a  
11 good measure of the return on risk-free investments?

12 A. You -- so what --

13 THE WITNESS: Can you repeat that question  
14 to me?

15 (Record read.)

16 A. U.S. treasuries would be a good proxy for  
17 risk-free rates. It's what's typically used.

18 Q. Did you use U.S. treasuries in this  
19 proceeding?

20 A. For the establishment of the return on  
21 equity, I did not, because, again, it's the method  
22 that we use for establishing return on equities in  
23 our wholesale contracts.

24 To validate either -- what we used and to  
25 look at the reasonableness of that result, I did use

1 the overall risk-free rate in completing the CAPM  
2 analysis for utilities and other industries. That's  
3 in my Exhibit RVH-1.

4 Q. Did you review what the treasury bond rate  
5 was when you were formulating your testimony?

6 A. I mean, I generally know where it is, so I  
7 don't know that I did a detailed analysis of where it  
8 was at that time.

9 Q. What is it generally today?

10 A. Oh, today, the 10-year is at about  
11 2 percent and the 30-year is maybe 3.3 percent.  
12 That's off the top of my head.

13 Q. And that's lower than the Moody's  
14 corporate bond index that you used in this  
15 proceeding, correct?

16 A. It's a totally different methodology. So  
17 it is lower but, again, we did not use CAPM to  
18 establish the return on equity in that contract.

19 Q. But a lower -- if you were using CAPM, a  
20 lower risk-free bond yield would result in a lower  
21 return on equity, correct?

22 A. I would have to redo the entire analysis  
23 but I mean -- I will say that in Exhibit RVH-1 I did  
24 look at CAPM to validate the results. So we did use  
25 CAPM; we just used it to evaluate the reasonableness



1 of our FERC wholesale methodology.

2 Q. But generally speaking, lower risk-free  
3 bond yield would result in a lower return on equity?

4 A. I would have to complete the analysis  
5 again from scratch.

6 Q. Okay. So you can't -- you couldn't tell.

7 A. Because the -- because you would have  
8 to -- you would have to complete the analysis from  
9 scratch. The risk -- that's -- the risk-free rate is  
10 just one item. You would have to relook at betas.  
11 You would have to relook at basically market returns.

12 In Exhibit RVH-1 we did do the CAPM at the  
13 time that I completed my analysis and we did look at  
14 what returns on equities would be for both, you know,  
15 utilities for IPPs and then other corporate -- other  
16 type of industries because of the fact that this  
17 isn't a utility that -- I'm sorry, the AEP Generating  
18 Resources isn't a utility. So you would have to look  
19 at other proxies for determining an appropriate  
20 return on equity.

21 Q. The proposed ROE of 11.24 percent in your  
22 testimony is the sum of the average Moody's corporate  
23 bond index of 4.74 plus an estimated equity risk  
24 premium of 6.5 percent, correct?

25 A. I would not call it an "estimated risk

1 premium." What it is is the Moody's Baa corporate  
2 bond index with the -- with the margin that was  
3 established in the contract.

4 Q. Okay. But the 4.74 plus the 6.5 equals  
5 the 11.24?

6 A. It does.

7 Q. So if you had a number that was lower than  
8 4.74 for your -- for the bond index, you would have a  
9 lower ROE, correct?

10 A. Correct.

11 Q. And the Moody's corporate bond index that  
12 you used in this proceeding does not include yields  
13 of bonds just from power producers, right?

14 A. That's right. It's an overall  
15 corporate -- corporate Baal which is basically  
16 mid-investment grade bond index, so it captures a  
17 much broader market.

18 Q. You spoke earlier about 650 basis points  
19 you used in this proceeding. And I believe you  
20 testified that that was a number that was determined  
21 through speaking with other members of AEP Ohio; is  
22 that correct?

23 A. It was part of the overall, I would say,  
24 discussions that we had as we were looking at the  
25 contract.

1 Q. Do you know who specifically you spoke  
2 with to determine that number?

3 A. No. I mean, there was just a lot of us  
4 that were working on it.

5 Q. Do you know when that 650 basis point  
6 number was determined?

7 A. It was prior to the original filing in  
8 October of 2014.

9 Q. Okay. But do you know when you decided to  
10 use that number for your -- for the original filing?

11 A. No.

12 Q. If you could turn to page 6, line 2 of  
13 your testimony. Tell me when you are there.

14 A. I am there.

15 Q. Okay. It says "The Moody's Index rate  
16 would be used until 2017"; is that correct?

17 A. That's correct.

18 Q. What Moody's index rate do you propose to  
19 use after 2017?

20 A. So for -- so for the -- let me go back.  
21 So the cost of debt after that time period would be  
22 the actual cost of debt for AEP Generating Resources  
23 and that's what that is referring to, so.

24 Q. Am I correct that AEP currently has a  
25 Moody's Baa1 rating?

1           A.       Yes. That's true, AEP's credit rating is  
2       Baal.

3           Q.       And it's Standard & Poor's is BBB; is that  
4       correct?

5           A.       That's correct.

6                   MR. MOORE: No further questions, your  
7       Honor.

8                   Thank you, Ms. Hawkins.

9                   EXAMINER PARROT: Mr. Olikier.

10                  MR. OLIKER: Thank you, your Honor.

11                               - - -

12                               CROSS-EXAMINATION

13       By Mr. Olikier:

14           Q.       Good afternoon, Ms. Hawkins.

15           A.       Good afternoon.

16           Q.       My name is Joe Olikier with IGS Energy.  
17       Just a few questions. Turning to page 6, line 10, am  
18       I correct that the long-term debt rate for energy in  
19       your testimony is about 6.25 percent?

20           A.       The other comparables that we looked at or  
21       the other possibilities that we looked at were, you  
22       know, 6 percent.

23           Q.       Okay. Likewise on page 12, when you talk  
24       about the Brattle report, I think they use a  
25       7 percent debt rate, correct?

1           A.       In their Cost of New Entry study or CONE  
2 study that they used for PJM, they did use a  
3 7 percent cost of debt.

4           Q.       And the reason that those have been  
5 included in your testimony is to show the  
6 reasonableness of the weighted average cost of  
7 capital, correct?

8           A.       Yeah. I would mention that related to the  
9 cost of debt we looked at a couple of other -- a  
10 couple other proxies but that's -- that can be very  
11 specific to when you issue debt, which is why I said  
12 the 4.74, which is like the current yield for  
13 December is probably more relevant because it was --  
14 you know, it's based on yields in December of 20 --  
15 of 2014.

16          Q.       Okay. So let's talk about that. First,  
17 you mentioned that there was a cost of financing  
18 through May 2015, safe to say that we're passed that  
19 date, correct? So there's -- this statement in your  
20 testimony, has there been a refinancing?

21          A.       We still have the AEP Generating Resources  
22 in an interim financing mode. We had a term loan.  
23 Basically short-term debt is how we financed those  
24 assets when we spun them out of Ohio Power. It's  
25 just, you know, interim financing. And in May of

1 2015 when that matured, we kept those -- we kept  
2 those assets financed basically with interim  
3 financing.

4 Q. And the interim financing will expire  
5 around 2017, correct?

6 A. Yeah, I think that's about right.

7 Q. And could you identify -- what is the  
8 total amount of debt in the books of AEP Generation  
9 Resources?

10 A. The term loan itself was 500 million and  
11 there's maybe some pollution control bonds so it may  
12 be about 650ish right now. Something in that range.

13 Q. And what portion of that debt pertains to  
14 the PPA-related units that are at issue in this  
15 proceeding?

16 A. I -- I haven't done that calculation.

17 Q. Does a portion of that debt pertain to  
18 Gavin and the Waterford and Darby resources?

19 A. Yeah. AEP Generation -- AEP Generation  
20 Resources is financed on a whole -- a holistic basis  
21 so it applies to all the assets.

22 Q. So the assets -- so the debt is tied to  
23 specific units, correct?

24 A. Correct.

25 Q. Okay. And as I understand the power

1 purchase agreement that's been proposed between AEP  
2 Generation Resources and AEP Ohio, the long-term debt  
3 rate would be based upon the total debt of AEP  
4 Generation Resources, correct?

5 A. It would be.

6 Q. Okay. So are you familiar with the  
7 proposal that exists that would allow AEP Generation  
8 Resources to put the PPA-related units in a special  
9 purpose vehicle or other entity?

10 A. I am.

11 Q. And if that were to occur, would the debt  
12 rate for that entity still be based upon AEP  
13 Generation Resources long-term debt if you know?

14 A. You know what, I would have to review the  
15 contract to say that specifically.

16 Q. I was -- I was just trying to figure that  
17 out myself. Maybe you can help me do that.

18 MR. OLIKER: Could you provide the witness  
19 with a copy of the power purchase and sale agreement?

20 MR. CONWAY: Has it been marked as an  
21 exhibit in your case?

22 MR. OLIKER: Yes. It's Sierra Club  
23 Exhibit 2, I believe.

24 A. Was there something specific you wanted me  
25 to look at?

1           Q.       Yeah. Sure. We can take it a step at a  
2 time. I think this would be easier to turn to  
3 seller's long-term debt rate which is on page --  
4 numbered page 7 or page 11 of 32 in the top right  
5 corner. And let me know when you are there,  
6 Ms. Hawkins.

7           A.       I am there.

8           Q.       And take a look at the provision "Seller's  
9 Long Term Debt Rate" but let me know if the term,  
10 understanding I am not asking for a legal opinion,  
11 but whether the debt rate is tied exclusively to the  
12 seller's average annual long-term debt costs as  
13 "seller" is defined in this agreement.

14          A.       So "seller" is defined in this agreement,  
15 as I read it, not being an attorney either -- or not  
16 being an attorney, as being -- as being GenCo. And  
17 the term "seller's debt percentage" and "seller's  
18 long term debt rate" would refer to -- what's  
19 referred to here as "GenCo" but it's -- I believe  
20 it's AGR. So it would be their overall cost of debt.

21          Q.       Okay. So we can -- just so we can make  
22 sure the record is clear, I think what you just said,  
23 and correct me if I am wrong, is the seller's  
24 long-term debt rate is tied to whatever definition  
25 seller is and seller is defined as GenCo, correct?



1           A.       I will say that in my mind the -- the  
2 contract refers to GenCo as owning -- having an  
3 ownership interest in generation facilities included  
4 in Schedule A, and if you look at Schedule A, the  
5 generation entities are all the ones listed that are  
6 part of this -- this contract. So it's not -- you  
7 know, it could very well be that it would just be,  
8 you know, as I read this, it could very well be that  
9 it's just the SPE quite frankly.

10          Q.       Okay. So, first, can we go back to my  
11 question. Do you agree that the long-term debt rate  
12 in this contract is tied to the definition of  
13 "seller"?

14          A.       I do.

15          Q.       Okay. And I think you said "seller" is  
16 defined in the preamble as GenCo, correct?

17          A.       It does.

18          Q.       Okay. And so, sitting here today, can you  
19 tell me if the units are put into a special purpose  
20 entity, whether they will be based solely on the debt  
21 in the entity or if they would still be tied to  
22 GenCo's long-term debt cost?

23          A.       If the signatory is the SPE, it would be  
24 with the SPE. If it's just that AGR, it could be  
25 AGR. It just depends on how -- and I'm sorry. I

1 just didn't catch how GenCo was defined. I apologize  
2 for that.

3 Q. Okay. So, if I understand you answer,  
4 it's a matter of timing. If the -- if the units are  
5 spun off into a special purpose entity before the  
6 contract is signed, then the debt rate would be tied  
7 to that entity. But if GenCo were to sign before  
8 that were to occur, then the debt rate would be tied  
9 to GenCo, correct?

10 A. Yeah. I think, you know, from my -- yeah,  
11 I am just not that clear on it, but my -- I think the  
12 intent would be to tie it -- there's financing at the  
13 asset level, the SPE level, the intent would be to  
14 have that financing reflected in the contract. It's  
15 intended to reflect the actual cost of debt and then  
16 the capital structure fixed at 50/50.

17 Q. When you say it's "intended to reflect the  
18 actual cost of debt," whose debt are you referring  
19 to?

20 A. So if the assets are financed at the SPE  
21 level, then it should be the SPE. If the -- if all  
22 the financing occurs at the parent level, then it  
23 would be the parent's cost of debt. But the intent  
24 is to have it reflect the actual cost of debt and  
25 then a return on equity.

1           Q.       Okay. And when the financing -- first,  
2       would you agree there are different types of  
3       long-term financing instruments that an entity can  
4       enter into?

5           A.       Sure.

6           Q.       Okay. And the debt rate that the lender  
7       is willing to provide may depend on the level of risk  
8       associated with the financing instrument, correct?  
9       As the lender sees it at least?

10          A.       I mean, we are kind of simple at our  
11       company. We have long-term debt and we have equity  
12       and, you know, we may have a little -- we have  
13       short-term debt and different things but there could  
14       be different instruments. You know, this would be  
15       intended to basically be long-term debt utilized.  
16       Senior unsecured debt or something similar.

17          Q.       Is there a negotiation that goes back and  
18       forth between the -- between AEP Generation Resources  
19       and AEP Ohio about the debt rate itself and the  
20       terms?

21          A.       There would be.

22          Q.       And there's nothing in this proposed PPA  
23       agreement that would specify the type of long-term  
24       financing arrangement that AEP Generation Resources  
25       would enter, correct?

1 A. That's correct.

2 Q. Okay.

3 A. I mean, the goal for AEP Generating  
4 Resources was to obtain, you know, a reasonable cost  
5 of debt, you know, with what -- with, you know,  
6 whatever life -- maturities and other terms that, you  
7 know, they would negotiate or be willing to live  
8 with.

9 Q. And would you agree that current debt  
10 markets reflect very low prices?

11 MR. CONWAY: Objection. Vague, ambiguous.

12 EXAMINER PARROT: The witness may say if  
13 she needs further clarification, but I am going to  
14 allow the question.

15 A. I guess I would say what would be the  
16 comparison to what?

17 Q. Outside of the 2010 to 2015 period  
18 following, you know, the economic recession, would  
19 you agree that debt rates have been higher than 4.7  
20 percent?

21 A. So we have been in a low interest rate  
22 environment for seven years. There have been higher  
23 interest rate environments; there have also been  
24 lower interest rate environments. The rates  
25 immediately before, you know, seven years were

1 higher. So it just depends on what you are -- what  
2 your time scale is.

3 Q. So is there any specific reason why AEP  
4 Generation Resources would wait until 2017 to  
5 refinance?

6 A. I mean, we may do it sooner but we  
7 established interim financing for at least two years  
8 to, you know, basically have some time as we studied  
9 that business.

10 Q. Okay. And the Federal Reserve, which will  
11 raise interest rates between now and then, would you  
12 agree that interest rates could go up?

13 A. I would say that if the Federal Reserve  
14 were to raise interest rates, that short-term  
15 interest rates could go up. Long-term interest rates  
16 may or may not go up depending on what the view is on  
17 long-term interest rates. I would also say that, you  
18 know, we have been waiting for higher interest rates  
19 for the last five years. They haven't materialized.

20 Q. So you agree there is a consensus that  
21 eventually interest rates will go up?

22 A. There's a consensus that short-term  
23 interest rates will go up but that does not mean that  
24 long-term interest rates will move in tandem.

25 Q. And going back to the discussion of this

1 special purpose entity, if you are comfortable with  
2 that terminology, is that contained in the purchase  
3 power agreement anywhere?

4 A. I would have to read the whole thing to  
5 determine that.

6 Q. That's okay. As long as you are  
7 comfortable with that terminology for purposes of our  
8 conversation, I think we can move forward with that.  
9 Assuming the hypothetical that AEP Generation  
10 Resources creates another entity, puts the PPA  
11 rider -- PPA units in an entity, and then it would  
12 sell those units to a third party, would the  
13 long-term debt rate then be based upon the purchasing  
14 entity's debt rate?

15 A. Well, if it's at the SPE, I would expect  
16 it to be based on the debt rate within the SPE, not  
17 necessarily the debt rate of the purchaser. So if  
18 there is financing at the SPE, I would expect it to  
19 be at the financing rate of the SPE.

20 Q. Okay.

21 A. The debt rate, sorry. So you can move the  
22 assets with debt in place.

23 Q. Okay. But they could also be -- the  
24 purchasing entity could also modify those debt  
25 arrangements, correct?

1           A.       Depending on the terms of the sale they  
2       may be able to, sure.

3           Q.       If they were to modify the terms of those  
4       debt arrangements, that would flow through the PPA  
5       rider, correct?

6           A.       Yeah. On an annual basis, you know, you  
7       look at the cost of capital, you know, every year.

8           Q.       Okay. So assuming five years down the  
9       road AEP Generation Resources decides to sell the  
10      units to a third party and we're in a higher interest  
11      rate environment, there is the potential that could  
12      flow through the PPA rider.

13          A.       Regardless of who owns the units, you  
14      know, if there is a refinancing event that occurs at  
15      that time, you could -- you could have a higher cost  
16      or lower cost of debt at that time. It could be that  
17      permanent financing is put in place in 2016, in which  
18      case, you know, whatever rate's used for the cost of  
19      debt in 2020, it would still be the 2016, you know,  
20      senior notes or bonds that are put in place at 2016.  
21      Whatever cost is put in would be for the life of  
22      those bonds.

23          Q.       And would you agree that there's also  
24      going to be a need to finance ongoing capital  
25      expenditures for these units?

1           A.       There may be. I mean, it depends on what  
2       their free cash flow is. It may be that they need to  
3       finance capital. It may be that they can do it  
4       internally. I just don't know.

5           Q.       Okay. And --

6                   MR. OLIKER: Can I have a minute, your  
7       Honor?

8                   EXAMINER PARROT: You may.

9           Q.       Do you believe AEP Generation Resources --  
10      I'll ask it again.

11                   Do you believe AEP Generation Resources  
12      has an investment-grade credit rating?

13          A.       So you mean if we were to get a credit  
14      rating, would they have an investment-grade credit  
15      rating?

16          Q.       Yes.

17          A.       Everything we have done in terms of  
18      managing that business is to allow for them to have  
19      an investment grade rating. That's why we have  
20      equity right -- right now of 65 to 70 percent equity.  
21      So that they would have -- you know, they would have  
22      all the characteristics of an investment-grade  
23      rating. Until you take it to the rating agency, you  
24      don't know what answer you are going to get, but  
25      that's been the goal.



1           Q.       Is there a reason why AEP Generation  
2 Resources has not gone to the credit rating indices?

3           A.       We would do that as part of arranging  
4 permanent financing. There hasn't been any reason to  
5 until we go for permanent financing.

6           MR. OLIKER: Those are all the questions I  
7 have, your Honor. Thank you.

8           EXAMINER PARROT: Mr. Darr.

9           MR. DARR: Thank you, your Honor.

10                   - - -

11                   CROSS-EXAMINATION

12 By Mr. Darr:

13           Q.       AEP Generation Resources is wholly owned  
14 by AEP or is it wholly owned by some other party?

15           A.       I believe it's wholly owned by AEP, Inc.

16           Q.       In your testimony at page 5 you indicate  
17 that the proposed capital structure of 50 percent  
18 long-term debt and 50 percent equity is designed to  
19 reflect, I will quote here, "the benefits to AEPGR  
20 from the long-term nature of the contract and the  
21 stability of the cash flows from the contract." Do  
22 you see that quotation at page 5, lines 7 through 9?

23           A.       I do.

24           Q.       And I just want to understand this a  
25 little bit better. In response to a question from

1 counsel for OMA Energy Group, you indicated that this  
2 is, in part, to recognize the change in business risk  
3 associated with this contract relative to the current  
4 situation; is that a fair statement?

5 A. I think it's fair enough. It's close  
6 enough.

7 Q. Okay. How would you modify it if I  
8 have -- because obviously you are qualifying it by  
9 saying "it's fair enough."

10 A. I think it -- you know, as I said in my  
11 answer, it recognizes the fact that you normally  
12 wouldn't see a regulatory -- something in front of a  
13 regulatory body that has 65 to 70 percent equity  
14 where they were today and there are benefits to AGR  
15 of the contract again which is another reason we  
16 brought the equity from 70 percent to 50 percent.

17 Q. And the benefits that you recognize are  
18 the long-term nature of the contract, and by that you  
19 are referring to the up to or potentially 36 or more  
20 years of a contract relationship between AEP Ohio and  
21 AEP Generation Resources; is that correct?

22 A. Yeah. What I said in my testimony was the  
23 stability of the cash flows. I didn't talk about the  
24 term as much but, yeah, just the fact -- this portion  
25 of the contract.

1 Q. And the contract that we are talking about  
2 is the long-term contract of potentially 36 or more  
3 years, correct?

4 A. I understand it's for the life of the  
5 plants, so I don't believe most of them have a life  
6 up to 36 years, but perhaps one of them does.

7 Q. Okay. You are not familiar specifically  
8 with the life of any particular plant contained in  
9 the contract?

10 A. I haven't looked at it recently, sorry.

11 Q. Now, with regard to the cash flow that you  
12 are referring to, am I correct that what you are  
13 stating here is that there's, under the contract, an  
14 expectation there will be steady cash flows running  
15 from AEP Ohio to AEP Generation Resources for the  
16 capacity, energy, and ancillary services produced by  
17 the PPA units, correct?

18 A. Correct.

19 Q. And under the contract it provides for the  
20 recovery of the variable costs, the depreciation  
21 component, a return component, and all other related  
22 expenses associated with the operation of those  
23 units, correct?

24 A. That's my understanding.

25 Q. As a result of this fixing of the cash

1 flows then, what you have proposed here is to adopt  
2 what would, I believe you referred to, as a more  
3 regulatory-like capital structure; is that fair?

4 A. Yeah. That's fair. I mean, I would say  
5 we took our typical FERC wholesale contract, and we  
6 made some modifications such as fixing the equity  
7 versus the other ones. It's just going to be actual  
8 capital structure. And, you know, we modified -- we  
9 lowered the ceiling. We made some changes.

10 Q. On a going-forward basis, the expectation  
11 is that you would maintain this roughly 30/70 capital  
12 structure to allow the company to receive an  
13 investment-grade credit rating?

14 A. So that's what -- yeah, our intent with  
15 AEP Generation Resources is to have 70 percent -- 65  
16 to 70 percent equity and that would be our intent to  
17 maintain that.

18 Q. And that would continue through the life  
19 of the AEPGR, correct, is that the expectation?

20 A. Yeah. There would be no reason for that  
21 to change. That's what we think we need for an  
22 investment-grade rating. I hesitated because it  
23 would be that, you know, if investment-grade rating  
24 requirements are a little different, we may modify.  
25 Our intent is to have it be an equity layer more

1 consistent with nonutilities, more consistent with  
2 corporate's.

3 Q. Now, with regard to the adjustment of the  
4 debt equity to a 50 percent long-term 50 percent  
5 equity relationship, would this be a recognition that  
6 AEP Generation Resources has a lower credit risk  
7 associated with its cash flows?

8 A. I probably wouldn't go so far as to say  
9 that. I would just say -- you know, it recognizes  
10 the fact that this is a portion that's been  
11 contracted and that -- you know, this is a contract  
12 in front of a regulatory body.

13 Q. Well, if we define credit risk as the risk  
14 that a counterparty would fail to perform or fail to  
15 pay, would you agree with me the credit risk  
16 associated with this contract would be lower than  
17 what -- than the credit risks that AEP Generation  
18 Resources currently faces in the PJM market?

19 THE WITNESS: Can you repeat that question  
20 back to me? I think I was thinking too hard on it.

21 (Record read.)

22 A. It -- so, you know, from a counterparty's  
23 perspective, it would depend on what the counterparty  
24 at AEP Generation Resources faces versus the, you  
25 know, versus the counterparty of AEP Ohio. That's

1     what -- that's what their risk of payment are through  
2     our counterparties. So if the counterparties are of  
3     a similar credit to AEP Ohio, then their risk of  
4     payment would be similar.

5           Q.       Okay. And is the risk of AEP Ohio not  
6     paying AEPGR substantial or minor or can you even  
7     assess that at this point?

8           A.       I would just say that it's -- you know,  
9     BBB credit, so it's, you know, it's very good. BBB  
10    credit is generally investment-grade credit, is where  
11    Ohio Power is.

12          Q.       So in the big scheme of things, AEPGR --  
13    excuse me, AEP Ohio is a relatively good credit risk  
14    for AEPGR to enter into a contract with.

15          A.       Absolutely.

16          Q.       And by the same token, is there a  
17    recognition in this proposed debt equity structure  
18    for a reduction in liquidity risk?

19          A.       What do you mean by "liquidity risk"?

20          Q.       Sure. Liquidity risk represents the risk  
21    that imperfections in the market will cause the price  
22    to vary from estimated fair value based on prevailing  
23    market supply and demand conditions. It should sound  
24    familiar. It comes out of your 10-Q.

25          A.       I'm not sure there is liquidity risk. It

1 does -- I mean, you have got the cash flows from this  
2 contract, but, you know, AEP Generation Resources is  
3 still selling power into the market, so I'm not  
4 certain whether it reduces the liquidity risks there  
5 or not.

6 MR. DARR: Can I have that answer back,  
7 please, the last sentence.

8 (Record read.)

9 Q. Under the current situation, AEP  
10 Generation Resources sells into the market, would it  
11 continue with regard to the PPA units to sell the  
12 energy, capacity, and ancillary services into the  
13 market?

14 A. Yes. I mean, but I think maybe you have  
15 to talk to Witness Allen and get the specifics.

16 Q. Okay. And the reason I asked it the way I  
17 did, my understanding of the relationship between AEP  
18 Generation Resources and AEP Ohio was that AEP Ohio  
19 would be the buyer of these resources and then resell  
20 into the PJM market; is that your understanding of  
21 the relationship, created by the PPA agreement?

22 A. I'm sorry. I am not that far into the  
23 details on how it's liquidated into the market.

24 Q. And so your answer with regard to the  
25 liquidation risk that we were talking about a couple

1 of questions ago, that is based on the assumption  
2 that AEP Generation Resources would continue to  
3 liquidate the power attributes into the PJM market or  
4 other bilateral arrangements?

5 A. Yes, it was.

6 MR. DARR: Okay. Nothing further. Thank  
7 you.

8 EXAMINER PARROT: Mr. Yurick.

9 MR. YURICK: Just a few if I might.

10 - - -

11 CROSS-EXAMINATION

12 By Mr. Yurick:

13 Q. Ma'am, good afternoon. What you said  
14 earlier what you were doing in setting the capital  
15 structure and, therefore, the rate of return was to  
16 look at your FERC wholesale contracts; is that right?

17 A. I did say that, yes.

18 Q. And then you were making kind of  
19 adjustments to the average treatment of your FERC  
20 wholesale contracts because this PPA contract is  
21 slightly different; isn't that correct?

22 A. To me it looks really similar to the FERC  
23 wholesale contracts I looked at.

24 Q. So in all of those other contracts, are  
25 there regulatory guarantees that make certain that a



1 party selling power into the market is not going to  
2 lose money on that?

3 A. Most of those contracts are just -- they  
4 are just -- they are -- you know, it's just a fixed  
5 capacity and perhaps energy.

6 Q. Right. So but you're -- those other FERC  
7 wholesale contracts don't include a provision like  
8 the PPA arrangement would, where essentially the  
9 party who's purchasing the power and then reselling  
10 it, never operates at a loss, right, that's not a  
11 feature of your other wholesale contracts?

12 MR. CONWAY: Objection, your Honor.  
13 That's -- it either contains a false premise or a  
14 premise that hasn't been established that the  
15 contract includes such a provision, that there's no  
16 indication from this witness that the contract  
17 includes a provision of the nature Mr. Yurick just  
18 described.

19 EXAMINER PARROT: I am going to ask you to  
20 rephrase, Mr. Yurick.

21 Q. Are you familiar with the PPA arrangement  
22 that's being sought in this case?

23 A. Broadly, yes.

24 Q. Okay. So would you agree with me that in  
25 broad terms what is going to happen here is AEP Ohio

1 is going to purchase capacity, energy, and  
2 ancillaries from AEPGR?

3 A. Yes.

4 Q. Are you aware that AEP Ohio is then asking  
5 the Commission to allow it to sell that generation  
6 into the PJM auction? Are you familiar with that  
7 aspect of it?

8 A. Yes.

9 Q. And are you aware that the application  
10 also asks the Commission to charge AEP Ohio's  
11 distribution customers for any negative difference  
12 between what AEP Ohio pays AEP Generation Resources  
13 for the power and what that costs them?

14 A. It's either a credit or a cost, either  
15 way, depending on what the market prices are.

16 Q. Correct. So, in essence, okay, AEP Ohio  
17 is going to get a guaranteed -- they are not going to  
18 lose money; they are not maybe, conversely, going to  
19 make a great deal of money on power that they  
20 purchase from Generation Resources and then sell into  
21 the PJM.

22 MR. CONWAY: Objection, your Honor. That  
23 also assumes premises that are not established.  
24 There's been no record established anywhere either  
25 through this witness or any other witness that AEP

1 Ohio is absolutely guaranteed to recover all the  
2 costs that it incurs through the contract.

3 EXAMINER PARROT: I will put it to the  
4 witness. I am going to allow this one. Do you need  
5 us to reread it?

6 THE WITNESS: Yes, thank you.

7 MR. CONWAY: Just to be clear before you  
8 reread the question, part of the question to which my  
9 objection is directed is the phrase "they are not  
10 going to lose money." And that's referring to AEP  
11 Ohio. Go ahead and reread the question.

12 (Record read.)

13 A. So what was the question in that?

14 Q. This is so funny. This is great. The  
15 question is: Is that your understanding of the way  
16 the PPA arrangement works, you know, in your  
17 testimony that you submit in this application?

18 EXAMINER PARROT: Mr. Yurick, give her a  
19 chance to answer, please.

20 A. I -- so whether other -- whether Ohio  
21 Power lose or other counterparties lose, I don't know  
22 how that would be. I can tell you that in most FERC  
23 wholesale contracts you enter the contract and you  
24 expect to get paid what was agreed to in the  
25 contract. This is no different than -- you know,

1 from that perspective than the other FERC wholesale  
2 contracts that we've entered into. We have 30 -- you  
3 know, 30 plus of these with a similar methodology  
4 where the capacity, you know, and the charges go  
5 through.

6 Q. And do any of those FERC wholesale  
7 contracts to your knowledge -- and if you don't know,  
8 fine, are they backed by a regulatory guarantee of  
9 your counterparty?

10 MR. CONWAY: Objection. Same objection,  
11 your Honor. It's not been established there is a  
12 regulatory guarantee of recovery by AEP Ohio.  
13 Everybody in this room knows there's going to be  
14 prudence reviews and other -- other audits that are  
15 going to be conducted.

16 EXAMINER PARROT: Overruled.

17 A. So just give me the question again then.

18 MR. YURICK: Could you kindly reread the  
19 question for the witness, please.

20 (Record read.)

21 A. I can't think of any contract that has,  
22 you know, has a guarantee. I can tell you that the  
23 other ones are probably flowing through fuel clauses  
24 so they are having regulatory reviews.

25 Q. Let me ask it this way maybe. You're

1 familiar with the application in this case?

2 A. I am.

3 Q. And the application in this case asks for  
4 approval of a PPA arrangement; is that correct?

5 A. Yes.

6 Q. Are you aware of that there is any other  
7 approved contract in the state of Ohio based on a PPA  
8 at this point, based on a PPA-type arrangement?

9 A. I mean, I am not aware.

10 Q. Okay. So if I were to tell you that there  
11 was not any other currently-standing PPA  
12 arrangement-based contracts in Ohio, then this --  
13 this PPA -- I'm sorry.

14 MR. YURICK: Your Honor, the acoustics  
15 maybe in this room aren't that great. Counsel is  
16 kind of talking among themselves. It's really  
17 distracting. So I would ask the Bench to instruct  
18 counsel to kind of hold off on the comments until I  
19 can get my question out.

20 EXAMINER PARROT: Mr. Yurick, let's just  
21 keep moving, please.

22 Q. If I were to tell you that there is no  
23 approved PPA-based contract in Ohio at this point,  
24 then that would be a way that this PPA contract  
25 differed from all of your other wholesale contracts;

1       isn't that right?

2               MR. CONWAY:  Objection, your Honor.  First  
3       of all, I am not going to permit Mr. Yurick to  
4       testify about what does or does not exist in Ohio in  
5       that regard.  And, secondly, his assertion that it  
6       does exist is flatly wrong.  So I am -- I will not  
7       allow the witness to accept that premise and answer  
8       the question.

9               EXAMINER PARROT:  And I am going to ask  
10      you to rephrase, please, Mr. Yurick.

11         Q.       Let me ask it this way.  So based on your  
12      knowledge, your analysis, this contract that you  
13      evaluated is the same as all of your other wholesale  
14      contracts; is that your testimony?

15         A.       It's pretty similar, yes.

16         Q.       It's -- is it exactly similar?

17         A.       Well, in the other -- in the other  
18      contracts I don't believe we have a fixed capital  
19      structure.  In the other contracts the ceiling for  
20      the ROE was 18 to 20 percent.  Some of them had no  
21      ceilings.  This contract has a ceiling at 15.9  
22      percent.  So it's not exactly the same.

23               We made modifications.  A lot of the  
24      modifications we made were recognizing that it would  
25      be -- there would be additional customer benefits

1 from those modifications. I mean, otherwise, we  
2 could have done it with the actual capital structure  
3 with 70 percent equity. We could have proposed that.

4 MR. YURICK: Exactly. No further  
5 questions.

6 EXAMINER PARROT: Ms. Cohn.

7 MS. COHN: Yes, your Honor.

8 - - -

9 CROSS-EXAMINATION

10 By Ms. Cohn:

11 Q. You propose an ROE floor of 8.9 percent  
12 and an ROE ceiling of 15.9 percent?

13 A. That's right.

14 Q. Are those after-tax numbers?

15 A. Yes.

16 Q. Okay. Do you know what the pretax ROE  
17 floor would be?

18 A. No such thing. I mean you have to pay  
19 your taxes.

20 Q. Fair.

21 A. So that's the after-tax.

22 Q. What about the pretax ROE ceiling?

23 MR. CONWAY: Objection. Would Counsel  
24 please allow the witness to answer before her next  
25 question.

1 MS. COHN: Yes.

2 Q. Go ahead.

3 A. So the return on equity would be after  
4 taxes are paid.

5 Q. And what would the ROE ceiling be on a  
6 pretax basis?

7 A. There is no such thing.

8 Q. As an ROE ceiling?

9 A. As a -- I mean you have to pay your taxes.  
10 It's an after tax ROE.

11 Q. Okay. So AEP could earn an ROE of up to  
12 15.9 percent after tax even if the PPA charge to  
13 customers was very high.

14 MR. CONWAY: Objection to the  
15 characterization of "very high." It's ambiguous.

16 Q. Okay. Much higher than projected.

17 A. So if the return on -- if interest rates  
18 go up and our costs of -- have gone up, then the cost  
19 of equity would probably go up as well. That's what  
20 the floating return on equity rate recognizes.

21 Q. Right. So AEP, under this floating return  
22 on equity proposal, AEPGR could earn a -- an  
23 after-tax ROE of up to 15.9 percent regardless of how  
24 high the PPA rider charge is for customers, correct?

25 A. They could and their costs could also be



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1 higher than that, but the cost of return on equity is  
2 capped.

3 Q. Okay. So if the charge was much higher  
4 than projected, AEPGR would still be -- would be able  
5 to recover up to a 15.9 percent ROE?

6 A. I have no idea. What I can tell you is if  
7 the interest rates are higher, the return on equity  
8 would be higher.

9 MS. COHN: All right. No further  
10 questions.

11 EXAMINER PARROT: Mr. Dougherty.

12 MR. DOUGHERTY: No questions, your Honor.

13 EXAMINER PARROT: Ms. Fleisher.

14 MS. FLEISHER: No questions, your Honor.

15 EXAMINER PARROT: Mr. Settineri.

16 MR. SETTINERI: Just a few questions, your  
17 Honor.

18 - - -

19 CROSS-EXAMINATION

20 By Mr. Settineri:

21 Q. Good afternoon. My name is Mike  
22 Settineri. I represent certain clients including the  
23 Retail Energy Supply Association. How are you this  
24 afternoon?

25 A. Good afternoon.

1           Q.       I just want to start first at page 3 of  
2           your testimony, lines 19 to 21, where you talk about  
3           the purpose of your testimony. Do you have that in  
4           front of you?

5           A.       I do.

6           Q.       All right. I believe you mentioned in  
7           response to a question that you are broadly aware of  
8           the PPA arrangement, correct?

9           A.       Correct.

10          Q.       Now, are you aware that there is a capital  
11          payment to be made under that PPA from Ohio Power to  
12          AEP Generation Resources that would be a monthly  
13          capital payment as it's termed?

14          A.       But isn't that just the fixed capacity  
15          payment?

16          Q.       If you need to refresh, that would be  
17          fine.

18          A.       I don't know what the payment arrangements  
19          are under the PPA. I don't know if they are monthly  
20          or how.

21          Q.       Assume it's monthly for me. If I told you  
22          that the monthly capital payment consisted of the net  
23          book value of the PPA units times a cost of capital,  
24          are you familiar with that?

25          A.       Yeah, that's what I would expect.

1 Q. Okay. And the cost of capital in that  
2 formula, what is the formula to calculate the cost of  
3 capital? And I am looking for the exact formula  
4 here.

5 A. So if you look at the unit power -- the  
6 purchase power agreement itself, it was included --  
7 which is Sierra Club Exhibit 2, it was included on  
8 page 14 and 15 where it says the exact formula.

9 Q. And if you don't mind since I don't have a  
10 copy in front of me, could you read that formula for  
11 me, please?

12 A. It's fair and net book -- seller's net  
13 book value of facilities times the weighted average  
14 cost to capital which is the debt cost times the debt  
15 rate plus the equity cost times the -- the equity is  
16 a percentage times the ROE.

17 Q. Okay. So that capital payment based on  
18 the formula you just went through for cost of capital  
19 times the net book value, would you agree with me  
20 that the capital payment under PPA represents the  
21 guaranteed net income payment to AEP Generation  
22 Resources?

23 A. I think it's a contractual term. You  
24 know, I don't know what "guaranteed" means but it's a  
25 contractual term in the purchase power agreement.

1 Q. Okay. If it receives that payment every  
2 month, would you agree with me that then it would be  
3 guaranteed?

4 A. No. Again, it's the contract term to have  
5 a payment made every month. But, you know, it's  
6 contract terms.

7 Q. You don't believe that's a guaranteed  
8 payment.

9 A. I think it's a required payment.

10 Q. And if it's required, would AEP Generation  
11 look at it as a guaranteed payment, correct?

12 A. No. I think it's a required payment.

13 Q. Then to the second part of my question I  
14 posed, you would agree with me, though, that capital  
15 payment would be a replacement for net income for AEP  
16 Generation Resources, correct?

17 A. It would be a component of their net  
18 income.

19 Q. And as of today, AEP Generation is not  
20 getting that capital payment, correct?

21 A. No. They don't have this contract right  
22 now, correct.

23 Q. And their net income today as to the PPA  
24 units would not reflect that payment as well,  
25 correct?

1           A.       Can you say that again?

2                   MR. SETTINERI: Go ahead and read the  
3 question, please, if you don't mind.

4                   (Record read.)

5           A.       That would be correct.

6                   MR. SETTINERI: Thank you. No further  
7 questions. Thank you.

8                   EXAMINER PARROT: Mr. Beeler.

9                   MR. BEELER: Nothing, your Honor. Thank  
10 you.

11                   EXAMINER PARROT: Any redirect,  
12 Mr. Conway?

13                   MR. CONWAY: Can we take a minute?

14                   EXAMINER PARROT: Take a few minutes.

15                   (Off the record.)

16                   EXAMINER PARROT: Mr. Conway, redirect.

17                   MR. CONWAY: Thank you, your Honor. The  
18 company has no redirect for Ms. Hawkins.

19                   At this time the company again moves for  
20 the admission of Exhibit No. 8.

21                   EXAMINER PARROT: Are there any objections  
22 to the admission of AEP Exhibit No. 8?

23                   Hearing none, it is admitted into the  
24 record.

25                   (EXHIBIT ADMITTED INTO EVIDENCE.)

1 Thank you very much, Ms. Hawkins.

2 THE WITNESS: Thank you.

3 EXAMINER SEE: AEP, would you like to call  
4 your next witness?

5 MR. McKENZIE: Your Honor, my name is  
6 Matthew McKenzie, on behalf AEP Ohio. We would call  
7 Mr. Thomas Mitchell.

8 (Witness sworn.)

9 EXAMINER SEE: Have a seat.

10 Go ahead, Mr. McKenzie.

11 - - -

12 THOMAS E. MITCHELL

13 being first duly sworn, as prescribed by law, was  
14 examined and testified as follows:

15 DIRECT EXAMINATION

16 By Mr. McKenzie:

17 Q. Mr. Mitchell, could you please state your  
18 name and business address for the record.

19 A. Yes. Thomas E. Mitchell, 1 Riverside  
20 Plaza, Columbus, Ohio 43215.

21 Q. And who is your employer and what is your  
22 position?

23 A. American Electric Power Service Corp.  
24 Managing Director of Regulatory Accounting Services.

25 Q. Did you have testimony filed in this

1 docket that was prepared by you or at your direction?

2 A. Yes, sir.

3 Q. And, Mr. Mitchell, I placed before you a  
4 document that I have marked AEP Ohio Exhibit 9.

5 MR. McKENZIE: And I would like that  
6 marked for the record, your Honor.

7 EXAMINER SEE: Yes.

8 (EXHIBIT MARKED FOR IDENTIFICATION.)

9 Q. Mr. Mitchell, is AEP Ohio Exhibit 9 your  
10 testimony filed in this case on May 15, 2015?

11 A. Yes, sir.

12 Q. Do you have any changes to your testimony?

13 A. No, sir.

14 Q. If I were to ask you today the same  
15 question in AEP Ohio Exhibit 9 would your answers be  
16 the same?

17 A. Yes, sir.

18 Q. And are your answers true and correct to  
19 the best of your knowledge and belief?

20 A. Absolutely.

21 MR. McKENZIE: Your Honor, I would move  
22 for admission of AEP Ohio Exhibit 9 and tender the  
23 witness for cross-examination.

24 EXAMINER SEE: Okay. Mr. Fisk?

25 MR. FISK: No questions, your Honor.

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1 EXAMINER SEE: Ms. Bojko?

2 MS. BOJKO: Yes, I do have questions, your  
3 Honor.

4 I'm sorry. Has this been marked as  
5 Exhibit 9?

6 EXAMINER SEE: Yes, it has.

7 MS. BOJKO: Thank you.

8 - - -

9 CROSS-EXAMINATION

10 By Ms. Bojko:

11 Q. Good afternoon, Mr. Mitchell.

12 A. How are you, Ms. Bojko?

13 Q. It's your understanding, sir, that the  
14 rider will be set at a rate based on projected charge  
15 or credit resulting from the net of the costs of the  
16 plants per the PPA credit versus the revenues from  
17 the sale of the output into the PJM markets; is that  
18 correct?

19 A. I think the current rider is at zero in  
20 the rider, I believe. Refer you to Witness Allen  
21 probably.

22 Q. No. Okay. First of all, could I ask you  
23 to speak up a little bit? I am having trouble  
24 hearing you.

25 A. Okay.



1           Q.       It's my understanding that the -- that if  
2       the company's application is approved, then the rider  
3       amount will be set at a rate based on the projected  
4       charge or credit resulting from the net of the costs  
5       of the plants per the purchase power agreement  
6       contract versus the revenues from the sales of the  
7       output of the plants in the PJM markets; is that  
8       correct?

9           A.       I think you are referring to the long-term  
10       approach. In the interim there is a zero rider that  
11       the Commission has approved.

12          Q.       Right. And that's your understanding of  
13       how the rider would be established if the Commission  
14       does approve collection of costs associated with the  
15       PPA rider or PPA contract through the rider.

16          A.       Right. The rider will be the difference  
17       between the sales price and the cost.

18          Q.       Okay.

19          A.       Assuming no disallowance for prudence.

20          Q.       And let's turn to page 4 of your  
21       testimony, please, line 12.

22          A.       Line what now?

23          Q.       12.

24          A.       12.

25          Q.       And line 12 you state that there will be

1 no carrying costs on the over- or underrecovery of  
2 the actual net costs or revenues in the rider; is  
3 that correct?

4 A. That is correct.

5 Q. And you say that this rider will be  
6 reconciled on a short-term period basis. Do you see  
7 that?

8 A. Yes.

9 Q. And here you are referring to the annual  
10 reconciliation proposed in the application; is that  
11 correct?

12 A. I am referring to the reconciliation  
13 process. I think Mr. Allen indicates it could be  
14 annual. It could be quarterly at the Commission's  
15 purview.

16 Q. And right now the proposal from the  
17 company is to be an annual reconciliation; is that  
18 correct?

19 A. I am not positive.

20 Q. Let's turn to the top of page 4 of your  
21 testimony, line 1 and 2. Here you state that this  
22 approach would result in no margin to Ohio Power  
23 Company. Do you see that?

24 A. Yes.

25 Q. And isn't it true that the costs paid to

1 AEP Generation contains a margin for AEP Generation?

2 A. The term "margin" means that AEP Ohio's  
3 income statement will be neutral assuming that there  
4 is no disallowances, whatever it compared the costs  
5 to the sales, and so there's no profit because it  
6 puts the difference in a reg asset or reg liability.

7 Q. And but there is a profit built into the  
8 costs associated with the PPA contract for AEP  
9 Generation; isn't that true?

10 A. There is equity margin as the previous  
11 witness testified, yes.

12 Q. And on page 5, line 3 of your testimony,  
13 this is where you were talking about the reg asset or  
14 liability that you just discussed. What period are  
15 you amortizing the reg asset or liability over?

16 A. There's really not a period. We are just  
17 comparing the revenues to whatever is on the  
18 difference and then you do over-/under-accounting so  
19 it just basically trues itself up.

20 Q. Okay. And following that question and  
21 answer, you're not suggesting on page 5, line 8 and  
22 9, that AEPGR subsidiary will maintain the regulatory  
23 assets or liability on their books, are you?

24 A. No. The reg asset -- regular liability  
25 will be on the books of AEP Ohio which is regulated.

1 MS. BOJKO: Your Honor, at this time may I  
2 have marked as OMAEG Exhibit 10, AEP's response to  
3 OEG Interrogatory 3-009.

4 EXAMINER SEE: So marked.

5 (EXHIBIT MARKED FOR IDENTIFICATION.)

6 Q. Sir, do you have in front of you what's  
7 been marked as OMAEG Exhibit 10?

8 A. Yes.

9 Q. And does this purport to be AEP's response  
10 to OEG-3-009?

11 A. Yes.

12 Q. And you are the responsible witness for  
13 this response; is that correct?

14 A. Yes.

15 Q. The newly-formed AEPGR subsidiary will be  
16 considered an unregulated entity pursuant to GAAP; is  
17 that correct?

18 A. Yes.

19 Q. And that's true even though all of the  
20 assets or percent share of assets will receive  
21 cost-based rate of return treatment; is that correct?

22 A. Yes.

23 Q. And that's what you explain in  
24 Interrogatory 3-009?

25 A. Yes. There's also a further one where we

1       were a little bit more specific.

2           Q.       A further discovery response?

3           A.       Yes.

4           Q.       Is what you are referencing?

5           A.       Yes.

6                   MS. BOJKO:  That's all I have.  Thank you,  
7       Mr. Mitchell.

8                   THE WITNESS:  Thank you.

9                   EXAMINER SEE:  Mr. Moore?

10                  MR. MOORE:  Yes, thank you, your Honor.  
11       Just a couple of questions.

12                               - - -

13                               CROSS-EXAMINATION

14       By Mr. Moore:

15           Q.       Good afternoon, Mr. Mitchell.  My name is  
16       Kevin Moore.  I represent the Ohio Consumers'  
17       Counsel.

18           A.       Good afternoon.

19           Q.       You just testified that the accounting  
20       authority you are seeking authority for is for  
21       over-/underrecovery true-up accounting; is that  
22       correct?

23           A.       Yes, sir.

24           Q.       In order to record regulatory liabilities  
25       or regulatory assets and perform a regulatory

1 deferral over-/underrecovery true-up accounting, it  
2 must be probable that the regulatory liability will  
3 be refunded or that the regulatory asset will be  
4 refunded in the future; is that right?

5 A. Yes.

6 Q. And any final order in this proceeding  
7 should be able to provide for that probability; is  
8 that right?

9 A. Could you say that one more time?

10 Q. I said any final order in this proceeding  
11 must clearly provide for that probability, correct?

12 A. I think the order addresses that any  
13 difference is a -- is what goes into the tariff and  
14 it's that -- that sort of statement that gives rise  
15 to the probability. I don't think the Commission  
16 will use the words probable one way or the other, but  
17 it's that the difference is in the tariff subject to  
18 prudence.

19 Q. And the difference you are referring to is  
20 the difference between incurred expenses and actual  
21 revenues collected; is that right?

22 A. Revenues from the -- from the sales  
23 market, right.

24 Q. And in AEP's Ohio ESP III proceeding, I  
25 think you might have testified to this earlier, the

1711

1 Commission approved a PPA rider set at zero, correct?

2 A. Yes.

3 Q. So could you explain how this -- the  
4 accounting authority provided for in the AEP ESP III  
5 proceeding is different than what you are requesting  
6 here?

7 A. When we are not requesting any difference.  
8 We were just here to, I guess, ensure that all the  
9 parties understand that this regulatory asset,  
10 regulatory liability, the difference between the cost  
11 and the sales proceeds subject to prudence is what  
12 goes into the tariff. We just basically want to  
13 clear the record that we do have a reg asset/reg  
14 liability on AEP, not on AGR, and it's basically  
15 receivable or payable back to retail ratepayers.

16 Q. Thank you. Mr. Mitchell, have you  
17 testified in ESP cases regarding deferral authority?

18 A. Yes.

19 Q. Are deferred costs included in ESP's --  
20 ESP v. MRO test?

21 A. Could you clarify that question?

22 Q. What about it don't you understand?

23 A. What do you mean deferred -- by deferred  
24 costs?

25 Q. I mean, the costs you are currently asking

1 the accounting authority to defer. You are asking  
2 for over-/under-accounting authority, correct? I am  
3 asking if those costs are usually included in the ESP  
4 v. MRO test?

5 A. I would submit myself as not an MRO  
6 expert. Probably Witness Allen could probably answer  
7 that question. But currently, as I understand it,  
8 our current ESP was approved, ESP III, instead of an  
9 MRO test. In other words, it survived the MRO test.  
10 I'm not sure what the context of your question is  
11 because I am not sure it's relevant to current ESP.

12 Q. So your answer would be "I don't know"; is  
13 that correct?

14 A. Yeah. I am not familiar with that.

15 Q. On page 5 of your testimony, lines 5  
16 through 7, you talk about a separate accounting  
17 structure. Could you just explain what you mean by  
18 separate accounting structure.

19 A. All we are saying is that we are going to  
20 establish separate subsidiaries of AGR to kind of  
21 house these particular units and costs and  
22 liabilities, and so we are going to segregate the  
23 plants that are subject to the PPA. And that's  
24 really all we mean. This is going to be a subsidiary  
25 of AGR. It's just going to be isolated and separated



1 kind of like Witness Hawkins was talking about.

2 MR. MOORE: I have no further questions,  
3 your Honor. Thank you, Mr. Thomas -- Mr. Mitchell.

4 EXAMINER SEE: Mr. Olikar?

5 MR. OLIKER: No questions, your Honor.

6 EXAMINER SEE: Mr. Darr?

7 MR. DARR: Thank you, your Honor.

8 - - -

9 CROSS-EXAMINATION

10 By Mr. Darr:

11 Q. In response to a question from counsel for  
12 OCC you referred to "AGR." I assume that you mean  
13 AEP Generation Resources; is that correct?

14 A. Yes.

15 Q. In your testimony you mentioned, and I  
16 think you confirmed with counsel for OMA Energy Group  
17 that AEPGR is currently not -- or is treated as  
18 unregulated in accordance with ASC 980, correct?

19 A. Yes, sir.

20 Q. And is it fair to say that at least at  
21 this point AEPGR has not recognized that any of the  
22 purchase power agreement units is impaired, is that  
23 correct, for accounting purposes?

24 A. That's correct.

25 Q. And by an impairment we mean that the

1       asset is one that is worth less in the market than  
2       the value on the company's balance sheet, correct?

3           A.       I would say yes, as long as you are within  
4       the confines of the accounting rules.

5           Q.       And the accounting rules for determining  
6       whether or not an asset is impaired is whether or not  
7       the undiscounted cash flows from the asset including  
8       the sale amount are less than the asset's carrying  
9       value; is that correct?

10          A.       Could you kindly repeat that.

11          Q.       Let me repeat it for you. To determine  
12       whether or not an asset is impaired, you look at  
13       whether or not the undiscounted cash flows from the  
14       asset including the sale amount are less than the  
15       asset's carrying amount.

16          A.       Yes. That is the first step.

17          Q.       And could you define for us what the  
18       second transmission expansion plan is.

19          A.       The second step is if you are in a  
20       negative position, you simply then go determine what  
21       the fair value of the assets is to determine the  
22       amount of the impairment.

23          Q.       And how would you go about determining the  
24       fair value of the asset or assets?

25          A.       There's a number of ways. You can get

1 market quotes. You can look for similar -- similar  
2 transactions. You can use present values of  
3 discounted cash flows. There is a variety of ways.

4 Q. And to the extent that there is a  
5 difference between the market value and the net book  
6 value of that asset, the impairment loss is measured  
7 by subtracting the asset's fair value from its  
8 carrying value; is that correct?

9 A. Yes, again under the accounting confines.

10 Q. And the carrying value is the cost minus  
11 any accumulated depreciation?

12 A. Yes.

13 Q. And then any impairment that is found will  
14 be expensed on the company's income statement; is  
15 that correct?

16 A. Yes.

17 Q. I believe that AEP Ohio performed an  
18 evaluation of whether or not the assets that we are  
19 talking about here were impaired in 2012; is that  
20 correct?

21 A. Yes.

22 Q. And at that time the units proposed to be  
23 included in the PPA rider were determined to be  
24 recoverable and not impaired; is that correct?

25 A. Yes.

1           Q.       And since AEP Generation Resources has  
2 taken over these assets as a result of the  
3 divestiture in 2014, am I also correct that AEP --  
4 AEP Generation has not conducted an impairment  
5 analysis?

6           A.       That is correct. To conduct an analysis  
7 you have to have a triggering event, and we have not  
8 had such an event.

9           Q.       And there was -- because the assets were  
10 transferred at net book value, there was no good will  
11 associated with the assets, correct?

12          A.       Yes, sir, right.

13          Q.       And because there was no good will, there  
14 is no requirement that you do an annual impairment  
15 analysis, correct?

16          A.       That's correct.

17          Q.       If there were, you would be required to do  
18 so.

19          A.       You would have to test your good will.

20          Q.       The assets that are held by AEPGR are  
21 reported on a segment basis; is that correct? Let me  
22 rephrase that.

23                   The accounting for regulatory and SEC  
24 purposes is done on a segment basis; is that correct?

25          A.       I am not sure if I am answering your

1 question; but, I mean, we have different segments.  
2 You know, if you are an SEC registrant, you have  
3 different segments, and the AEPGR is in a segment  
4 called generation and marketing. AEP Ohio is a  
5 transmission and distribution utility segment.

6 Q. And for purposes of SEC accounting, the  
7 segment is identified as a reporting unit; is that  
8 correct?

9 A. Yes.

10 Q. If I said that incorrectly, please  
11 clarify.

12 A. Yeah. I mean, we -- besides just  
13 reporting to those segments, we also report by  
14 individual companies if they are registrants, SEC  
15 registrants, so we have Ohio Power, Appalachian  
16 Power, things like that. We also report segment  
17 income required disclosures on assets and so forth.

18 Q. Is AEP Generation Resources a reporting  
19 entity for purposes of SEC requirements?

20 A. Is it a separate --

21 Q. Like Ohio Power, is it a separate  
22 reporting entity?

23 A. AEPGR you are asking?

24 Q. Yes.

25 A. No.

1           Q.       And is it fair to say that with regard to  
2       the segment generation and marketing, or generating  
3       and marketing I think is the way it's referred, that  
4       the -- that that segment has positive earnings as  
5       reported in the second quarter of 2015 of  
6       \$82 million.

7           A.       I don't recall the amount, but it's  
8       certainly positive.

9           Q.       Would the SEC statement help refresh your  
10      recollection?

11          A.       Sure.

12                 MR. DARR: May I approach, your Honor?

13                 EXAMINER SEE: Yes.

14          Q.       If you could take a look at that and  
15      review it to yourself, please, sir.

16          A.       Okay.

17          Q.       And does that help refresh your  
18      recollection?

19          A.       Yes, it is possible.

20          Q.       And did the company report an earnings for  
21      the second quarter of 2015 of \$82 million? Did the  
22      segment report that?

23          A.       Yes.

24          Q.       And am I also correct that for the first  
25      six months of 2015, the segment reported earnings of

1       \$269 million?

2           A.       I don't have that number in my memory.

3           Q.       If you turn the page over.

4           A.       Okay.

5           Q.       Would you see whether or not that  
6 refreshes your recollection?

7           A.       Yes, that is the right number. Thank you.

8           Q.       And for the first quarter -- excuse me,  
9 for the second quarter of 2015, there was a reduction  
10 in earnings from the prior second quarter of 2014; is  
11 that correct?

12          A.       You were speaking of previously 98, now  
13 82?

14          Q.       Yes.

15          A.       Yes, sir.

16          Q.       And that was due in part to a reduction in  
17 generation revenues that were being received from AEP  
18 Ohio, correct?

19          A.       Yes.

20          Q.       But that was offset by a reduction in  
21 expenses incurred by that segment, correct?

22          A.       Yes, sir. Partially offset, right.

23          Q.       And with regard to the first six months of  
24 2015 versus the first six months of 2014, there was,  
25 in fact, an increase in earnings year to year,

1 correct?

2 A. Yes, sir.

3 Q. And the explanation associated with that  
4 was a -- let me see -- I want to make sure I phrase  
5 this correctly. And the decrease in generation  
6 revenues from AEP Ohio, that was partially offset by  
7 an increase in revenues as a result of wholesale  
8 trading and marketing performance, correct?

9 A. Right. That was a similar phenomenon to  
10 the first quarter as well.

11 Q. And, additionally, there was an increase  
12 in retail volumes within the segment, correct?

13 A. Yes.

14 Q. And over that period expenses declined,  
15 correct?

16 A. Yes, sir.

17 Q. Depreciation expense declined?

18 A. Yeah, a little bit, yes.

19 Q. And so did income tax -- or taxes other  
20 than income taxes, correct?

21 A. Yes. Compared to the prior year, of  
22 course.

23 Q. If you know the answer, I know this is a  
24 little outside the scope of your initial testimony,  
25 but are you familiar with the fact that this



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1 segment -- excuse me, the generation of AEP enters  
2 into hedging arrangements for such things as power  
3 and fuel?

4 A. Yeah. I mean, I'm familiar with that. I  
5 don't have any working relationship with that,  
6 though.

7 Q. I just want to explore this a little bit,  
8 but is it fair to say that AEP Generation -- AEP and  
9 we are talking about the -- in particular the  
10 generation function of AEP through its various units,  
11 does this to attempt to manage both credit and  
12 liquidity risk.

13 MR. McKENZIE: Objection, your Honor. We  
14 are now far afield from his testimony. He just  
15 testified he doesn't have familiarity with this  
16 testimony.

17 MR. DARR: Your Honor, I think he actually  
18 said exactly the opposite, your Honor.

19 EXAMINER SEE: And I'll allow the  
20 question.

21 A. Could you repeat that.

22 Q. Sure. Is it fair to say that AEP through  
23 its various subsidiaries enters into hedging  
24 arrangements to hedge the commodity risk or credit  
25 risk and liquidity risk associated with the sale of

1 power in the markets?

2 A. I would answer I don't know all the  
3 reasons they enter into hedges.

4 Q. Would that -- would the reasons I just  
5 suggested be reasonable why AEP -- that you are aware  
6 of that AEP enters into hedging arrangements?

7 A. I am not sure.

8 MR. DARR: Fair enough. Thank you.  
9 That's all I have.

10 EXAMINER SEE: Thank you.

11 Mr. Yurick.

12 - - -

13 CROSS-EXAMINATION

14 By Mr. Yurick:

15 Q. Sir, on page 5 of your testimony, lines 7  
16 through 9, you testify about a separate accounting  
17 structure for the PPA units?

18 A. Yes.

19 Q. Do you have separate accounting structures  
20 or separate accounting treatment for all FERC  
21 wholesale contracts that you enter into?

22 A. No.

23 MR. YURICK: Thank you.

24 EXAMINER SEE: Ms. Cohn?

25 MS. COHN: No questions, your Honor.

1 EXAMINER SEE: Mr. Dougherty?

2 MR. DOUGHERTY: No questions.

3 EXAMINER SEE: Ms. Fleisher?

4 MS. FLEISHER: No questions, your Honor.

5 EXAMINER SEE: Ms. Mooney?

6 MS. MOONEY: No questions, your Honor.

7 EXAMINER SEE: Ms. Petrucci?

8 MS. PETRUCCI: No questions.

9 EXAMINER SEE: Mr. Beeler?

10 MR. BEELER: Nothing, your Honor.

11 EXAMINER SEE: Any redirect for this  
12 witness, Mr. McKenzie?

13 MR. MCKENZIE: No, your Honor.

14 EXAMINER SEE: Thank you, Mr. Mitchell.  
15 You may step down.

16 THE WITNESS: Thank you.

17 EXAMINER SEE: Mr. McKenzie I believe  
18 already moved for the admission of AEP Ohio Exhibit  
19 8, the direct -- I'm sorry, Exhibit 9 the direct  
20 testimony of Thomas Mitchell. Are there any  
21 objections?

22 Hearing none, AEP Exhibit 9 is admitted  
23 into the record.

24 (EXHIBIT ADMITTED INTO EVIDENCE.)

25 EXAMINER SEE: Ms. Bojko.

1724

1 MS. BOJKO: Yes, thank you, your Honor.

2 At this time I would move for the admission of OMAEG  
3 Exhibit 10.

4 EXAMINER SEE: Are there any objections to  
5 OMAEG Exhibit 10?

6 MR. MCKENZIE: No, your Honor.

7 EXAMINER SEE: OMAEG Exhibit 10 is  
8 admitted into the record.

9 (EXHIBIT ADMITTED INTO EVIDENCE.)

10 EXAMINER SEE: With that we are going to  
11 conclude for the day and pick up with Mr. Allen  
12 tomorrow morning.

13 (Thereupon, at 3:11 p.m., the hearing was  
14 adjourned.)

15 - - -

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CERTIFICATE

I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Monday, October 5, 2015, and carefully compared with my original stenographic notes.

Karen Sue Gibson, Registered  
Merit Reporter

My commission expires August 14, 2020.

Carolyn M. Burke, Registered  
Professional Reporter

My commission expires July 17, 2018.

(KSG-6098)

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Summary: Transcript In the Matter of the application of Ohio Power Company hearing held on 10/05/15 - Volume VI electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.