

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 9:00 a.m. on Thursday, October 1,
2015.

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VOLUME IV

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1 Thursday Morning Session,

2 October 1, 2015.

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4 EXAMINER PARROT: This is the
5 continuation of the hearing in Case No.
6 14-1693-EL-RDR, et al. I'm Sarah Parrot, this is
7 Greta See with me on the Bench.

8 Good morning, everyone. Let's take brief
9 appearances, names only, and the party on whose
10 behalf you are appearing today, please.

11 MR. NOURSE: Thank you, your Honor. On
12 behalf of Ohio Power Company, Steven T. Nourse,
13 Matthew J. Satterwhite, Matthew S. McKenzie, Daniel
14 R. Conway, and Chris L. Miller.

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

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

19 MR. BEELER: Good morning. On behalf of
20 the staff of the Commission, Steven Beeler and Werner
21 Margard.

22 MS. BAIR: Good morning. On behalf of
23 the Office of Consumers' Counsel, Jodi Bair, William
24 Michael, Kevin Moore, and Dane Stinson.

25 MS. GHILONI: On behalf of the Ohio

1 Manufacturers' Association Energy Group, Danielle
2 Ghiloni and Kim Bojko.

3 MS. HENRY: On behalf of Sierra Club,
4 Kristin Henry and Shannon Fisk.

5 MR. CASTO: On behalf of FirstEnergy
6 Solutions Corp., Scott Casto.

7 MS. PETRUCCI: Good morning. On behalf
8 of the Retail Energy Supply Association, PJM Power
9 Providers Group, the Electric Power Supply
10 Association, Constellation NewEnergy, and Exelon
11 Generation, M. Howard Petricoff, Michael Settineri,
12 and Gretchen Petrucci. And did I say RESA? No.
13 Retail Energy Supply Association too.

14 MS. FLEISHER: Good morning, your Honors.
15 Madeline Fleisher and Justin Vickers on behalf of the
16 Ohio Environmental Law & Policy Center.

17 MR. K. BOEHM: Good morning, your Honor.
18 On behalf of the Ohio Energy Group, Kurt Boehm, Mike
19 Kurtz, and Jody Cohn.

20 EXAMINER PARROT: Anyone else? I think
21 that accounts for everyone in the room.

22 Mr. Satterwhite, I will turn it over to
23 you.

24 MR. SATTERWHITE: Thank you, your Honor.
25 We will call Mr. John McManus to the stand, the next

1 AEP Ohio company witness.

2 EXAMINER PARROT: Mr. McManus, please
3 raise your right hand.

4 (Witness sworn.)

5 EXAMINER PARROT: Please have a seat.

6 MR. SATTERWHITE: May I proceed?

7 EXAMINER PARROT: You may.

8 (EXHIBIT MARKED FOR IDENTIFICATION.)

9 - - -

10 JOHN M. MCMANUS

11 being first duly sworn, as prescribed by law, was
12 examined and testified as follows:

13 DIRECT EXAMINATION

14 By Mr. Satterwhite:

15 Q. Mr. McManus, can you please state your
16 name and business address for the record.

17 A. John McManus, American Electric Power
18 Service Corporation, 1 Riverside Plaza, Columbus,
19 Ohio.

20 Q. And did you have testimony filed in this
21 docket prepared at your direction on May 15th,
22 2015?

23 A. Yes, I did.

24 MR. SATTERWHITE: May I approach, your
25 Honor?

1 EXAMINER PARROT: You may.

2 Q. I'm placing in front of you what I marked
3 and previously provided to the court reporter a copy
4 of AEP Exhibit No. 4, the direct testimony of John M.
5 McManus. Can you identify this document for us,
6 please.

7 A. Yes. It is my testimony.

8 Q. And was this testimony provided by you or
9 under your direction?

10 A. Yes, it was.

11 Q. And aside from some changes and some
12 environmental regulations do you have any changes or
13 updates to this testimony today?

14 A. I have two very minor corrections.

15 Q. Could you give us those, page number and
16 line, please.

17 A. On page 8, line 13, the word "as" in that
18 line should be "ash." And on page 9, line 10, the
19 word "both" should be "these."

20 MR. SATTERWHITE: Everybody get that?

21 Q. And with those changes and corrections
22 with the aside we talked about earlier, do you adopt
23 this testimony as your testimony in this case today?

24 A. Yes, I do.

25 MR. SATTERWHITE: Your Honor, before

1 tendering the witness for cross-examination I'd just
2 like to point out that due to the code of conduct of
3 AEP Ohio, Witness Thomas, who comes later, is unable
4 to view confidential information dealing with the
5 OVEC units so I wanted to give parties the
6 opportunity, if they have any questions on those, to
7 ask Mr. McManus those so they could ask those
8 questions. We just want to make sure we're honoring
9 the code of conduct.

10 With that I'd move for the admission of
11 AEP Ohio Exhibit 4 and tender the witness for
12 cross-examination.

13 EXAMINER PARROT: Thank you,
14 Mr. Satterwhite.

15 MS. FLEISHER: Your Honor, there is one
16 quick thing regarding that. I just wanted to make
17 sure we all reserved the rights to the extent we
18 don't happen to have any OVEC confidential exhibits
19 today that we want Mr. McManus to look at, that there
20 would be some accommodation for how to deal with
21 that, just if that issue comes up. I don't know.

22 MR. SATTERWHITE: Well, Mr. McManus is
23 leaving town, that's why we have him on today, and
24 Thomas was supposed to be on today anyway. And
25 Mr. McManus states in his testimony that Mr. Thomas

1 is talking about the PPA units, so I'm not sure we'd
2 make an accommodation to bring Mr. McManus back up.

3 MS. FLEISHER: Well, why don't we burn
4 that bridge if we come to it.

5 EXAMINER PARROT: Ms. Henry.

6 MS. HENRY: I'm ready. Thank you, your
7 Honor.

8 - - -

9 CROSS-EXAMINATION

10 By Ms. Henry:

11 Q. Good morning, Mr. McManus.

12 A. Good morning.

13 Q. I'm Kristin Henry. I represent Sierra
14 Club.

15 So is it okay if I define a few terms
16 before we start today?

17 A. Yes.

18 Q. If I refer to the applicants in this
19 proceeding, Ohio Power Company, as AEP Ohio, will you
20 understand what I mean?

21 A. Yes.

22 Q. And if I refer to AEP Generation
23 Resources as AEP Generation, will you understand what
24 I mean?

25 A. Yes.

1 Q. And if I refer to American Electric Power
2 Service Corporation as American Electric -- as AEP
3 Service Corp., will you understand what I mean?

4 A. Yes.

5 Q. Okay. And if I refer to American
6 Electric Power, the parent company, just as AEP, will
7 you understand what I'm referring to?

8 A. Yes.

9 Q. So you have a general familiarity with
10 the proposed purchased power agreement between
11 AEP Ohio and AEP Generation; is that correct?

12 A. A general sense, yes.

13 Q. And you have a general familiarity with
14 AEP Ohio's proposal to include the net impacts of the
15 affiliate PPA and the OVEC intercompany power
16 agreement into the PPA rider, correct?

17 A. In a very general way.

18 Q. In a very general way.

19 And you understand that the proposed PPA
20 rider would cover Cardinal unit 1; Conesville units
21 4, 5, and 6; Stuart's units 1 through 4; Zimmer unit
22 1; Clifty Creek units 1 through 6; and Kyger Creek
23 units 1 through 5, correct?

24 A. Yes.

25 Q. And if I refer to these units

1 collectively as the PPA rider units, would that be
2 okay with you?

3 A. Yes.

4 Q. And you know the proposed power -- the
5 proposed PPA would run through the life of the units,
6 correct?

7 A. Yes.

8 Q. Now, you don't know exactly how much
9 longer each unit is expected to run, correct?

10 A. I do not.

11 Q. The purpose of your testimony is to
12 discuss various environmental regulations that are
13 likely to affect the PPA rider units, correct? And
14 I'll refer you to your testimony, page 2, line 22,
15 and then it goes on to page 2, line 1 [verbatim].
16 And I can --

17 A. If you could repeat that.

18 Q. Sure. The purpose of your testimony is
19 to discuss various environmental regulations that are
20 likely to affect the PPA rider units, correct?

21 A. That's correct.

22 Q. And the purpose of your testimony is also
23 to describe the ability of the PPA rider units to
24 comply with pertinent environmental regulation,
25 correct?

1 A. That's correct.

2 Q. And the purpose of your testimony is
3 essentially to address the third factor that was
4 established by the Commission in the ESP III order
5 and was addressed by Mr. Vegas in his testimony; is
6 that correct?

7 A. That's correct.

8 Q. And your analysis of environmental
9 compliance obligations for the PPA rider units is not
10 an analysis of environmental compliance obligations
11 for the life of the units, correct?

12 A. That's generally correct, yes.

13 Q. And your analysis of environmental
14 compliance obligations for the PPA rider units
15 includes all obligations that AEP Service Corporation
16 has some information on that may affect these units,
17 correct?

18 THE WITNESS: Could you read that back?

19 (Record read.)

20 A. When you say "all obligations," you mean
21 all environmental obligations?

22 Q. Yes, sir. Environmental regulatory
23 obligations.

24 A. My testimony specifically addresses a
25 certain set of rules that are either in place or are

1 anticipated. There are other environmental
2 obligations at these plants, the sort of day-to-day
3 compliance obligations that may be in existing
4 permits that have been in place that we anticipate
5 would continue. Those day-to-day type things we
6 don't address. It's the higher level regulations
7 that we focus on in looking at the anticipated
8 impacts of those on these units going forward.

9 Q. So, just to clarify, you're focusing on
10 new compliance obligations rather than obligations
11 that are existing and continuing; is that what you
12 were trying to describe to me, sir?

13 A. Yes. Yes.

14 Q. So your analysis would include final
15 regulations, proposed regulations, and regulations
16 that a state or federal agency is considering if
17 there is enough information to actually start
18 thinking about what the implications may be.

19 MR. SATTERWHITE: Can you reread the
20 question, please.

21 (Record read.)

22 A. Yes.

23 Q. And your testimony identified six
24 regulations that could have a potential impact on the
25 PPA rider units, correct?

1 A. That's correct.

2 Q. And these regulations are the Mercury Air
3 Toxic Standards, the Cross-State Air Pollution Rule,
4 the Coal Combustion Residuals Rule, the 316(b) rule,
5 the Effluent Limitation Guidelines Rule, and the
6 Clean Power Plan, correct?

7 A. That's correct.

8 Q. And during your deposition you identified
9 two additional regulations that could have potential
10 impacts on the PPA rider units, correct?

11 A. I believe that's correct.

12 Q. And those additional regulations are the
13 National Ambient Air Quality Standards for sulfur
14 dioxide and ozone, correct?

15 A. Yes.

16 Q. Now, you don't think that the six
17 regulations that you identified in your testimony and
18 the two additional regulations that you identified
19 during your deposition are going to be the only
20 environmental regulations that will impose compliance
21 costs on the PPA rider units during their operating
22 life, correct?

23 A. To the extent, as I already indicated,
24 there's other environmental compliance obligations
25 that currently exist for these units that are in

1 permits that we comply with, I would anticipate those
2 to continue and either -- there's the potential for
3 other regulations at some point in the future.

4 Q. And there's potential for other new
5 regulations; is that what you're referring to, sir?

6 A. There's the potential, yes.

7 Q. And do you think that's a reasonable
8 potential over the operating life of the units?

9 A. I mean, it's hard to say for sure
10 projecting that far out, but I think there's a
11 reasonable possibility that there could be new
12 requirements.

13 Q. Okay. Now, you're the vice president,
14 the vice president of Environmental Services for AEP
15 Service Corp., correct?

16 A. That's correct.

17 Q. And you're responsible for providing
18 environmental compliance support for AEP's operating
19 companies; is that correct?

20 A. That's correct.

21 Q. Okay. And your group reviews the
22 finalized -- reviews proposed and finalized
23 regulations to determine if they would have a
24 potential impact on facilities that AEP operates,
25 correct?

1 A. Yes.

2 Q. And if a regulation doesn't establish a
3 specific emission limit for a plant or unit, you and
4 your group would help determine what emission limit
5 would be required for compliance, correct?

6 A. Not necessarily.

7 Q. Sometimes that's what you and your group
8 would do, correct?

9 A. For some, but there are some regulations
10 that initially might require a state environmental
11 agency to determine what limits may be needed, what
12 reductions may be needed, and establish limits. So
13 in that case it might be another regulatory agency
14 that makes that determination as opposed to my
15 organization.

16 Q. But you still provide guidance when
17 appropriate.

18 A. Yes.

19 Q. Okay. And you direct your group to model
20 air emissions when appropriate, correct?

21 A. Yes.

22 Q. And you direct your group to model air
23 emissions to help determine if a regulation would
24 potentially impact a plant or unit that AEP operates,
25 correct?

1 A. At times we may do that, yes.

2 Q. And you direct your group to review air
3 monitoring data when appropriate, correct?

4 A. Can you define what you mean by "air
5 monitoring data"?

6 Q. Sure. Usually there's a monitoring
7 network across the United States and they take
8 readings of various pollutants, and would you and
9 your -- you and your department have at points
10 reviewed monitoring data, correct? To make sure the
11 units are compliant with whatever regulation you're
12 examining?

13 A. That monitoring data, ambient air quality
14 monitoring data, it may be from monitors that a state
15 agency or a federal agency puts in place, we may look
16 at that data. That data is not specific to our
17 operations in terms of whether we're in compliance.
18 We do have emissions monitoring on our units, and
19 it's that monitoring data that is really more
20 relevant to determining whether we're in compliance
21 or not.

22 Q. Okay. But you do look at air monitoring
23 data by state agencies to see if it has implications
24 for your units on occasion.

25 A. At times we have looked at that, yes.

1 Q. And if your department identifies a
2 potential regulatory impact on a facility, you and
3 your group communicate that information to the
4 engineering department; is that correct?

5 A. To the engineering department and to
6 others. It may be on a broader basis as well.

7 Q. I'm sorry?

8 A. The engineering department is one
9 organization we might communicate to, but we may
10 communicate on a broader basis to others within the
11 company as well.

12 Q. Okay. But the engineering department is
13 usually the main one that you communicate with?

14 A. They're one.

15 Q. And the engineering department then
16 identifies technologies that would bring the unit
17 into compliance with the environmental regulation
18 that your group has identified, correct?

19 A. It's going to be sort of regulation
20 specific in a lot of cases, in particularly the
21 context of the rules that I discuss. That would be
22 the process, to identify what we anticipate the
23 requirements may be or, in a final rule, what the
24 requirements, communicate that, and the engineering
25 department would then evaluate what technologies

1 might be available to meet whatever the new
2 requirements might be.

3 Q. Okay. And the engineering department,
4 they may provide an initial cost evaluation; is that
5 correct?

6 A. Again, it may depend on the technology.
7 There may be some technologies that they would have
8 information on costs, but the process primarily is
9 the engineering department identifying technologies,
10 the projects department then taking that information,
11 looking at what the potential implementation schedule
12 might be, when we have to install technologies,
13 establishing schedules and developing cost
14 information on what the ultimate costs would be. So
15 it's a process that includes environmental,
16 engineering, and our projects organization working
17 collaboratively.

18 Q. And I was going to try to walk through
19 the whole process with you step by step just so it
20 was clear, because it was -- after your deposition it
21 became more clear to us. So from my understanding
22 your department, you look at the environmental -- you
23 look at all of the regulations and you figure out if
24 there's going to be a potential impact on a facility
25 or a unit, and then you communicate that information

1 to engineering or another group within AEP, correct?

2 A. Yes.

3 Q. Okay. And then typically the engineering
4 department is the one that identifies the
5 technologies that will bring that unit into
6 compliance with the identified regulation, correct?

7 A. Yes.

8 Q. Now, on a broad scale the engineering
9 department may give you an initial cost evaluation,
10 correct? And then you go to the -- if you want,
11 because you seem to want to go there, the project
12 department then takes the information provided by the
13 engineering department, they lay out a schedule for
14 the project implementation and they develop a more
15 robust cost estimate; is that correct?

16 MR. SATTERWHITE: Objection. I think we
17 have two questions pending.

18 MS. HENRY: We can strike the first one.

19 A. Okay. And then if you could repeat the
20 second one just so I'm clear what you're trying to
21 get.

22 Q. So the project department takes
23 information provided by the engineering department,
24 lays out a schedule for project implementation, and
25 then they develop a more robust cost estimate,

1 correct?

2 A. That's generally correct. They take the
3 technologies the engineering department identifies --

4 Q. Yes.

5 A. -- and then develops costs and schedules
6 for those technology options.

7 Q. Yes. I just want to -- you made it clear
8 during the deposition so I just want to make sure
9 everybody understands.

10 A. Okay.

11 Q. Now, the costs that are identified, they
12 can be both capital costs and variable operation and
13 maintenance costs, correct?

14 A. They can be, yes.

15 Q. Okay. So your group is involved in the
16 process that selects the specific technology to
17 comply with a specific regulatory requirement, but
18 it's really the engineering and project departments
19 that make the actual selections about which
20 technology to implement, correct?

21 A. Yeah, we're involved in the process. The
22 engineering and projects department identify
23 technologies and costs associated with that and that
24 would allow for compliance with a particular
25 requirement. That's not necessarily the final

1 decision on what is selected.

2 Q. But it's not usually your department that
3 selects the final technology.

4 A. That's correct.

5 Q. Okay. And you also provide -- you also
6 provide environmental compliance reports to Ohio
7 Valley Electric Corporation on an as-needed basis; is
8 that correct?

9 A. Could you repeat that? There was one
10 word I didn't quite hear.

11 Q. Sure.

12 MS. HENRY: Can you read the question
13 back.

14 (Record read.)

15 A. I wouldn't use the word "reports." I
16 would use the word "support," environmental
17 compliance support of Ohio Valley Electric.

18 Q. And Ohio Valley Electric Corporation has
19 its own environmental department; is that correct?

20 A. Yes, it does.

21 Q. So sometimes the Ohio Valley Electric
22 Corporation's environmental department will request
23 that your group support them and talk about certain
24 regulations to determine if the rules would have a
25 potential impact on OVEC facilities.

1 A. That's correct.

2 Q. And with regard to the Zimmer and Stuart
3 units, AEP is not the operating company, correct?

4 A. That's correct.

5 Q. So the actual operating company, they
6 develop compliance plans for those units, correct?

7 A. That's correct.

8 Q. And you don't actually know what the --
9 you don't know what process the operating companies
10 use to develop compliance projects that would be
11 required at those units, correct? For Stuart and
12 Zimmer specifically.

13 A. We're not directly involved in that
14 process. There is an oversight sort of structure for
15 these jointly-owned units where they share
16 information and some of that could be sort of
17 forward-looking budget information on what's
18 anticipated.

19 Q. Okay.

20 A. So we're not involved in the process that
21 they use to develop that information, but there is a
22 process that allows the owners to kind of see what
23 each company is looking at.

24 Q. Okay. So, as a co-owner, they have some
25 say on, you know, what is actually done, but you and

1 your group, you're not actually -- you don't actually
2 help develop the compliance projects at these units.

3 A. That's correct.

4 Q. Have you read Mr. Thomas's testimony that
5 was submitted in this docket?

6 A. Yes, I have.

7 Q. Do you have a copy of his testimony in
8 front of you?

9 A. Yes, I do.

10 Q. Okay. Can I refer you to page 6, and I'm
11 going to refer you to line 17.

12 Let me know when you're there.

13 A. Okay.

14 Q. So the question was "Do you anticipate
15 that the affiliated PPA units will be compliant with
16 the environmental regulations described in the
17 testimony of AEP Witness McManus in this proceeding,"
18 correct?

19 A. Yes.

20 Q. And then Mr. Thomas stated: "Yes. For
21 the regulations described by Witness McManus the
22 affiliated PPA units are either already equipped for
23 environmental controls necessary to comply with those
24 rules or AEPGR has included budgetary estimates for
25 future reasonably anticipated environmental

1 compliance projects in its financial analyses,"
2 correct?

3 A. That's what it says.

4 Q. Okay. And if I refer to the budgetary
5 estimates Mr. Thomas describes in this paragraph as
6 the budgetary estimates throughout this
7 cross-examination, will you understand what I mean?

8 A. Well, without seeing a specific list, in
9 a general sense I believe I would understand that.

10 Q. We'll get to the list.

11 A. Okay.

12 Q. I'll make sure we get to the list.

13 So you are familiar with the budgetary
14 estimates referenced by Mr. Thomas, correct?

15 A. I'm familiar with some capital project
16 cost forecasts that we used in this proceeding, I'm
17 assuming that's what...

18 Q. Could I ask you to speak up. I'm so
19 sorry.

20 MS. HENRY: Or have the answer read back.

21 (Record read.)

22 A. If that's what's being referred to as
23 budgetary estimates, then I'm familiar with that.

24 Q. Okay. So you're familiar with them as
25 they were part of the process that we just described

1 earlier when your group works with engineering and
2 projects in developing projects, correct?

3 A. Yes.

4 Q. Okay. But you did not have a role in
5 actually reviewing these costs for accuracy though,
6 correct? Mr. Thomas's budgetary estimates.

7 A. That is correct.

8 MS. HENRY: I would like to mark as
9 Sierra Club Confidential Exhibit 7 a copy of
10 AEP Ohio's response to Sierra Club interrogatory 2-45
11 and two confidential attachments to it. I'm having
12 this exhibit marked as confidential, but I will not
13 discuss any confidential information until we go into
14 confidential session. Is that okay with everyone?

15 EXAMINER PARROT: That's the preference,
16 actually. Can you identify it for us, please?

17 MS. HENRY: Sure. It's AEP's response to
18 Sierra Club interrogatory 2-45 along with two
19 confidential attachments.

20 EXAMINER PARROT: Very good. It's marked
21 as Sierra Exhibit No. 7.

22 (EXHIBIT MARKED FOR IDENTIFICATION.)

23 MR. SATTERWHITE: And for distribution
24 how are we handling that? We have to check to see
25 who's --

1 MS. HENRY: Well, I was definitely going
2 to give it to the Bench.

3 MR. SATTERWHITE: Obviously. I just want
4 to make sure we're...

5 MS. HENRY: You let me know.

6 MR. NOURSE: We can hand it out.

7 MR. SATTERWHITE: And we're marking -- I
8 understand we'll be marking these as Confidential in
9 the name of the exhibit, correct?

10 EXAMINER PARROT: We're just being sure
11 we designate it as a confidential exhibit on the
12 record.

13 MS. HENRY: I think I asked for it to be
14 called Confidential Sierra Club Exhibit 7. Will that
15 work?

16 MR. SATTERWHITE: Great.

17 MS. HENRY: I'm not sure of the standard
18 process.

19 Mr. Nourse, are you going to distribute
20 those now?

21 MR. NOURSE: I have got to get my book,
22 yeah.

23 MS. HENRY: Oh, yeah, sorry.

24 MR. SATTERWHITE: Are we off the record
25 or on the record?

1 EXAMINER PARROT: On the record.

2 MR. SATTERWHITE: Can we go off the
3 record so I can ask one question?

4 EXAMINER PARROT: Yes. Let's go off the
5 record.

6 (Discussion off the record.)

7 EXAMINER PARROT: Back on the record.

8 Q. (By Ms. Henry) So, Mr. McManus, we're
9 going to be referring to this exhibit throughout our
10 cross-examination today. While we're in the public
11 session I am going to ask you some questions. Please
12 always -- I just want to caution you that we can talk
13 about projects and we can talk about certain
14 information, but the cost information included in
15 this document or the attachments is confidential so
16 we're not going to talk about that information until
17 we go into confidential session. Do you understand
18 that?

19 A. Yes, I do. My recollection in the
20 deposition is we also indicated the specific years
21 that the costs were in might be confidential as
22 well --

23 Q. Okay.

24 A. -- in terms of the schedule.

25 Q. So the years and the costs will not be

1 referred to.

2 A. Okay.

3 Q. And I did try to make it a larger copy
4 for your ease.

5 A. I do appreciate that.

6 Q. Have you seen this document before?

7 A. Yes, I have.

8 Q. Okay. And this spreadsheet includes the
9 budgetary estimates that Mr. Thomas was discussing in
10 his testimony, correct?

11 A. I guess I'm not sure what Mr. Thomas used
12 as budgetary estimates, the full scope of that term
13 in the context of what he testifies to. My
14 understanding is these projects are included as a
15 part of that. I don't know if it's everything that
16 he refers to as budgetary estimates.

17 Q. So you don't know if this is the
18 exclusive list of projects; is that what you're
19 telling me?

20 A. Yeah, it's my understanding this is the
21 list of environmental projects.

22 Q. Okay.

23 A. I don't know if there's something more
24 beyond that when Mr. Thomas refers to budgetary
25 estimates.

1 Q. So, to your knowledge, this is the list
2 of environmental compliance projects, correct?

3 A. The capital costs associated with those
4 projects, correct.

5 Q. Great.

6 Now, with regard to the cost estimates
7 that are included in this document for Zimmer and the
8 Stuart units, because those are operated by non-AEP
9 companies, you did not review those cost estimates,
10 correct, until I believe the week of your deposition?

11 A. That's correct.

12 Q. So you don't know what the cost estimate
13 for the Zimmer and Stuart units that are operated by
14 these non-AEP entities are based on; is that correct?

15 A. That's correct. We don't participate in
16 their process to develop those costs.

17 Q. Okay.

18 A. Or I don't participate in their process.

19 Q. Okay.

20 MS. HENRY: I was going to ask a question
21 and I'm not sure if it's confidential or not. Can I
22 go off the record for a second?

23 EXAMINER PARROT: Yes.

24 (Discussion off the record.)

25 EXAMINER PARROT: Back on the record.

1 Q. Sir, referring to these spreadsheets,
2 they present costs until 2024; is that correct?

3 A. That's correct.

4 Q. Now, you think it would be reasonable to
5 assume that there will be compliance costs beyond
6 2024, correct?

7 A. As I indicated, all of these units
8 have -- I think we get into a myriad of environmental
9 compliance obligations that I won't anticipate, you
10 know, that exists now that will go in place in this
11 time period that I would anticipate would continue
12 beyond 2024.

13 Q. And you believe the compliance
14 obligations that are listed on these spreadsheets for
15 compliance obligations with Effluent Limitation
16 Guidelines, Mercury Air Toxic Rule, Coal Combustion
17 Residual Rule, the 316(b) Rule will have compliance
18 obligations beyond 2024, correct?

19 A. Yeah, I would assume, unless any of those
20 rules are actually taken off the books, that there
21 will be compliance obligations that continue as the
22 units continue to operate.

23 Q. Okay. But this -- you don't think that
24 that universe of environmental regulations is all the
25 environmental compliance obligations that you believe

1 could be in effect for these units beyond 2024,
2 correct?

3 A. It represents what we can reasonably
4 anticipate based on what's before us now in sort of
5 the record of what EPA has proposed or finalized. Is
6 there potential that there could be something new
7 that comes up beyond that? That potential exists.

8 Q. And that's a reasonable potential,
9 correct?

10 A. I think it's reasonable that something
11 else could come up.

12 Q. Okay. Now, you did not work with
13 Dr. Pearce on the PLEXOS production cost modeling at
14 all, correct?

15 A. That's correct.

16 Q. And you did not review any of the
17 modeling inputs including the environmental
18 compliance costs, correct?

19 A. That's correct.

20 Q. And you don't know whether operation and
21 maintenance costs were included in the budget
22 estimates for environmental compliance costs,
23 correct?

24 A. I do not know.

25 Q. And you don't know whether the

1 environmental compliance costs that Mr. Thomas
2 identifies were included in Mr. Pearce's modeling,
3 correct?

4 A. To confirm that you'd have to ask
5 Dr. Pearce, but I've assumed this is included. But
6 you'd have to confirm with Dr. Pearce.

7 Q. So all you have is an assumption; you
8 don't know, correct?

9 A. Based on conversations with Dr. Pearce,
10 my assumption's based on that, but confirmation would
11 have to come from him on exactly what he has in his
12 model.

13 Q. So you didn't verify what the inputs were
14 and verify that they were part of it, correct?

15 A. I did not.

16 Q. Okay. And did you verify that all the
17 environmental compliance costs that Mr. Thomas
18 identified cover all of the environmental compliance
19 obligations that you yourself identified in your
20 testimony?

21 A. Well, to the extent that not all of those
22 environmental obligations, environmental regulations
23 are final yet, and even some that are final, there's
24 a process that you engage in to determine ultimately
25 the requirements. So there's still that uncertainty.

1 For most of the rules that I discuss in my testimony
2 I believe this is a good estimate of what may be
3 required under those rules.

4 MS. HENRY: Can I have the -- you said --
5 the last part of that answer read back.

6 (Record read.)

7 Q. Okay. But you did not look at the
8 budgetary estimates and compare it to your testimony
9 to make sure that all of the costs, all of the
10 compliance obligations that you identified were
11 included on this, did you, sir?

12 A. Well, again, I have looked at this list,
13 the specific projects, the regulation that they're
14 tied to, and, again, for most of the regulations,
15 ones that we are in a position to try and project out
16 the capital requirement, I believe this is consistent
17 with my understanding of what those regulations will
18 require.

19 Q. Okay. And was your belief in any way
20 validated, sir? Did you cross-reference? Did you
21 check?

22 A. I'm not sure, cross-reference was --

23 Q. Okay, so --

24 MR. SATTERWHITE: Objection. Can he
25 finish?

1 Q. I'm going to rephrase, but if you want.

2 A. Yeah, I don't quite understand the
3 question.

4 Q. These spreadsheets list projects,
5 correct?

6 A. Yes.

7 Q. And there are -- they're associated with
8 certain regulations, correct?

9 A. Yes.

10 Q. Did you look and see if the projects and
11 the regulations identified match up with where you
12 said there were compliance issues? In your testimony
13 you say this regulation leads to a compliance at this
14 plant. Did you check this to make sure that all of
15 the ones that you identified were actually included
16 on this spreadsheet?

17 A. As I indicated, for most of the
18 regulations that I discuss, when I review this list,
19 it's consistent with sort of my judgment, my
20 understanding of what would be required. There are
21 some of the regulations discussed that are not far
22 enough along to identify a specific project, so that
23 would not be on here if there's not enough
24 information.

25 Q. If I refer to the Mercury Air Toxic Rule

1 as MATS, will you understand what I mean?

2 A. Yes.

3 Q. Okay. Now, there are two PPA rider
4 units, Conesville units 5 and 6, that require
5 additional controls to comply with MATS; is that
6 correct?

7 A. There is a project ongoing at those two
8 units to install additional controls. My
9 understanding is one of them is complete. The second
10 one will be completed between now and April of next
11 year.

12 Q. Okay. So these units have to comply with
13 MATS by April of 2016, correct?

14 A. That's correct.

15 Q. And are these units expected to start
16 operating the control technologies needed for MATS
17 compliance on a regular basis earlier than April of
18 2016?

19 A. I do not know when we'll begin to
20 operate. Mr. Thomas can kind of address that
21 technology and how it operates for the unit that's
22 been completed. For the second unit it would tie to
23 when that retrofit work will be completed, when it
24 might go into operation.

25 Q. Does your group usually recommend that

1 units comply with regulatory requirements far in
2 advance of compliance deadlines?

3 A. No. We wouldn't necessarily make that
4 recommendation.

5 Q. Okay. So you usually figure out when the
6 compliance date is and work backwards from there; is
7 that correct? For the scheduling, the projects and
8 engineering team.

9 A. Yeah. Again, my department would
10 identify the regulatory requirements and the
11 implementation schedule to the best we can. Then we
12 would work in our process with engineering and
13 projects. Projects would lay out a schedule. That
14 schedule would reflect the need to be in compliance
15 by a specific deadline.

16 Q. Okay.

17 A. But there may be factors on a
18 unit-by-unit basis that are going to determine when
19 the actual work is done in order to schedule and
20 space out that work --

21 Q. Okay. But you --

22 A. -- across the complete --

23 Q. Generally you try to comply around the
24 compliance date.

25 A. We certainly try to make sure we're in

1 compliance by the compliance date and not after the
2 compliance date, but generally that would be the
3 target.

4 Q. Okay. Now, the Coal Combustion Residual
5 Rule, it establishes for coal-fired power plants
6 specific design and monitoring standards for new and
7 existing landfills and surface impoundments as well
8 as measures to ensure and maintain the structural
9 integrity of surface impoundments or ponds, correct?
10 And I can refer you to your direct testimony on page
11 8, lines 3 through 6.

12 A. That's correct.

13 Q. And if I refer to the Coal Combustion
14 Residual Rule as the CCR rule, will you know what I
15 mean?

16 A. Yes.

17 Q. Okay. Now, the final CCR rule treats
18 waste as solid waste which is a Subtitle D program,
19 correct?

20 A. That's correct.

21 Q. And I'm going to refer you to your
22 amended testimony on page 8, lines 6 through 9. You
23 state that the CCR rule could lead to converting wet
24 ash disposal systems to dry ash handling and
25 disposal, the relining and closing of ash ponds that

1 exceed groundwater standards, and the construction of
2 additional wastewater treatment facilities, correct?

3 A. That's what it says, yes.

4 Q. And you identified the CRR rule could
5 have a potential impact on Kyger Creek units, Stuart
6 units, and Cardinal unit 1 since all of these units
7 utilize wet ash handling; is that correct? Do you
8 want me to refer you to the line, sir?

9 A. No, I have the line.

10 The CCR rule will apply to all of the
11 coal units that -- the PPA rider units, these
12 specific units are identified, and probably what
13 should be on line 11 is utilize wet fly ash handling
14 systems as what distinguishes these specific units
15 from the other units that are in the proceeding.

16 Q. Can I ask you to speak up, sir? I'm so
17 sorry, but when I travel, sometimes I have difficulty
18 hearing.

19 A. I tend to have a voice that doesn't
20 project so I will try to speak up.

21 MS. HENRY: So can I have the answer read
22 back?

23 (Record read.)

24 Q. Okay. So you pulled out the Kyger Creek,
25 Stuart, and Cardinal units because of their wet ash

1 handling as all the plants obviously have to comply
2 with this regulation but these are the ones that will
3 have to take additional steps in order to lead to
4 compliance.

5 A. These units handle fly ash on a wet basis
6 and that's why they're distinguished here as --
7 they'll have to address how they dispose of fly ash
8 in fly ash ponds consistent with the CCR units.

9 Q. And if you refer to your direct testimony
10 on page 8, lines 11 through 13, you state that the
11 Kyger Creek and Stuart units and Cardinal units may
12 need to convert from wet ash handling to dry ash
13 handling, correct?

14 A. That's correct.

15 Q. And it is your understanding that the
16 company included the potential conversion costs in
17 the budgetary estimate for these projects, correct?
18 Well, just talking about your general understanding
19 for now.

20 A. I just want to check one thing.

21 Yes, that's my understanding.

22 Q. Okay. So let's go to Confidential Sierra
23 Club Exhibit 7 which is Mr. Thomas's budgetary
24 estimates and just a reminder that we're not going to
25 be talking about the confidential information in this

1 document.

2 So you identified potential compliance
3 issues for the Stuart units; is that correct? I can
4 refer you again to your testimony on page 8, lines 11
5 through 13.

6 Now, I'm going to cross-reference you to
7 this table and to look at the Stuart plant. I'm
8 going to ask you do you see a line item for Stuart to
9 comply with CCR?

10 A. Yes, I do.

11 Q. But do you -- this does not list the
12 bottom ash conversion; is that correct?

13 A. The list has a dry ash handling
14 conversion project.

15 Q. Dry fly ash.

16 A. Dry fly ash conversion, that's correct.

17 Q. What about bottom ash?

18 A. It's not on the list, the CCR rule
19 doesn't necessarily require dry bottom ash
20 conversion.

21 Q. So does the ELG rule require those?

22 A. The ELG rule was issued as final
23 yesterday, so we're still in the process and very
24 initial stages of understanding the final
25 requirements. I'm not sure yet what the ELG rule

1 might require on bottom ash.

2 Q. Okay. But bottom ash for -- but bottom
3 ash for CCR is not listed on this, correct?

4 A. That's correct.

5 Q. Okay. Now let's look at the Kyger Creek
6 units. They're on the other spreadsheet.

7 A. If I could go back to my answer. In just
8 looking at this list there is a project for Stuart
9 that's under ash pond closure, fly and bottom ash
10 pond closure that has CCR identified in the
11 requirements. So there is something in here related
12 to bottom ash ponds that he has identified just to
13 clarify that.

14 Q. Okay. For Kyger Creek do you see dry
15 bottom ash conversion projects listed?

16 A. I do not. There's bottom ash pond reline
17 projects but not bottom ash conversion projects.

18 Q. Okay. So the conversion project that you
19 listed in your testimony you don't see listed on this
20 one, correct?

21 A. No, my testimony indicates that there's
22 still analysis undergoing for the CCR rule and
23 conversion may be required. So we're still in that
24 process. My testimony doesn't say that it will be
25 required.

1 Q. Okay. But --

2 A. So with that understanding --

3 Q. But with the --

4 MR. SATTERWHITE: Objection, your Honor,
5 he's still trying to finish out his answer. I would
6 appreciate her letting him.

7 A. So with that understanding of what the
8 testimony says.

9 Q. Okay. Just to backtrack, there are 20
10 PPA rider units, correct?

11 A. That sounds about right.

12 Q. And you pulled out a subset of those PPA
13 rider units to say it's reasonable to anticipate that
14 there will be costs for conversion from wet to dry
15 ash, and these are that small universe of PPA rider
16 units, correct?

17 A. So I --

18 Q. You winnowed down the reasonable units to
19 look at costs for that, correct?

20 MR. SATTERWHITE: Objection. There's two
21 questions pending. We continue to have this. I
22 would appreciate a single question so it's clear.

23 EXAMINER PARROT: Give him a minute to
24 answer before we have another question.

25 MR. SATTERWHITE: Thank you.

1 A. As I indicated in my testimony on line 11
2 on page 8, we should have had "fly" in between wet
3 and ash, wet fly ash, that's what this thing which is
4 Kyger Creek, Stuart, and Cardinal 1, they have fly
5 ash ponds and so that paragraph as written, the
6 intent was to discuss fly ash ponds. That doesn't
7 mean there won't be impacts for bottom ash disposal.
8 We will have to comply with the CCR -- I mean with
9 the ELG rule for bottom ash and fly ash ponds, but
10 what that paragraph was intended to address in terms
11 of distinguishing those three facilities is they have
12 fly ash ponds.

13 Q. So you want to modify your testimony now
14 to say that it only applies to fly ash; is that what
15 you're saying?

16 A. No. I'm not saying that. I'm saying
17 that paragraph and those three facilities, Kyger
18 Creek, Stuart, and Cardinal, are identified in that
19 sense, and it should have said "wet fly ash" handling
20 systems. That's what distinguishes them. It was not
21 intended to suggest that any others of the PPA rider
22 units would not be subject to the CCR rule.

23 Q. There are operating and maintenance costs
24 with the dry ash handling system, correct?

25 A. Yes, there would be.

1 Q. Okay. And did you develop and are you
2 aware if anyone else developed maintenance costs
3 associated with compliance with the CCR rule for this
4 proceeding?

5 A. I did not develop such costs, and I'm not
6 sure that they have been developed by others.

7 Q. Now, the CCR rule would require the
8 realigning or closing of ash ponds that exceed
9 groundwater quality standards, correct?

10 A. That's correct.

11 Q. Okay. So to determine if ash ponds at
12 AEP facilities are exceeding groundwater quality
13 standards, a groundwater monitoring network is being
14 installed and designed, correct?

15 A. I would reverse the order. It's being
16 designed to determine what network is needed to
17 comply with the requirements of the CCR rule. Once
18 we have that design then we will install the
19 groundwater monitors -- monitoring wells.

20 Q. Okay.

21 A. Yes.

22 Q. And so this analysis that's currently
23 underway is the design of the installation of the
24 monitoring network to determine if there's
25 groundwater contamination, correct?

1 A. The initial analysis is to determine the
2 design of the network. Then we will install
3 monitoring wells to be sure we have a monitoring
4 network that meets the requirements of the CCR rule,
5 then we will collect samples based on requirements of
6 the CCR rule and that data would then be used to
7 determine if there is sort of an influence from the
8 ponds on groundwater.

9 Q. So groundwater contamination, if found,
10 additional steps to comply with the CCR rule may be
11 required, correct?

12 A. Correct.

13 Q. Okay. And you don't actually know what
14 modifications will be required to comply with the CCR
15 rule of the surface impoundments, correct?

16 A. At this time we don't know because we
17 don't have the data to determine if there's an impact
18 that might need to be addressed.

19 Q. And you don't believe that any
20 groundwater remediation costs were included in the
21 budgetary estimate, correct?

22 A. It's my understanding that they were not.

23 Q. Okay. So the compliance cost estimates
24 could presumably change, correct?

25 A. The compliance cost estimates could

1 change for a number of reasons as we complete the
2 studies that are required by the rules, as we
3 identify more specifically what compliance steps are
4 needed, as we get a better understanding of the costs
5 associated with doing the projects. There's a number
6 of -- if the schedule changes because the
7 implementation schedule changes. There's a lot of
8 things that could change the numbers that we used as
9 estimates.

10 Q. So the spreadsheet, it contains two
11 relining projects for compliance with the CCR rule;
12 is that correct? At Kyger Creek and Clifty Creek.

13 A. There are bottom ash pond reline projects
14 at Kyger Creek and Clifty Creek in the schedule,
15 that's correct.

16 Q. And do you see relining projects at any
17 other facilities on these spreadsheets?

18 A. I see bottom ash pond reline projects at
19 Conesville and at Cardinal.

20 Q. And so no other, you didn't list any
21 other, no other facilities have relining projects?

22 A. As I indicate, the Stuart list of
23 projects includes a bottom ash pond closure, so
24 they're not anticipating relining, they're
25 anticipating potentially closing that pond. So it's

1 not a reline project there.

2 And Zimmer does not have a bottom ash
3 pond reline, but I also believe they handle their
4 bottom ash dry.

5 MS. HENRY: I want to mark a copy of -- I
6 want to mark as Sierra Club Exhibit 8, a copy of
7 AEP's comment letter to the U.S. EPA which is dated
8 November 15th, 2010, which was titled "Comments on
9 the Proposed CCR Rule by American Electric Power."

10 EXAMINER PARROT: So marked.

11 MS. HENRY: May I approach?

12 EXAMINER PARROT: You may.

13 (EXHIBIT MARKED FOR IDENTIFICATION.)

14 Q. (By Ms. Henry) I'll give you a moment,
15 let me know when you're ready, sir.

16 A. Okay.

17 Q. So this document is signed John M.
18 McManus, vice president of Environmental Services,
19 correct?

20 A. That's correct.

21 Q. And is that you, Mr. McManus?

22 A. Yes, it is.

23 Q. So that's your signature block.

24 A. Yes, it is.

25 Q. Have you seen these comments before?

1 A. Yes, I have.

2 Q. And these comments were developed at your
3 direction?

4 A. Yes.

5 Q. Okay. And you reviewed these comments
6 before they were submitted to the U.S. Environmental
7 Protection Agency?

8 A. Yes.

9 Q. And at a high level you reviewed
10 everything in this comment letter including the
11 costs?

12 A. At a high level, yes.

13 Q. Okay. Can you go to page 1 of, sorry,
14 page 1 of the actual document. And there's a large
15 paragraph, and it's the third paragraph which is the
16 largest paragraph on that page. And if you look in
17 the middle of that paragraph there's a sentence that
18 begins "Looking at AEP alone."

19 A. Okay.

20 Q. Can you read that sentence into the
21 record.

22 A. "Looking at AEP alone, the fully loaded
23 compliance cost for the AEP operated coal-fired power
24 plants that would continue to operate after 2017 has
25 been estimated (a pre-screening analysis) by AEP

1 engineers at \$3.9 billion."

2 Q. And you said that this estimate
3 represents an aggregate of the costs for individual
4 sites; is that correct?

5 A. That's what it would represent, yes.

6 Q. Okay. Can you refer to the bottom of the
7 page where it talks about calculations for compliance
8 costs that will be paid by customers.

9 A. Okay.

10 Q. Do you see that, sir?

11 A. Yes.

12 Q. So it says "Calculations showed that the
13 incremental rate increases associated with complying
14 with CCR regulations under the proposed Subtitle D
15 program would be," and for Ohio Power it says an
16 8.3 percent plus, correct?

17 A. That's what it says, yes.

18 Q. Just to confirm, CCR is -- the final rule
19 was a Subtitle D program; is that correct?

20 A. That is correct.

21 Q. And do you know whether the cost
22 estimates that were used to prepare this comment
23 letter were used to prepare the budgetary estimates
24 that were in this proceeding?

25 A. I would say it was not. This cost

1 estimate was developed, as indicated in the cover
2 letter, in 2010. It was based on the -- the initial
3 proposal was based on an initial effort to identify
4 what the proposed rule might require and not just
5 what it might require, say, in terms of closing a
6 pond, but if closure of ponds required additional
7 wastewater treatment because we use our ponds
8 oftentimes for low level wastewater treatment, if you
9 had to include a -- build a wastewater treatment
10 facility to handle that, we tried to do a high-level
11 estimate of that and include it in here.

12 Since November of 2010, we've had the
13 opportunity to review the rule in more detail.
14 There's been a lot of interchanges between the
15 industry and the EPA as they were moving towards a
16 final rule which took them about four years to do.
17 And so in that process -- in that time period and the
18 process that we used that I've described, when we
19 develop costs, it's not a static process. It's a
20 dynamic process.

21 And we try to continually review and
22 update with better information and refine costs,
23 particularly if we've implemented projects at other
24 facilities, we've actually constructed something,
25 we've got good information on the costs. So we're

1 constantly trying to improve the cost estimates which
2 we would have done over the time period.

3 Q. So you identified the wastewater
4 treatment, fair to say, as one of the major changes;
5 is that what you said?

6 A. My recollection going back now almost
7 five years is that we initially looked at, if you
8 didn't have ponds, what would that mean to handle low
9 level waste, you know, water waste streams. We
10 included an estimate in that. As time has gone on,
11 as we understood the rule better, as we've looked at
12 proposed ELG rules, I think we've taken a different
13 view on how you might be able to handle those waste
14 streams.

15 So what might have been in this initial
16 2010 estimate may not be in our list now because,
17 based on the final rule, there may be alternative
18 approaches to handling those waste streams.

19 Q. Okay. And just give me one moment.

20 Okay. And what day was your amended
21 direct testimony prepared? Or submitted to the
22 Commission.

23 A. The middle of May.

24 Q. And I'm going to refer you to page 8.

25 A. Okay.

1 Q. And then you're going to review lines 6
2 through 9. And I'm going to read the beginning part
3 of the sentence and then the last part of the
4 sentence. So "The CCR Rule could lead
5 to...construction of additional wastewater treatment
6 facilities." That's what you said, correct?

7 A. That's what it says, yes.

8 Q. Okay. Thank you.

9 Let's talk about the 316(b) Rule. So the
10 316(b) Rule is a final rule promulgated under the
11 Clean Water Act, and it requires existing power
12 plants to comply with a standard that addresses
13 impingement of aquatic organisms on cooling water
14 intake screens, correct?

15 A. That's one part of the 316(b) Rule.

16 Q. The rule also requires site specific
17 studies to be performed to determine appropriate
18 compliance measures with respect to the environmental
19 regulations with respect to the entrainment of
20 organisms in cooling water systems, correct?

21 A. That's correct.

22 Q. And if I refer to this rule as 316(b),
23 will you know what I mean?

24 A. Yes.

25 Q. And requirements with this rule is

1 required no later than 2022, correct?

2 A. That sounds about right, the
3 implementation schedule is tied to the renewal cycle
4 for NPDES permits, water permits, the schedule's
5 going to vary but the 2022 sounds like the out year
6 on compliance.

7 Q. And I'm going to direct you to your
8 testimony on page 9, lines 12 through 13.

9 A. Okay. That's what it says.

10 Q. So just to confirm, compliance with this
11 rule is required by no later than 2022, correct?

12 A. Yes.

13 Q. Now, you identified 316(b) Rule could
14 have potential impact on Conesville unit 4 through 6,
15 Stuart unit 4, and Zimmer unit 1?

16 A. That's correct.

17 Q. Okay. And you identified the potential
18 of the proposed rule on these generating units would
19 need to alter the design of screens at the river
20 intake structure and install additional screens to
21 mitigate harms to organisms, correct?

22 A. That's what we indicated based on the
23 proposed rule.

24 Q. And you identified the 316(b) Rule could
25 have the potential impact on the Clifty Creek plant,

1 Kyger Creek plant, Cardinal unit 1, and Stuart unit
2 3, correct?

3 A. Yes.

4 Q. And you identified the potential impact
5 of the proposed rule on these generating units would
6 be the need to modify the cooling water intake
7 structures for the plants to meet both the
8 environmental regulations, entrainment, and
9 impingement standards required by the rule, correct?

10 A. That's correct.

11 Q. And you stated that you don't, that you
12 do not anticipate the 316(b) Rule will require the
13 installation of cooling water towers, correct?

14 A. That's correct.

15 Q. Okay. I'm going to refer you to
16 Confidential Sierra Club Exhibit No. 7 which is the
17 budgetary estimates.

18 A. Okay.

19 Q. This spreadsheet contains two projects
20 related to 316(b), correct? One at Cardinal and one
21 at Stuart.

22 A. That's correct.

23 Q. Okay. So looking at the budget estimates
24 for those two projects, without revealing the actual
25 costs listed, is it your understanding that this list

1 does not include project costs for cooling water
2 towers? Would that be --

3 A. That's correct.

4 Q. Okay. Now, you identify potential
5 compliance issues for the Zimmer unit and the
6 Conesville units 4 through 6, correct, in your
7 testimony?

8 A. That's correct.

9 Q. And this spreadsheet does not list 316(b)
10 projects for those plants, right?

11 A. That's correct. That testimony in that
12 paragraph refers to the proposed rule. Based on the
13 final rule and what it requires for those units that
14 have cooling towers already, we don't believe that
15 there's going to be a need to make modifications
16 based on the final rule.

17 Q. We'll get to that later.

18 There's no line -- so in your testimony
19 you identify compliance obligations at those four
20 units, and you don't see those reflected in this
21 spreadsheet, correct?

22 MR. SATTERWHITE: Objection. Asked and
23 answered.

24 A. The testimony --

25 MR. SATTERWHITE: John, wait a second.

1 A. -- was the proposed rule. What we see
2 now was based on the final rule.

3 Q. When was this budgetary estimate made?

4 A. I'm not sure exactly.

5 Q. Okay. Was it made around the time that
6 you submitted your testimony?

7 A. I don't know exactly.

8 Q. Okay. So when you submitted your
9 testimony, that was the best information that you
10 had, correct? That those units would be covered by
11 316(b), correct?

12 A. Those units would be covered by 316(b).
13 What we anticipate we'll have to do now is based on
14 the final rule, based on the final rule with these
15 units already having closed cycle cooling, we believe
16 that that will allow them to comply with their 316(b)
17 requirements.

18 Q. Okay. Does your testimony state that
19 even systems with closed cycle cooling will have to
20 do different types of compliance obligations?
21 Correct, that's what your testimony says?

22 A. It says that based on the proposed rule.

23 Q. And this budgetary estimate was created
24 around the same time frame that you created your
25 testimony?

1 MR. SATTERWHITE: Objection, your Honor.

2 Q. To the best of your knowledge.

3 MR. SATTERWHITE: If I could finish my
4 objection. We're rephrasing the same question.

5 EXAMINER PARROT: I'll allow the
6 question.

7 THE WITNESS: Could you repeat the
8 question?

9 (Record read.)

10 A. I'm not sure exactly when the budgetary
11 estimate was prepared.

12 Q. Did you review the budgetary estimate
13 before it was filed?

14 A. Not that I can recall.

15 Q. When is the first time you saw the
16 budgetary estimate?

17 A. It's been recent in this proceeding that
18 I saw the specific spreadsheet with all the projects
19 listed.

20 Q. Would you say September of this year?

21 A. Yes.

22 Q. Okay. So before September of this year,
23 you never saw the budget estimates for these
24 projects.

25 A. I did not see this specific spreadsheet.

1 I may have seen -- for some of the projects on here,
2 I may have seen cost estimates in some point in the
3 process that we use with engineering and projects
4 that develop costs, but the specific spreadsheet with
5 all of the projects listed I just saw recently.

6 Q. You don't know what the underlying -- do
7 you know what the underlying compliance projects are
8 for each of the items listed here?

9 A. I would say generally I do.

10 Q. You generally understand.

11 A. Yes.

12 Q. You don't specifically know what the
13 projects are.

14 A. It's a long list. Do I know exactly on
15 every single one? I'm not saying I know exactly for
16 every single one on this list, but in general I think
17 I have a good sense of what these projects involve.

18 Q. All right.

19 MS. HENRY: I'd like to mark a copy of
20 Sierra Club Exhibit 9, a copy of AEP comments
21 submitted to the U.S. Environmental Protection Agency
22 on August 18th, 2011, which were titled "Comments
23 of American Electric Power on the Proposed Rule for
24 Cooling Water Intake Structures at Existing
25 Facilities" submitted to the EPA.

1 EXAMINER PARROT: So marked.

2 MS. HENRY: May I approach?

3 EXAMINER PARROT: You may.

4 (EXHIBIT MARKED FOR IDENTIFICATION.)

5 Q. (By Ms. Henry) So you've been in your
6 current position as vice president of Environmental
7 Services since 2003, correct?

8 A. That sounds correct.

9 Q. Have you seen these comments before?

10 A. Yes, I have.

11 Q. Since you've been in your current
12 position since 2003, you probably helped in
13 developing or reviewing these comments, correct?

14 A. I probably had a role in reviewing them.
15 They were prepared by my department.

16 Q. And your role would have been the same
17 that we already established in reviewing the rule and
18 working with others to develop costs, correct?

19 A. Correct.

20 Q. And please refer to AEP's comment letter
21 at the bottom of page 13 and going on to page 14.

22 A. Okay.

23 Q. It states that AEP's preliminary
24 estimates for the cost to retrofit wedge wire screen
25 systems at the 33 plants referred to in our

1 introductory comments is approximately 245 million
2 with an annual estimated operating & maintenance cost
3 of approximately 2.9 million, correct?

4 A. That's what it says.

5 Q. And can you refer to page 14 of the
6 comments. And it states the Cost of fish-friendly
7 screen & return system retrofits - AEP's preliminary
8 estimates to retrofit fish-friendly traveling water
9 screen and fish return systems at the 33 plants
10 referred to in our introductory comments is
11 approximately 233.5 million with an annual estimated
12 operating & maintenance costs of 20.3 million,"
13 correct?

14 A. That's what it says.

15 Q. And the comment letter states that the
16 costs for facilities that already have close
17 cooling -- let me see, let me give you the page
18 reference. Sorry.

19 Yeah, so on page 14, then Roman numeral
20 (iii), the comment letter states the costs for the
21 facilities that already have closed cycle cooling -
22 In addition to the total costs above, as a subset of
23 item (i), AEP's estimated costs associated with
24 retrofitting cylindrical wedge wire screen assemblies
25 to power plants which already employ closed cycle

1 cooling but which do not meet the 0.5 F, as in Frank,
2 P as in Paul, S as in Sam, velocity criterion. These
3 costs vary from a low of 1.9 million to a high of
4 6.2 million [verbatim] per plant," correct?

5 A. That's what it says.

6 Q. Okay. So since we already established
7 that you didn't review this before you filed your
8 testimony, do you know whether the cost estimates
9 used to prepare these comments were based on the
10 budgetary estimates that you told EPA about?

11 A. Could you repeat that, maybe reread it?

12 Q. Do you know whether the cost estimates
13 used to prepare the comments were used to prepare the
14 budgetary estimates in this proceeding?

15 A. I would say not because the cost
16 estimates and the comments were based on the proposed
17 rule. The budgetary estimates that we're using are
18 based on the final rule and what we believe the
19 requirements ultimately will be as we implement the
20 final rule.

21 Q. So not based on this.

22 EXAMINER PARROT: You need to be a little
23 more clear for the record. I don't know what "this"
24 is.

25 Q. So your budgetary estimates were not

1 based on your comment letter, the cost estimates in
2 the --

3 A. I think that's what I indicated, the
4 budgetary estimates should be based on the final
5 rule. This is a proposed -- an estimate of a
6 proposed rule.

7 Q. Okay. So the Effluent Limitation
8 Guideline Rule, it sets technology-based effluent
9 limitation guidelines and standards on the levels of
10 toxic metals and wastewater discharge from steam
11 electric plants, correct?

12 A. That is correct.

13 Q. If I refer to this rule as the ELG rule,
14 will you know what I mean?

15 A. Yes, I will.

16 Q. When considering the ability of the PPA
17 rider units to comply with the ELG rules, AEP assumed
18 that its efforts to comply with the CCR would help
19 with these units, help these units comply with the
20 ELG rules, correct?

21 A. That's correct.

22 MS. HENRY: I'm going to mark as Sierra
23 Club Exhibit 10 a copy of AEP's comments to the U.S.
24 Environmental Protection Agency, they were dated
25 September 20th, 2013, titled: "Comments of the

1 Operating Companies of the American Electric Power
2 System Inc. on Proposed Rule for Effluent Limitations
3 Guidelines and Standards for the Steam Electric Power
4 Generating Point Source Category."

5 EXAMINER PARROT: So marked.

6 (EXHIBIT MARKED FOR IDENTIFICATION.)

7 MS. HENRY: May I approach?

8 EXAMINER PARROT: You may.

9 Q. (By Ms. Henry) So I want to have you turn
10 to -- I'll give you a second, sir, let me know when
11 you're ready.

12 A. Okay.

13 Q. So I'm going to have you turn to the
14 second page of this document. So this letter is
15 signed by John McManus, vice president, Environmental
16 Services; is that correct?

17 A. That's correct.

18 Q. Are you the John McManus who submitted
19 this comment letter?

20 A. Yes.

21 Q. So have you seen this comment letter
22 before?

23 A. Yes.

24 Q. Okay. So these comments were developed
25 at your direction, correct?

1 A. That's correct.

2 Q. And you reviewed these comments before it
3 was submitted to the U.S. EPA, correct?

4 A. At a high level I reviewed them.

5 Q. Okay. And at a high level you reviewed
6 the cost estimate in this comment letter, correct?

7 A. Yes.

8 Q. Okay. And do you know whether the cost
9 estimate used to prepare these comment letters were
10 used to prepare the budgetary estimates in this
11 proceeding?

12 A. Is there a specific cost estimate in the
13 document that you're referring to?

14 Q. Oh, I'm just asking you -- we can refer
15 to that. Do you know if this was used for the basis
16 of Mr. Thomas's budgetary estimates?

17 EXAMINER PARROT: Again, we need to be --
18 the record is not going to know what "this" means
19 when you hold it up.

20 Q. Do you know whether the cost estimate in
21 Mr. Thomas's budgetary estimate, which we've marked
22 as Confidential Sierra Club Exhibit 7, if that was
23 based on the information about costs included in your
24 comment letter which was marked as Sierra Club
25 Exhibit 10?

1 A. I would say there's a relationship but,
2 again, with our process it's not a static process so
3 these were prepared two years ago. We continuously
4 try and review the cost estimates, update them based
5 on new information, so there may be a relationship to
6 costs here. Are they the same costs used in this
7 document as in the budgetary estimate? I would say
8 not.

9 Q. Okay.

10 A. But there should be a relationship.

11 Q. So let's go to this comment letter on
12 page 30, and there's a subpart there, a. Do you see
13 that, sir?

14 A. Yes, I do.

15 Q. Now, there's -- right after the table
16 there is a sentence, and does it say EPA has
17 underestimated the costs to retrofit fly ash disposal
18 system?

19 A. Seriously underestimated, yes.

20 Q. Seriously underestimated, yeah.

21 Okay. So if you look at the paragraph
22 above that, does it state that the total costs to
23 convert two facilities to dry disposal would be about
24 \$198 million in 2010 dollars? Is that correct?

25 A. That's what it says, yes.

1 Q. And does it say that, the last sentence
2 of that same paragraph, that on a per-plant basis the
3 AEP cost is \$99 million in 2010 dollars, a value that
4 is 16 times higher than calculated by EPA? Is that
5 correct?

6 A. That's what it indicates and, sort of a
7 key to understanding these numbers, it says on a
8 plant-per-plant basis and refers to two facilities.
9 These are costs for, while it doesn't name them in
10 the comments, Cardinal plant, Kyger Creek plant for
11 the entire plants.

12 Q. So during your deposition we asked you if
13 you knew which plants they were referring to and you
14 did not. But you do now.

15 A. Yes. I've checked to make sure I knew
16 which plants were being referred to.

17 Q. Okay. So this was the cost estimate for
18 you're telling me Cardinal and -- now you're saying
19 this is the cost estimate for Cardinal and Kyger
20 Creek?

21 A. These costs are for Cardinal and Kyger
22 Creek that were developed two years ago based on the
23 proposed ELG rule.

24 Q. Okay. So if you refer to Sierra Club --
25 Confidential Sierra Club Exhibit 7, which is our

1 budgetary estimate spreadsheet, without revealing the
2 actual costs, sir, isn't it true that the costs
3 estimated with the ELG projects listed in this
4 spreadsheet are below the costs the EPA presented in
5 its comment letter to EPA? Correct?

6 MR. SATTERWHITE: Objection. Reread the
7 question. You said EPA to EPA.

8 Q. Let me redo it.

9 There's a lot of acronyms on this page.

10 MR. SATTERWHITE: Yes.

11 Q. Without revealing the actual costs, isn't
12 it true that the costs associated with the ELG
13 projects listed in this spreadsheet are below the
14 costs that AEP presented to its comment letter to
15 EPA?

16 A. Not necessarily. And, again, the costs
17 in the letter to EPA are based on plantwide, and so
18 Cardinal plant has three units, there's one unit in
19 this proceeding. So the costs associated for
20 Cardinal unit 1 on this spreadsheet would be only one
21 part of the costs for the entire plant.

22 So you need to kind of understand to do,
23 you know, an apples-to-apples comparison what the
24 costs in the comment letter represent. It's
25 plantwide costs for Cardinal; it's not Cardinal unit

1 1 by itself.

2 Q. And did you also talk about these are the
3 plants that cost -- and that comment letter was based
4 on Kyger Creek, correct?

5 A. Yeah, Kyger Creek and Cardinal as they
6 have wet fly ash disposal systems now and this would
7 be the cost of converting to dry fly ash handling.

8 Q. And that's below the estimate -- without
9 revealing the number, it's below the estimate
10 presented in the comment letter?

11 A. Again, without discussing the numbers
12 it's hard to answer the question, but I believe
13 they're generally consistent, and also factoring in
14 this was prepared two years ago and, as I indicated,
15 in our process we try to refresh and update our
16 costs, as we get better information. We've completed
17 dry fly ash conversions on two other AEP plants and
18 that provides useful information as we complete those
19 projects to update costs.

20 But my sense is they're generally
21 consistent.

22 Q. Okay. So the U.S. Environmental
23 Protection Agency just issued the final ELG rule
24 yesterday, correct?

25 A. That's correct.

1 Q. Are you as excited as I am that they
2 chose option 4?

3 A. I can't say that I know enough details to
4 know exactly which option they chose. I have a very
5 high level sense of what the final costs were.

6 Q. Okay. Are you familiar with option 4 as
7 being the second most stringent option proposed?

8 A. Again, I don't recall that specific
9 detail on the eight options that they initially
10 proposed.

11 Q. Is your general understanding that it was
12 on the more stringent side of the options considered,
13 the final rule?

14 A. Again, I don't recall which option
15 number.

16 Q. Have you heard that the final rule was
17 more stringent than some of the other options that
18 were put on the table?

19 A. The information I have on the final rule
20 is sort of a high-level summary of what it requires.
21 It does not compare the options, what was finally
22 selected compared to the -- I have not seen that
23 level of detail but just at a high level.

24 Q. Okay. Are you aware that the new rules
25 set stringent requirements for the discharge of

1 arsenic, mercury, selenium, and nitrogen in
2 wastewater streams from flue gas desulfurization?

3 A. I understand it sets standards, yes.

4 Q. Are you aware that the new final rule
5 requires discharge of pollutants in ash transport
6 water?

7 A. That's my understanding.

8 Q. Okay. So are you aware that that means
9 the dry handling, that's going to be required for fly
10 ash and bottom ash?

11 A. It doesn't necessarily mean that. It
12 means you can't discharge that water. From a
13 practical standpoint what that means for fly ash is
14 converting to dry fly ash handling and not using a
15 fly ash pond anymore.

16 For bottom ash my understanding is there
17 is potentially the opportunity to recycle water,
18 bottom ash transport water, and use it for other
19 purposes within the plant.

20 Q. Do you know what that would cost? This
21 recycling water system that you're describing.

22 A. No, I do not.

23 MS. HENRY: So I'm going to mark as
24 Sierra Club Exhibit 11 a copy of AEP's response to
25 Sierra Club interrogatory 6-157.

1 EXAMINER PARROT: So marked.

2 (EXHIBIT MARKED FOR IDENTIFICATION.)

3 MS. HENRY: May I approach?

4 EXAMINER PARROT: You may.

5 Q. Do you want a minute, sir?

6 A. Okay.

7 Q. So, Mr. McManus, I just handed you a copy
8 of AEP's response to Sierra Club interrogatory 6-157,
9 correct?

10 A. That's correct.

11 Q. And this response was prepared by you,
12 correct?

13 A. That's correct.

14 Q. Okay. Does it state that Cardinal 1,
15 Kyger Creek, and Stuart units use wet ash handling
16 for fly ash?

17 A. That's correct.

18 Q. And all but the Zimmer unit 1 use wet ash
19 handling for bottom ash, correct?

20 A. That's correct.

21 Q. Okay. So based on your understanding of
22 the rule from what we just went over for that bottom
23 ash, those facilities are going to have to either go
24 to a dry system or recycle the water; is that your
25 understanding?

1 A. Based on a very high-level summary that
2 was prepared within about two hours of EPA releasing
3 a 300-page rule. So it's my understanding that we're
4 going to have to deal with bottom ash transport
5 water.

6 Q. And for the Cardinal, Kyger, and Stuart
7 that use wet ash handling, those are going to have to
8 be converted to dry with no ponds, correct? Is that
9 your understanding we just talked about?

10 A. Which units again?

11 Q. I believe that in 6-157 you identified
12 Cardinal 1, Kyger Creek, and Stuart as using wet ash
13 handling for fly ash.

14 A. For fly ash, okay, with that
15 clarification, yes.

16 Q. And I believe that when we were having a
17 conversation earlier, if I'm correct, you said that
18 for fly ash your interpretation of the final rule is
19 that they would have to be moved to a dry handling
20 system and that there would be no ponds, correct?

21 A. For the ELG rule requirements, my
22 understanding, my expectation would be they would
23 have to move to dry ash handling, that the ELG rule
24 doesn't address what then happens with the existing
25 fly ash pond itself, but we would not be using that

1 pond anymore to dispose of fly ash.

2 Q. Okay. When we were speaking earlier, I
3 thought you said no pond. Was I -- did I mishear?

4 A. What I think I meant was you won't be
5 able to use a pond to dispose of the fly ash. You'll
6 have to handle it dry and dispose of it dry.

7 Q. Okay. Can you refer to Confidential
8 Sierra Club Exhibit 7 which is the budgetary
9 estimate.

10 A. Okay.

11 Q. Do you know if the projects listed in
12 these spreadsheets include the conversion of these
13 units from wet to dry ash handling?

14 A. There are projects on the list at
15 Cardinal for dry fly ash conversion, at Stuart dry,
16 ash handling conversion, and at Kyger dry, fly ash
17 conversion, so yes.

18 Q. And so for Kyger Creek I believe that you
19 said that for bottom ash -- am I correct, that for
20 bottom ash they would have to do recycling water? Is
21 that what you said, sir?

22 A. My understanding is the final rule has a
23 provision to allow for recycling that bottom ash
24 transport water for use elsewhere within the
25 facility.

1 Q. When we look at Kyger Creek, do you see
2 either converting the bottom ash from wet to dry or
3 having a recycling water system listed as a project?

4 A. What I see is the project for relining
5 the bottom ash pond and the costs associated with
6 that, and that would have been the sort of projection
7 looking at the whole ash rule, the Effluent
8 Limitation Guidelines Rule sort of combined, based on
9 the proposed rule, would there be a possibility of
10 continuing to use a bottom ash pond but having to
11 essentially reline it.

12 So, again, based on proposed rules, that
13 project would sort of anticipate those requirements.
14 Based on the final rule, we're going to have to
15 evaluate the full requirements of the final rule so
16 we can assess is there other approaches that could be
17 taken.

18 Q. Because we were just talking about the no
19 ponds, you thought there was going to be a no ponds,
20 correct?

21 A. Again, what I think I corrected was we
22 won't be able to use a fly ash pond to dispose of fly
23 ash.

24 Q. But if I'm looking at the spreadsheet, I
25 see -- I see fly ash here -- I don't see bottom ash

1 on this.

2 MR. SATTERWHITE: Just for clarification,
3 you're looking at the OVEC sheet, the last page?

4 MS. HENRY: Sure. I'm sorry, sir.

5 Q. So we're looking at Sierra Club
6 Confidential Exhibit 7, and if I look at Kyger Creek,
7 I don't see -- I don't see -- there's no bottom ash
8 conversion, correct?

9 A. That's correct.

10 Q. And I don't see -- I don't see a
11 recycling water system; is that correct?

12 A. That's correct. What's on the sheet in
13 sort of the last category, other ELG/CCR compliance,
14 there's a Kyger bottom ash pond reline project and a
15 Clifty west bottom ash pond reline project so there's
16 projects there that address the bottom ash ponds.

17 As I indicated, now that we have a final
18 rule, we're going to have to evaluate what the final
19 requirements are and the option that EPA selected and
20 determine, you know, what might be needed to comply.
21 This is based on proposed rules.

22 Q. So these costs could change.

23 A. Again, I think I indicated before the
24 costs could change for a lot of reasons, some related
25 to the final requirements, some related to just

1 implementation schedules, some related to having
2 better information and refining our costs.

3 Q. Are you aware that the new final rule
4 establishes zero discharge pollutant limits for flue
5 gas desulfurization control wastewater?

6 A. I do not know if it requires that or not.

7 Q. Do you know how many of the PPA rider
8 units use zero discharge for flue gas desulfurization
9 mercury control wastewater?

10 A. I would be surprised if they did, but I
11 don't know for sure.

12 Q. You don't know.

13 A. For the AEP units, for the OVEC units,
14 they don't use zero discharge. I don't think Zimmer
15 and Stuart do, but I don't know for sure for those
16 plants.

17 Q. Okay. So the Cross-State Air Pollution
18 Rules, are you familiar with that rule, sir?

19 A. Yes.

20 Q. That rule established state-specific
21 annual emission budgets for sulfur dioxide and annual
22 and seasonal budgets for nitrogen oxides, correct?

23 A. That's correct.

24 Q. And, based on this budget, each emitting
25 unit within each affected state is allocated a

1 specific number of sulfur dioxide and nitrogen oxide
2 allowances for their applicable compliance periods,
3 correct?

4 A. That's correct.

5 Q. And allowance trading within a state is
6 allowed and on a regional basis, but the rule does
7 contain assurances intended to increase compliance
8 costs for any state that imports allowances beyond a
9 certain threshold, correct?

10 And I can refer you to your direct
11 testimony, page 6, line 22, going on to page 7.

12 A. That's what it says, yes.

13 Q. And CASPR Phase 1 emission budgets start
14 in 2015; is that correct?

15 A. Yes.

16 Q. And CASPR Phase 2 emission budgets start
17 in 2017.

18 A. That's correct.

19 Q. And you state that the PPA rider units'
20 current emission control technologies in conjunction
21 with the availability of emission allowances in the
22 market position the PPA rider units for compliance
23 with CASPR; is that correct?

24 A. That's what I indicated and that's my
25 judgment, yes.

1 Q. Now, did you look at historical emissions
2 for the PPA rider units and compare it to the 2015
3 CASPR allocations to see whether the emission
4 allowances would be required?

5 A. I did not.

6 Q. Okay. And do you know how many units
7 exceed their nitrogen oxide 2015 allowances?

8 A. I don't. We're still in 2015, so we
9 don't have complete emissions data to make that
10 comparison.

11 Q. Okay. Did you look at historical
12 emissions of these units to see how many are going to
13 likely exceed their nitrogen oxide allowances for
14 2015?

15 A. I did not, and historical emissions could
16 be misleading because the CASPR program was not in
17 effect until this year. It was a different program
18 that was in effect and it, under the Clean Air
19 Interstate Rule that units would have operated
20 towards, so the historical information may or may not
21 be relevant to how you would operate under the
22 cross-state rule.

23 Q. Did you do any analysis to figure out if
24 any of these PPA units are likely to exceed their
25 nitrogen oxide 2015 allowances?

1 A. I did not. This is based on my
2 understanding of the structure of the program, the
3 flexibility allowed by an allowance system, the
4 ability to -- if a specific unit exceeds its
5 allowance allocation, to obtain allowances from other
6 sources. In fact, there's been a large number of
7 units that have been retired this year for various
8 reasons that have allowance allocation that there
9 would be a robust allowance market. And so based on
10 that my judgment is -- and the controls that are
11 installed on these units, my judgment was that these
12 units are well positioned for the cross-state rule.

13 Q. So did you do any kind of analysis to
14 figure out if your judgment was right?

15 A. I didn't do an analysis. I've talked
16 within the last week or so with OVEC management and
17 with people within AEP Generation Resources who are
18 responsible for looking at that to get a sense for
19 what they're seeing; what they indicated confirms my
20 overall judgment.

21 Q. So do you know if these units are going
22 to exceed their 2015 allowances?

23 A. I don't know, but I'm confident that we
24 will be in compliance. These units will be in
25 compliance with the cross-state rule because of the

1 structure of the rule and the ability to use
2 allowances from other sources. If your unit-specific
3 emissions exceed your allowance allocation.

4 Q. And did you do any analysis to see if the
5 emissions from the PPA rider units are going to --
6 how they're going to compare with the 2017 CASPR
7 allocations to determine whether you'll need to
8 purchase emission allowances or AEP will need to
9 purchase emission allowances?

10 A. I have not.

11 Q. Okay. Do you know how many of the units
12 are likely to exceed their 2017 allowances?

13 A. I do not.

14 Q. Do you know the going price for a
15 nitrogen oxide allowance?

16 A. I do not.

17 Q. Do you know the going price for a sulfur
18 dioxide allowance?

19 A. I do not.

20 Q. Do you know whether it's cheaper to make
21 additional investments in the coal plants -- let me
22 rephrase that.

23 You don't know whether it's cheaper to
24 make additional investments in these coal plants or
25 to continually buy allowances; is that correct?

1 A. Again, unit-by-unit what the allowance
2 needs are compared to emissions are going to vary
3 but, in general, I don't know what you had indicated.

4 Q. Okay. Did you do any analysis -- so you
5 did no analysis to determine whether Clifty Creek 6
6 will require the installation of additional nitrogen
7 oxide controls to comply with CASPR; is that correct?

8 A. I did not. I talked to OVEC
9 environmental management and got their sense of how
10 those units are positioned and the ability with five
11 of the six units at Clifty having SCR controls, with
12 Kyger Creek having SCR controls, their sense is where
13 their fleet stands in the context of the cross-state
14 rule, and they indicated they believe they're in good
15 position.

16 Q. Okay. When did you have those
17 conversations, sir?

18 A. A week or so go.

19 Q. A week or so go, so approximately five
20 months after you submitted your testimony?

21 A. Again, I indicate the testimony is based
22 on my judgment and my understanding of how these
23 allowance programs are structured. The fact that
24 these units have some form of nitrogen oxide or SO2
25 controls on all of the units, specific controls vary

1 by unit, but just my sense that they're well
2 positioned to be in compliance in the context of a
3 regional allowance-based compliance program.

4 Q. And that compliance would have a cost
5 associated with it, correct?

6 A. To the extent that operating the controls
7 has a cost associated with it, that's one cost
8 associated with being in compliance.

9 Q. Well, you never looked at whether these
10 units have to buy allowances, whether Clifty Creek 6
11 is going to need to install additional
12 pollution-control equipment, so, I mean, you're
13 saying yes, they can comply, and I understand that
14 generally we can do things to comply.

15 My question is did you do any analysis to
16 figure out how much, you know, what the compliance
17 pathway is. Do these units need to purchase
18 allowances? Do these units need to install
19 additional controls?

20 MR. SATTERWHITE: Objection. I'm not
21 sure how many questions were there, I lost count.

22 Q. Did you do any analysis to determine --

23 A. I did not do that analysis.

24 MS. HENRY: I want to mark a copy of
25 Sierra Club Exhibit 12. I'd like to mark as Sierra

1 Club Exhibit 12 a copy of OVEC's annual report from
2 2014.

3 EXAMINER PARROT: So marked.

4 (EXHIBIT MARKED FOR IDENTIFICATION.)

5 MS. HENRY: May I approach?

6 EXAMINER PARROT: You may.

7 Q. Let me know when you're ready, sir.

8 A. Okay.

9 Q. So what is the name of this document?

10 A. The cover page says "Annual Report-2014,
11 Ohio Valley Electric Corporation and subsidiary
12 Indiana-Kentucky Electric Corporation.

13 Q. And you have seen this document before,
14 correct?

15 A. Yes, I have.

16 Q. Okay. And as of your deposition, you had
17 not read this document, correct?

18 A. That's correct.

19 Q. But you did see it because you got a copy
20 of it, correct?

21 A. That's correct.

22 Q. Before your deposition.

23 A. Yes.

24 Q. Okay. And are you aware that OVEC states
25 in this document that additional controls may be

1 required at Clifty Creek unit 6?

2 A. Do you have a specific page reference?

3 Q. Yeah. Let's go to page 29, the third
4 paragraph, the first sentence. Is it correct that it
5 states that the purchase of additional NOx allowances
6 or the installation of additional NOx controls may be
7 necessary for Clifty Creek 6 either under CASPR rule
8 or any future NOx regulations? Correct?

9 A. That's what it says, yes.

10 Q. Do you know, were the cost of emission
11 allowances included in Mr. Thomas's budgetary
12 estimates?

13 A. Again, to the extent that you're
14 referring to the spreadsheet of capital costs --

15 Q. Yes, sir.

16 A. -- there's not allowances in there.
17 That's not a capital cost.

18 Q. Do you know if the allowances were
19 included in the O&M or would they be in the operation
20 and maintenance or variable costs?

21 A. I don't know how that was treated in the
22 modeling -- in the forecasts.

23 Q. Can you --

24 A. I don't know how that was treated in the
25 forecasts.

1 Q. Okay. But you would consider the
2 allowances -- you would either need to account for
3 allowance costs in the variable and O&M costs or you
4 would have to have a capital cost, correct?

5 A. I'm not sure exactly what you're asking.

6 Q. Okay. So for -- so OVEC has identified
7 at least Clifty Creek as having compliance issues,
8 correct, with CASPR?

9 A. No, it doesn't say they have compliance
10 issues. I believe they'll be in compliance.

11 Q. Okay. Does it indicate that they would
12 have to take additional actions for Clifty Creek 6 to
13 be in compliance with CASPR?

14 A. It indicates they may need to. It
15 doesn't say they definitely will have to.

16 Q. And do you know if Mr. Thomas included
17 either capital expenditures or O&M costs for
18 either -- for allowances?

19 A. Mr. Thomas doesn't deal with OVEC.

20 Q. So who deals -- so the OVEC estimates
21 were given to you?

22 A. They presumably were given to Dr. Pearce
23 to include in his modeling.

24 Q. Okay. Did anybody review those estimates
25 to see if there was inclusion of allowance costs?

1 A. I don't know if Dr. Pearce did or not.

2 Q. Okay. Did anybody review those to see if
3 additional capital expenditures were included as they
4 mentioned may be necessary in this document for
5 Clifty Creek 6?

6 A. To the extent that the table that we've
7 looked at for OVEC does not have capital for this,
8 then I would say there's not capital anticipated.

9 Q. Okay.

10 A. OVEC believes that they will be able to
11 comply with the cross-state rule with the controls
12 they have in place, the allowances that they're
13 allocated, and the ability to go to an allowance
14 market.

15 Q. Do you --

16 A. The statement says they may need to do
17 something additional at some point in the future.
18 It's sort of a forward-looking disclosure-type
19 statement is my understanding.

20 Q. If I'm understanding correctly, isn't
21 that the purpose of your testimony, that
22 forward-looking may analysis? Correct?

23 A. Yes.

24 Q. Because this Commission has requested to
25 know how are these units going to be positioned to

1 comply, correct?

2 A. Yes.

3 Q. Okay. Now, with regard to the AEPGR
4 units, do you know if Mr. Thomas included a cost for
5 allowances in the estimates that he gave to
6 Mr. Pearce?

7 A. I don't know.

8 Q. So you don't know -- you're not aware of
9 anybody looking at the emissions to see if allowances
10 would be needed, correct?

11 A. Well, as I indicated, there are people in
12 AEP Generation Resources whose job is to look at
13 their allowance allocation, their emissions, to
14 project out, so they have done that. How any
15 allowance cost has been handled in the economic
16 modeling, that's really a question for Dr. Pearce, I
17 believe.

18 Q. Okay. But if we look at the
19 spreadsheets, there's no CASPR allowance cost in
20 Sierra Club Confidential Exhibit 7, correct?

21 A. That exhibit deals with capital costs, so
22 I wouldn't expect to see allowance costs on that.

23 Q. And you're not sure if they're in another
24 area.

25 A. Again, Dr. Pearce would know how he

1 handled it in his modeling. I'm not sure.

2 Q. Okay. So the U.S. Environmental
3 Protection Agency establishes National Ambient Air
4 Quality Standards for six criteria pollutants; is
5 that correct?

6 A. That's correct.

7 THE WITNESS: Is it possible to take a
8 short break?

9 MS. HENRY: Oh, yeah. Sorry.

10 THE WITNESS: Before we get into another
11 area.

12 EXAMINER PARROT: Are you segueing?

13 MS. HENRY: I'm going to go into a whole
14 new regulation.

15 EXAMINER PARROT: This is a good point,
16 then to take a ten-minute break. Off the record.

17 (Recess taken.)

18 EXAMINER PARROT: Let's go back on the
19 record.

20 Q. (By Ms. Henry) Let's talk about ozone
21 next. So the U.S. Environmental Protection Agency
22 established its National Ambient Air Quality
23 Standards for six criteria pollutants; is that
24 correct?

25 A. That's correct.

1 Q. And the U.S. Environmental Protection
2 Agency is required to evaluate each of these
3 standards every five years to ensure that they are
4 stringent enough to protect public health, correct?

5 A. That's correct.

6 Q. And you are aware that the U.S.
7 Environmental Protection Agency issued or is expected
8 to issue a new ozone National Ambient Air Quality
9 Standards today, correct?

10 A. My understanding is they're expected to
11 announce their decision today on whether they're
12 revising the standard or leaving the existing
13 standard in place.

14 Q. And if I refer to this as the ozone
15 NAAQS, would you understand what I mean?

16 A. Yes, I would.

17 Q. And you acknowledge that the new ozone
18 standard could have potential compliance implications
19 for the PPA rider units; is that correct?

20 A. Again, depending on what EPA's decision
21 is today, if they do revise the standard, then there
22 is a potential that there will be imbalance.

23 Q. And so you're aware that EPA proposed a
24 new ozone NAAQS standard of between 65 and 75 parts
25 per billion, correct?

1 A. I believe they proposed 65 to 70. The
2 current standard is 75. They asked for comments on
3 either retaining the current standard or actually
4 even going below 65.

5 Q. I believe I did say 65.

6 A. Right, but you said 75, I think.

7 Q. No, I said so you're aware EPA proposed a
8 new NAAQS standard between 65 and 70 parts per
9 billion, correct?

10 A. Yes.

11 Q. And they're accepting comments on an even
12 lower standard of 60 parts per billion, correct?

13 A. Correct.

14 Q. And you're aware that EPA, the current
15 standard is 75 parts per billion for the ozone NAAQS,
16 correct?

17 A. That's correct.

18 Q. So the proposal is lower than the current
19 standard, correct?

20 A. The proposed range is lower than the
21 current standard.

22 Q. And you've done no analysis about whether
23 the new ozone NAAQS would create compliance problems
24 at any of the PPA rider units, correct?

25 A. When EPA sets an air quality standard

1 under that part of the Clean Air Act, it doesn't
2 establish requirements for any source category
3 itself. It sets a standard for ambient air, the air
4 outside that you breathe.

5 It starts a process that's a multiyear
6 process that involves U.S. EPA and the states to
7 determine what areas meet that standard, what areas
8 don't meet that standard, what sources may contribute
9 to not meeting the standard, what reductions are
10 needed, and to develop a plan and schedule for that.

11 So when they announce the standards, it's
12 the first step of a lengthy and complex process.

13 Q. So after they announce a new standard,
14 the next step is the EPA designates areas as either
15 attainment, nonattainment, or unclassifiable,
16 correct?

17 A. The states working with EPA make those
18 designations, yes.

19 Q. And then if an area is designated as
20 nonattainment, then the state has an obligation to
21 create something called a nonattainment statement
22 implementation plan, correct?

23 A. That's correct.

24 Q. And when a state creates a nonattainment
25 state implementation plan, they come up with a plan

1 to bring that area into attainment, correct?

2 A. A plan and a schedule, yes.

3 Q. And they have to bring down the ambient
4 air quality emissions so that it meets the new
5 standard established for the NAAQS, correct?

6 A. You used the term "ambient air quality
7 emissions."

8 Q. Oh, ambient air quality.

9 A. Yeah, that the plan would result in the
10 ambient air quality being lower to meet the new
11 standard, correct.

12 Q. And when the state is creating that
13 nonattainment state implementation plan, what they do
14 is they determine the sources that cause or
15 contribute to a violation of the NAAQS, correct?

16 A. Correct.

17 Q. Have you looked at any of the ozone
18 monitoring data for the counties in which the PPA
19 rider plants are located to see if there would be
20 nonattainment issues based on the proposed range in
21 the new ozone NAAQS?

22 A. I have not, with the exception of the
23 document that was put before me in my deposition.

24 Q. Well, that's a great segue, Mr. McManus.

25 A. I thought you may go there.

1 MS. HENRY: I'd like to mark as Sierra
2 Club Exhibit 13 "Counties Violating the Primary
3 Ground-Level Ozone Standard Based on Monitored Air
4 Quality from 2011 to 2013."

5 EXAMINER PARROT: So marked.

6 (EXHIBIT MARKED FOR IDENTIFICATION.)

7 MS. HENRY: May I approach?

8 EXAMINER PARROT: You may.

9 Q. Mr. McManus, do you know what agency
10 administers the Clean Air Act?

11 A. It's basically administered jointly
12 between U.S. EPA and state environmental agencies and
13 potentially sometimes local environmental agencies.

14 Q. But the federal agency is the U.S.
15 Environmental Protection Agency?

16 A. Yes.

17 Q. And do you know that when the U.S.
18 Environmental Protection Agency proposes a new rule,
19 it puts that proposed rule on its website? Do you
20 know that?

21 A. That's a practice that they typically
22 use, yes.

23 Q. And are you familiar with the fact that
24 when they put a proposed rule on their website, they
25 also put other information associated with the

1 proposed rule to help people understand the
2 implications of the proposed rule?

3 A. Yes, they often do that.

4 Q. Now, this table that I've just presented
5 you, sir, this was obtained by going to the web page
6 for the proposed standard, and the web page provides
7 an interactive map which shows under their proposed
8 rule which areas would be in attainment and which
9 areas would be in nonattainment, and they also have
10 this handy table that shows you which counties in the
11 United States would be impacted by the proposed rule.

12 Now the web address where I obtained this
13 document is located in the footer of the document and
14 the date which I obtained it is also in the footer of
15 this document. Do you see that, sir?

16 A. Yes, I do.

17 Q. Do you have any reason to doubt the
18 authenticity of this document?

19 MR. SATTERWHITE: Objection, your Honor.
20 Or, sorry, go ahead and answer.

21 A. I will accept that that was the source
22 for the document.

23 Q. And do you agree that EPA typically when
24 they give you a proposed National Ambient Air Quality
25 Standard that has a lower range, they usually look

1 and see which counties this would impact, correct?

2 A. Usually. I'm not sure they do this all
3 the time. Again, they don't change standards that
4 frequently. But I have seen them do that before,
5 yes.

6 Q. And they do that because people in those
7 counties, that allows interested parties the ability
8 to comment, correct, on the proposed rule?

9 A. That could be one purpose, yes.

10 Q. Okay. So let's look at the first page of
11 this document, and there's a legend at the top of it.
12 Do you see that, sir?

13 A. Yes, I do.

14 Q. Okay. And that indicates that areas that
15 are not shaded, those are areas that are not going to
16 violate their proposed range of standards, correct?

17 A. That's what the legend indicates. In
18 terms of how you use this, it's based on historical
19 data, which you can see in the right column, so it's
20 really comparing that historical data to their
21 proposed range. It's not a projection of what --
22 where these areas may be in the future as states and
23 EPA are determining what areas in the future don't
24 attain the standards.

25 So it's based on historical information.

1 I wouldn't view it as a projection that these areas
2 in the future will violate or exceed the standard.

3 Q. And let's look at the top. Does the top
4 of it say that it's based on monitoring air quality
5 data from 2011 to 2013; is that correct?

6 A. That's what it indicates, yeah.

7 Q. So this appears to be a compilation of
8 the monitoring data for those -- for that time
9 period, correct?

10 A. That's what it indicates, yes.

11 Q. And are you familiar with the fact that
12 when the U.S. Environmental Protection Agency is
13 going through the process of designating areas as
14 attainment, nonattainment, or unclassifiable, that
15 they rely on the monitoring data to make those
16 designations? Correct?

17 A. That's one source of information they
18 rely on to make designations, that's correct.

19 Q. So basically when there's a violating
20 monitor, an area would get designated as
21 nonattainment, correct?

22 A. It might. The state can look at what
23 factors they're addressing that may be contributing
24 to that, they may be able to look at what might be
25 changing it and, again, this wouldn't necessarily be

1 the data that would be used if EPA does announce
2 today they're going to lower the ozone standard, and
3 the multiyear process I mentioned, to determine
4 nonattainment areas, there may be more recent data
5 than 2011-2013. So this is an indicator but it's not
6 a predictor I guess is how I would view it.

7 Q. Let's just clarify one thing, sir. So
8 when EPA is making a nonattainment designation, they
9 base that nonattainment designation based on
10 monitoring data, correct?

11 A. They can use monitoring data to base that
12 designation.

13 Q. And then when the state has an obligation
14 to do a nonattainment state implementation plan,
15 that's when you're talking about maybe these
16 projections would come in about what they would model
17 to show attainment, correct?

18 A. That's correct, but, again, the point I
19 was trying to make is they wouldn't necessarily use
20 this 2011 to 2013 data to do the designations.

21 Q. Yes.

22 A. We have 2014 data now. There will be
23 2015. They want to use the most current picture of
24 air quality in making the designations so, again, to
25 me a document like this is an indicator of areas

1 that, based on historical data, how they compare to
2 the proposed.

3 Q. Okay. Now, would you agree that the
4 dark -- let's look at the colors again, the legend,
5 and would you say that there's three different
6 colors, and would you agree that the darker blue
7 legend indicates that when you see that color, it
8 indicates that it would violate the 70 parts per
9 billion proposed ozone NAAQS?

10 A. That's what the legend indicates.

11 Q. And then that lighter blue, would you
12 agree that that indicates that that violates the 65
13 parts per billion proposed ozone NAAQS?

14 A. That's what the legend indicates based on
15 2011 to 2013 data.

16 Q. Okay. So let's -- this is a large
17 document but I'm going to have you turn until you get
18 to Ohio, and I'm sorry but it doesn't have page
19 numbers. So the Ohio counties, they span two pages,
20 correct?

21 A. Correct.

22 Q. And just so I'm looking at this, when I
23 look at Ohio, I don't see any county in Ohio that has
24 no shading; am I correct?

25 A. That's correct.

1 Q. So every county in Ohio would violate
2 under one of the -- in the proposed range, correct?

3 MR. SATTERWHITE: Objection. I believe
4 the witness stated earlier that you can't use this as
5 a projection of violation, that these are past
6 numbers, so...

7 Q. Does this table indicate that every
8 county in Ohio would, based on this historical
9 information, be placed as a nonattainment area?

10 A. I don't know that I'd state it that way.
11 It indicates that based on the historical data these
12 counties exceeded the proposed standard at either the
13 high level, the low level in the county.

14 Q. Okay. Now, remember how we were talking
15 about the legend earlier, sir?

16 A. Yes.

17 Q. And the darker blue, that indicates the
18 more lenient standard, correct? Because that's the
19 70 parts per billion, correct?

20 A. The darker shading does represent the 70
21 parts per billion standard.

22 Q. And then the lighter shading is, you
23 know, the more stringent standard, correct?

24 A. The lighter shading reflects the 65 parts
25 per billion number based on the legend, yes.

1 Q. So, based on the 2011 to 2013 monitoring
2 data, almost -- most of the states in Ohio are of
3 that darker shading meaning that they would not be in
4 compliance if EPA selected the more lenient proposal,
5 correct?

6 MR. SATTERWHITE: Objection again, your
7 Honor, I believe the question should be phrased as if
8 the standard were in place at that time. She's
9 trying to use the standard for future projections
10 where we don't know what the air quality's going to
11 be. This is vintage data.

12 There's an objection pending, John, so
13 wait a second. Wait for the Bench.

14 EXAMINER PARROT: I think as posed the
15 question was clear that she's basing it on the fact
16 that this is 2011 to 2013 monitoring data. So I
17 think we're okay.

18 MR. SATTERWHITE: So just so we're clear
19 it's not future compliance, it's based on past.

20 EXAMINER PARROT: Yes.

21 MR. SATTERWHITE: Thank you.

22 EXAMINER PARROT: And that I think is
23 reflected in her question.

24 THE WITNESS: Could you reread the
25 question.

1 (Record read.)

2 MR. DARR: Could I have the first part of
3 that reread, please?

4 MS. HENRY: I believe I may have
5 misspoke. States not counties.

6 MR. DARR: States.

7 (Record read.)

8 Q. (By Ms. Henry) I would like to change
9 "states" to "counties," sir.

10 A. Okay. So the table indicates to me that
11 for the counties in Ohio that they have monitoring
12 data, most of them, their monitoring indicates they
13 would exceed -- they have data that exceeds the 70
14 part per billion standard that EPA's proposed.

15 EXAMINER PARROT: Are all of the counties
16 in Ohio reflected in this table, Mr. McManus, if you
17 know?

18 THE WITNESS: My limited understanding of
19 Ohio structure, I believe there's 88 counties in
20 Ohio. There's not 88 counties on this list.

21 EXAMINER PARROT: I believe you're
22 correct. Thank you for that clarification.

23 Q. So is this table -- so this table shows
24 that Clermont County for 2011 to 2013 ozone
25 monitoring data, that it has an average concentration

1 of 79 parts per billion; is that correct? It's on
2 the first page of Ohio, last line.

3 A. Yes. Yeah, the table shows Clermont
4 County as a three-year average concentration of 79.

5 Q. Parts per billion.

6 A. Parts per billion, yes.

7 Q. And are you aware that the Zimmer plant
8 is located in Clermont County?

9 A. Yes, I am.

10 Q. And the 79 parts per billion would exceed
11 the proposed range proposed by EPA, correct?

12 A. Again, based on this historical data that
13 average concentration is above the proposed range by
14 EPA.

15 Q. Okay. Let's look at Clinton County, sir.
16 And does -- Clinton County has an average
17 concentration of 78 averaged over the 2011 through
18 2013 monitoring data years?

19 A. That's what the table indicates.

20 Q. And does this table show that Warren
21 County for the 2011 to 2013 ozone monitoring data
22 showed an average concentration of 76 parts per
23 billion? Is that correct?

24 A. That's what it indicates.

25 Q. And are you aware that Stuart is located

1 in Brown County which is next to Clermont and Clinton
2 and Warren Counties?

3 A. No, I don't know what counties Stuart is
4 in.

5 Q. Are you aware that Stuart is located --
6 let me see.

7 And this shows that Licking County, the
8 2011 through 2013 ozone monitoring data showed an
9 average concentration of 73 parts per billion; is
10 that correct?

11 A. That's what that table indicates.

12 Q. Okay. And does this table also show that
13 Knox County for the 2011 and 2013 ozone monitoring
14 data that showed an average concentration of 73 parts
15 per billion; is that correct?

16 A. That's what the table indicates.

17 Q. And are you aware that Conesville is
18 located in the county which borders Licking and Knox
19 counties?

20 A. I don't know that for certain. My Ohio
21 geography isn't the greatest, I'm sorry.

22 Q. This table also shows that Clark County
23 for the 2011 to 2013 ozone monitoring data showed an
24 average concentration of 75 parts per billion; is
25 that correct?

1 MR. SATTERWHITE: Your Honor, at this
2 point I'll object. She's just asking the witness to
3 reread a document that she's only authenticated
4 herself, that she gathered it. He can keep saying
5 that's what it says, but this witness can't
6 sponsoring this information.

7 EXAMINER PARROT: Response?

8 MS. HENRY: The witness has acknowledged
9 that the ozone National Ambient Air Quality Standard
10 could have impacts on the PPA rider units. When the
11 Commission issued its ESP III order, they
12 specifically wanted to know what are the compliance
13 obligations and how are these plants going to be
14 positioned to comply with future environmental
15 regulations.

16 I'm trying to show that the witness did
17 not do a thorough analysis by showing him there was
18 information out there to show a potential problem,
19 and if they wanted to do a full disclosure to the
20 Commission, they would have done their research to
21 see that this could lead to additional capital costs
22 at these facilities. I'm going to have to lay my
23 case for that.

24 MR. SATTERWHITE: If I may, your Honor,
25 that's why there's testimony for intervenors.

1 Mr. McManus's testimony was filed on May 15th.
2 Sierra Club could have put all of this in their
3 testimony rather than have their attorney show up and
4 testify today. The document that was provided in
5 deposition didn't even have a website on the bottom
6 of it. That was supposed to be provided to us so we
7 could track this documents.

8 All she's done today is say here's a
9 document that she's purporting she created and put in
10 front of the witness and the witness has said here's
11 what's on there. That's all we have from this
12 record. There's no authentication for this and we're
13 not sure of the reference.

14 MS. HENRY: I would just note that you
15 could take judicial notice of this. This is a
16 document from the federal government. I have the
17 address of where it can be obtained on the bottom of
18 the document. You can go and verify that this is on
19 a website of the federal government.

20 MR. SATTERWHITE: Which was asked for in
21 the deposition and not provided to AEP. And the
22 witness, all she has now is the witness reading the
23 numbers.

24 EXAMINER PARROT: I agree. I think we've
25 heard enough of just reading it into the record at

1 this point. Do you have other questions about it
2 that you wish to put to the witness, Ms. Henry?
3 Otherwise I think we need to move on at this point.

4 Q. (By Ms. Henry) Sure. So you've done no
5 analysis to determine whether additional controls
6 could be required of the PPA rider units if the ozone
7 standard is tightened to 65 or 75 parts per billion;
8 is that correct?

9 A. Could you repeat that?

10 Q. Sure. You have done no analysis to
11 determine whether additional controls would be
12 required at the PPA rider units if the ozone standard
13 is tightened to 65 or 70 parts per billion, correct?

14 A. As I indicated, when EPA establishes a
15 new standard, it starts a lengthy process by which
16 the states and EPA work together to determine what
17 areas meet the standard, what areas don't meet the
18 standard, what sources contribute to that, what
19 reductions might be needed.

20 Setting the standard itself doesn't
21 establish requirements and particularly an ozone
22 standard in the broad range of source categories that
23 can contribute to the formation of ozone. It doesn't
24 set standards specific to any one source.

25 And so that makes it difficult to do an

1 analysis. Just because a standard is tightened
2 doesn't mean automatically that any particular source
3 category is going to see different requirements so it
4 makes it hard to do such an analysis.

5 Q. So did you do any -- even if it's a
6 difficult analysis, did you do any analysis?

7 A. There's no way to do the analysis that I
8 can see.

9 Q. Do you think it would have been helpful
10 to look at monitoring data to see if -- to see if you
11 have facilities located in an area that would be in a
12 nonattainment area?

13 A. To the extent that the numbers on this
14 document represent historical data, it doesn't mean
15 that these are nonattainment areas, will be
16 nonattainment areas. The process will use more
17 updated information. It's my understanding ozone air
18 quality in 2014 was significantly improved across the
19 eastern part of the country. 2015 data is not all in
20 yet. The process will be used to determine what
21 areas achieve a standard or not will be based on
22 different data than here.

23 So does that automatically indicate a
24 nonattainment area? No, it doesn't.

25 Q. Did you do any modeling to determine if

1 the emissions that the PPA rider units emit would
2 cause or contribute to ambient air quality standards
3 exceeding these limits?

4 A. No, we have not.

5 Q. And so I understand that it may be
6 difficult, but there is a way that you could have
7 done an analysis to see whether, number one, we could
8 have looked at data to determine are these plants
9 located in areas that would be designated as
10 nonattainment, correct?

11 MR. SATTERWHITE: Objection, your Honor.
12 I think the witness has explained the difficulty of
13 what and why he didn't do what he did or didn't do.
14 I think we're just rehashing it now.

15 EXAMINER PARROT: I'll allow the
16 question.

17 THE WITNESS: Okay. Can you repeat the
18 question?

19 (Record read.)

20 A. I'm afraid I don't understand the
21 question now that I've heard it again.

22 Q. I believe that when we were discussing
23 your job responsibilities earlier, we talked about
24 how your -- your department looks at the -- if
25 there's enough information available to determine if

1 there would be potential compliance problems for your
2 facilities, correct?

3 A. Correct.

4 Q. Okay. And I'm saying there is -- EPA has
5 put information out there about its new standard,
6 correct?

7 A. The EPA has information out about a
8 proposed standard. They've not announced their final
9 decision yet.

10 Q. Correct.

11 And they put information out there about,
12 under their projection, which counties would be
13 designated as nonattainment under -- in the different
14 ranges that they are proposing, correct?

15 A. I don't know that they've put information
16 out indicating what designations will be made.
17 That's a future process.

18 Q. Did EPA put information out saying that
19 these are the areas that would -- these are the
20 counties that would likely be impacted by the
21 proposed standard?

22 MR. SATTERWHITE: Objection, your Honor.
23 Now we're getting back into the document that was
24 just authenticated with a speech by counsel. The
25 witness stated he's not sure what this document is,

1 that there's an address on the bottom. Now she's
2 trying to purport how this was used by the EPA, and
3 the witness hasn't established that he understands
4 that.

5 MS. HENRY: I believe he said it would be
6 a difficult process. I am not an environmental
7 regulatory expert as a vice president, but I'm just
8 walking through a laymen's way of doing an analysis.

9 MR. SATTERWHITE: If I may, your Honor.

10 MS. HENRY: He said it would be a
11 difficult process, and I just want to show it's not
12 as difficult as he presumes.

13 MR. SATTERWHITE: Your Honor, my
14 objection is simply she's using this document now to
15 say -- to say this is exactly from the EPA and it was
16 to show a specific purpose. That's not been
17 established in this case. And this witness said
18 there's a lot of things you'd have to look at and it
19 deals with looking at the entire area, not just one
20 facility.

21 So I'm not sure how that answer replied
22 to my objection.

23 EXAMINER PARROT: I'm going to allow the
24 question as it was posed to the witness.

25 THE WITNESS: Okay.

1 EXAMINER PARROT: I don't think it
2 referred to a specific document.

3 MR. SATTERWHITE: Thank you.

4 THE WITNESS: Could you read it again.
5 (Record read.)

6 A. To the extent it references to this
7 document, EPA put information out, it has historical
8 air quality data, and compared it to the proposed
9 standard. It's an indicator of an issue but
10 potentially a nonattainment issue. It's not a
11 predictor that these counties will be nonattainment
12 or conversely that any county that isn't on this list
13 might be attainment or nonattainment.

14 Q. So any entity could look at this
15 information to see if the likely new rules would
16 impact them, correct?

17 A. Again, as an indicator, you could look at
18 this and get an indication of where counties here
19 that have monitoring data, how that historical data
20 compares to the proposed standard.

21 Q. And you understand that the standard when
22 they were going to do a nonattainment SIP is whether
23 a source causes or contributes to the exceedance of a
24 NAAQS, correct? We established that earlier.

25 A. Correct.

1 Q. So there's a way that a facility could
2 have looked at the actual monitoring data to see am I
3 causing or contributing to that exceedance, correct?

4 A. I indicated it was a complex process.
5 You might be able to do that, but in the case of
6 ozones, ozone isn't emitted by any source. Ozone is
7 formed in the atmosphere from other pollutants that
8 are emitted, nitrogen oxides, volatile organic
9 compounds. That's a broad range of sources that emit
10 those.

11 Transportation, cars and trucks, dry
12 cleaners, chemical plants, refineries, power plants
13 for nitrogen oxide.

14 To try and do all the modeling associated
15 with that is a pretty difficult undertaking and in
16 the case of ozone it would need to be done on a
17 regional basis. And so is it reasonable to expect to
18 do that at this stage in this process that we would
19 have done that? I don't think that's reasonable.
20 It's a very complex process. It would take a number
21 of years, and the first step is to determine, based
22 on the most current data, what areas are exceeding
23 whatever final standard EPA announces, presumably
24 today, what areas aren't and then start that complex
25 analytical process that the states will engage in.

1 Q. Do you think that if a commission
2 requests specifically for a utility to let them know
3 how they're going to be able -- how their PPA rider
4 units are expected to comply in the future with
5 environmental regulations, that would change the
6 analysis that would normally be done by a utility?

7 THE WITNESS: Could you reread that.

8 (Record read.)

9 A. I don't know that it would change the
10 analysis. I mean, we like to, you know, look ahead
11 as we imagine any of our facilities and anticipate
12 what's coming down the road and do what analysis we
13 could do to try and anticipate that. So -- and the
14 Commission asking for that, it's an appropriate thing
15 to ask for. Does it change what we do? I think we
16 try and look forward in a general way for all of our
17 facilities.

18 Q. Can you refer to Confidential Sierra Club
19 Exhibit 7.

20 A. If you could remind my which one that is.
21 I don't have numbers on these.

22 Q. That is the budgetary estimate.

23 A. Okay.

24 Q. So if I review this, do you see the ozone
25 NAAQS listed as one of the relevant environmental

1 drivers?

2 A. I don't see the ozone NAAQS listed. I do
3 see Clean Air Interstate Rule and NOx SIP Call
4 listed. Those are two regulations that address NOx
5 emissions from these facilities.

6 Q. So you don't see the ozone NAAQS listed;
7 is that correct?

8 A. That's correct.

9 Q. Let's talk about the Clean Power Plan.
10 Now, the Clean Power Plan addresses greenhouse gas
11 emissions from existing power plants; is that
12 correct?

13 A. That's correct.

14 Q. And the U.S. Environmental Protection
15 Agency, they issued the final rule in August of 2015,
16 correct?

17 A. They issued the final rule. It has not
18 yet been published in the Federal Register.

19 Q. And the final rules establish a deadline
20 for final compliance with the Clean Power Plan in
21 2030; is that correct?

22 A. That's correct.

23 Q. Does the Clean Power Plan also establish
24 an interim power period from 2022 to 2029; is that
25 correct?

1 A. Yes, I think it's broken down into three
2 separate interim periods but that time period overall
3 is the interim period, yes.

4 Q. So the interim compliance period
5 establishes three steps, correct?

6 A. Yes.

7 Q. And there's a 2022 through 2024 step,
8 correct?

9 A. Correct.

10 Q. 2025 through 2027 step, correct?

11 A. Yes.

12 Q. And then a 2028 through 2029 step,
13 correct?

14 A. Correct.

15 Q. And each of those interim -- each of
16 those interim steps have different requirements,
17 correct?

18 A. That's correct.

19 Q. And have you been working with your
20 team -- have you and your team been working with all
21 of the AEP affiliates so that they can comply with
22 the Clean Power Plan by 2019?

23 A. Well, to start out with there's not a
24 2019 compliance requirement.

25 Q. I'm sorry, what was that?

1 A. There's not a 2019 compliance
2 requirement.

3 Q. But isn't that what --

4 A. It starts in 2022.

5 Q. So but are you planning on complying with
6 the Clean Power Plan in 2019?

7 A. So I'm not sure -- I mean, based on what
8 EPA's announced the first compliance year is 2022.
9 Between now and then states have to develop plans
10 that would identify what steps are needed and then we
11 would look to what's needed to implement those steps,
12 the interim plans.

13 MS. HENRY: Can you read the question
14 back into the record, and if you would answer that
15 for me.

16 (Record read.)

17 A. Okay. And I guess I'll answer it the way
18 I did. What has been issued the first compliance
19 year is 2022. Between now and then the states
20 develop implementation plans and identify what steps
21 are taken. Once we have an understanding of that
22 we'll take what measures are needed to be in
23 compliance.

24 Q. Is there any reason that you would shut
25 down a power plant in 2019 to comply with a 2022

1 compliance period?

2 A. I don't know. I'm not sure what you're
3 referring to.

4 Q. Okay. Are you planning on complying
5 with -- is AEP planning on complying with the Clean
6 Power Plan in the year 2019?

7 MR. SATTERWHITE: Objection, your Honor.
8 I think the witness has answered this question. She
9 is now arguing --

10 MS. HENRY: I --

11 MR. SATTERWHITE: She's just asking with
12 a different inflection the same question over and
13 over again.

14 MS. HENRY: I would just like a "yes" or
15 "no" answer.

16 MR. SATTERWHITE: He answered the
17 question.

18 EXAMINER PARROT: I agree,
19 Mr. Satterwhite.

20 MR. SATTERWHITE: Thank you.

21 Q. (By Ms. Henry) Would you shut down --
22 would you recommend that AEP shut down a unit in 2019
23 for Clean Power Plan limits that have an initial
24 interim compliance obligation in 2022 through 2024 in
25 2019? I can maybe rephrase that.

1 A. Okay.

2 Q. Would you shut down a unit in 2019 --
3 would you recommend that AEP shut down a unit in 2019
4 for compliance with the Clean Power Plan limits that
5 has an initial compliance obligation from 2022
6 through 2024?

7 A. Okay. As a starting point in terms of my
8 role, I typically wouldn't make a recommendation like
9 that. I would identify the requirements that the
10 company can then evaluate what that means in the
11 context of all other issues on how to continue to
12 operate.

13 So I wouldn't make that recommendation as
14 you phrased it one way or the other. That's just --
15 that's not my role.

16 Q. So you wouldn't work with them to strive
17 for compliance three, four years earlier than needed,
18 typically?

19 MR. SATTERWHITE: Objection, your Honor.
20 We're now just not putting the date in and asking the
21 same question.

22 EXAMINER PARROT: I'll allow this one.

23 A. I mean, the Clean Power Plan requirements
24 that might be in place in 2022 that, based on the
25 implementation schedule, we would expect final state

1 plans in 2018, that could be a piece of information
2 in a decision that's made on a unit but there could
3 be other factors that would come into play on whether
4 units should continue to operate or others that are
5 unrelated to the Clean Power Plan.

6 Q. Okay. So if all else being equal,
7 meaning that there's not another environmental
8 regulatory driver, would you recommend that -- would
9 you recommend that a company comply with an
10 obligation many years ahead of the compliance
11 deadline?

12 A. Well, it's hard to say all else being
13 equal. There's a lot of all elses in there. But we
14 were just looking at environmental requirements and
15 anticipating there are environmental requirements in
16 other regulations that may require investment. Would
17 that be a factor in deciding --

18 Q. I believe we said --

19 A. -- affecting decisions on what to do with
20 a unit? They could be factors.

21 Q. Has EPA published any list of specific
22 coal plants identified by name that the agency
23 expects to retire as a result of the Clean Power
24 Plan?

25 A. Are you referring to the final plan that

1 they announced in August?

2 Q. Yes, sir.

3 A. I do not know if that information is
4 available.

5 Q. How about the draft plan?

6 A. In the draft plan EPA did a regulatory
7 impact assessment. In that assessment they did some
8 modeling, that based on whatever assumptions they
9 used, predicted units that might shut down by a
10 certain year, might continue to operate.

11 Q. And it gave unit-by-unit predictions?

12 A. It's my understanding that the
13 information was on a unit-by-unit basis. It's not a
14 prediction necessarily of what any state would decide
15 to do with its plan, but it's an EPA model, they set
16 the assumptions, and it's an indicator of things that
17 might occur, but it's not a prediction. At least I
18 wouldn't take it that way.

19 Q. So you -- I'm just going to do a little
20 cleanup. So you testified earlier that your
21 testimony regarding what projects may be required at
22 PPA rider units under 316(b) was based on the
23 proposed rule, correct?

24 THE WITNESS: Could you read that back.

25 (Record read.)

1 A. The discussion within the written
2 testimony does make references to what may be
3 required under the proposed rule, that's correct.

4 Q. And the final 316(b) Rule was published
5 in the Federal Register in August of 2014, correct?

6 A. That sounds about right.

7 Q. And you submitted your testimony in May
8 of 2015; is that correct?

9 A. That's correct.

10 Q. Okay. And so you did not update your May
11 testimony to reflect the 316(b) Rule that was
12 finalized nine months before your testimony was
13 filed, correct?

14 A. In retrospect when I look at the wording
15 in it, the testimony still refers to the proposed
16 rule. When I look at the list of projects on your
17 exhibit, those projects are consistent with my
18 understanding of the final rule requirements.

19 Q. And I would just like, I understand, you
20 looked at that and you have a general understanding,
21 but I want to know did you provide any analysis in
22 this proceeding that the projects that you identified
23 in your testimony are no longer required under the
24 final rule?

25 A. Apart from the discussion we've had

1 today, no, I guess not.

2 MS. HENRY: So I do have some additional
3 questions but they involve confidential information
4 so I just want to reserve time to ask those
5 questions, but I'll wait until we go into
6 confidential session if that's okay.

7 EXAMINER PARROT: Thank you, Ms. Henry.

8 MR. DARR: May I proceed because I have a
9 conference call?

10 EXAMINER PARROT: I believe Mr. Darr has
11 a scheduling issue so, go ahead, Mr. Darr.

12 MR. DARR: Is that okay with the others?

13 MR. OLIKER: Go ahead.

14 MR. DARR: Thank you.

15 - - -

16 CROSS-EXAMINATION

17 By Mr. Darr:

18 Q. I just want to focus for a second again
19 on the Clean Power Plan Rule that you were discussing
20 in the last five or ten minutes. And that's referred
21 to oftentimes as the Section 111(d) regulations as
22 well; is that correct?

23 A. That's correct.

24 Q. And this is the rule that was issued in
25 final form but not published, not yet published but

1 issued on August 2nd or August 3rd, 2015,
2 correct?

3 A. That's correct.

4 Q. Now, am I correct that AEP Ohio is at
5 this point unable to describe in detail what its
6 compliance plans would be until more is known from
7 the decisions the states will make including whether
8 they will encourage multistate compliance plans?

9 A. Yes. We're at a stage where the state
10 will need to develop a plan that ultimately will
11 determine what is required.

12 Q. And there's, as I understand it, there's
13 an additional requirement under the final regulation
14 that if a state does issue a plan, the U.S. EPA could
15 still reject that plan, correct?

16 A. That's correct.

17 Q. And if the U.S. EPA rejects that plan,
18 then the state would be subject to what is known as a
19 federal implementation plan; is that correct?

20 A. That's one possibility. It also would be
21 possible a state could correct whatever deficiencies
22 are identified by EPA and get -- you know, achieve an
23 approvable plan.

24 Q. And that would require additional time
25 before that state implementation plan is completed,

1 correct?

2 A. It potentially could, yes.

3 Q. And is it AEP's position that until it
4 understands what the terms of the state initial plan,
5 potentially modified plan or final implementation
6 plan, contains -- let me start that again.

7 Is it AEP's position that before it can
8 make a decision as to how to implement any
9 requirements imposed by Section 111(d) it needs to
10 know the terms of the approved state implementation
11 plan or the final -- the federal implementation plan?

12 A. Yes, I would agree with that.

13 Q. And without that final state plan or FIP,
14 federal implementation plan, there's no certainty of
15 the scope or timing of requirements in the view of
16 AEP Ohio, correct?

17 A. There's no certainty on, but from a
18 timing perspective the EPA has established a specific
19 implementation schedule starting in 2022, so there is
20 a little more certainty on timing. Less certainty on
21 what the specific requirement might be.

22 Q. More specifically, at this point you have
23 not identified the capital or operation & maintenance
24 expenses that might be necessary to comply with
25 either an approved state plan or a federal

1 implementation plan, correct?

2 A. It's not clear that, again, depending on
3 when the state does the development plan whether it
4 will require capital expenditures, that's uncertain.
5 So we're not in a position to identify something that
6 may not be included in the plan.

7 MR. DARR: Very good, that's all I have.
8 Thank you.

9 Thank you very much.

10 EXAMINER PARROT: Thank you, Mr. Darr.

11 Ms. Ghiloni.

12 MS. GHILONI: Yeah.

13 MR. SATTERWHITE: Can we go off the
14 record for one second, your Honor?

15 EXAMINER PARROT: You may.

16 (Discussion off the record.)

17 EXAMINER PARROT: Go back on the record.

18 - - -

19 CROSS-EXAMINATION

20 By Ms. Ghiloni:

21 Q. Mr. McManus, I just have a few questions
22 for you. Do you think that there is a trend that
23 environmental regulations are becoming more stringent
24 on coal-fired generation?

25 A. Yes, I agree with that.

1 Q. Okay. So it is a reasonable possibility
2 that this will result in additional regulations for
3 the PPA rider units to meet?

4 A. In what time frame are you referring?

5 Q. Let me rephrase that.

6 So do you think that if this trend
7 continues, it's a reasonable possibility that
8 additional regulations will result and that the PPA
9 rider units will have to meet those regulations?

10 A. That's a possibility. When I look at
11 these units and the controls that they have
12 installed, the systems we'll be installing in the
13 next few years as a result of the rules that have
14 just been put on the books, they're going to be
15 well-controlled units controlling a lot of the
16 emissions or discharge streams. So they're going to
17 be in good shape but there is a possibility something
18 new could come down the road.

19 Q. And if there is this possibility, there's
20 also a possibility that this will require additional
21 capital and/or operating or maintenance costs,
22 correct?

23 A. That's a possibility.

24 MS. GHILONI: That's all I have for this
25 session. Can I reserve time in the confidential

1 portion as well.

2 EXAMINER PARROT: Okay.

3 MS. GHILONI: Thank you.

4 EXAMINER PARROT: Ms. Bair.

5 MS. BAIR: Thank you.

6 - - -

7 CROSS-EXAMINATION

8 By Ms. Bair:

9 Q. Hello. My name is Jodi Bair, and I
10 represent the Office of Consumers' Counsel.

11 A. Good afternoon.

12 Q. Good afternoon.

13 What is the length of AEP's PPA agreement
14 that is the subject of this proceeding?

15 A. My understanding is the projected life of
16 the units the years are identified in the
17 application, I believe.

18 Q. And what would the outside year be?

19 A. I believe it's 2050 time frame for the
20 Zimmer plant.

21 Q. Okay. And if you could, please, direct
22 your attention to page 4, line 19 of your testimony,
23 and I will just read the entire sentence, "There are
24 myriad rules and regulations with which these
25 generating units must comply, but of particular

1 interest are relatively recent regulations that are
2 either effective now, or are anticipated to become
3 effective in the foreseeable future." Do you see
4 that in your testimony?

5 A. Yes, I do.

6 Q. And what do you -- what type of timeline
7 do you define as "foreseeable"?

8 A. I mean, in general, looking out about ten
9 years, I think there's enough information to sort of
10 foresee what may be required in that time period.

11 Q. And I'd like to ask you if you -- you've
12 reviewed the testimony of your colleague, Mr. Thomas,
13 correct?

14 A. Yes.

15 Q. Do you have that testimony up there with
16 you?

17 A. Yes, I do.

18 Q. Could you please refer to page 10, line
19 17. And he says "We have a relatively good picture
20 of what the market will look like three years out in
21 terms of known environmental regulations and likely
22 plant retirement, both internal and external, to your
23 company." Do you agree with that statement as it
24 speaks to environmental regulations?

25 A. This statement refers to what the market

1 will look like, so that will have to go to
2 Mr. Thomas. But in terms of do we have a good idea
3 of the environmental requirements over the next three
4 years? I would agree with that.

5 Q. Okay. And do you agree that you have a
6 relatively good picture of what the market will look
7 like ten years out in terms of known environmental
8 regulations?

9 A. Again, I don't look at the market, so I'm
10 not going to speculate one way or the other on that.

11 Q. So you don't have an opinion about
12 environmental regulations ten years out?

13 A. I have an opinion on environmental
14 regulations. You asked about do I have an opinion on
15 the market, and that's two different things.

16 Q. Okay. Let me rephrase it. Do you agree
17 that you have a relatively good picture of what the
18 market will look like ten years out in terms of known
19 environmental regulations?

20 A. Again, I'm having trouble -- I don't have
21 an opinion or view on what the market will look like.
22 I have a sense in the projections on what
23 environmental regulations we think will be in place
24 in that time period.

25 Q. And you think AEP Ohio has a good handle

1 on what environmental regulations will be like in ten
2 years?

3 A. Ten years is pushing the limit a little
4 bit but, again, when we look at what the requirements
5 are now, what EPA is in the process of implementing,
6 looking down the road, again, I think we've got a
7 reasonable view within that ten-year period of
8 environmental regulations.

9 Q. Okay. And do you recall your deposition
10 being taken and you were asked: "How about ten years
11 out? Do you believe you have a good picture of what
12 environmental regulatory compliance obligations will
13 be?" And your response was: "I would say that ten
14 years out is pushing beyond somewhat the ability of
15 having a good understanding of what the requirements
16 will be."

17 MR. SATTERWHITE: Objection, your Honor.
18 If you would like to use the deposition to impeach
19 the witness, I believe the proper approach is to
20 present the witness with the deposition rather than
21 just read it into the record.

22 EXAMINER PARROT: Looks like we have the
23 deposition coming.

24 MR. SATTERWHITE: Thank you.

25 Q. I would direct you to page 25, lines 10

1 through 13?

2 A. Which lines again?

3 Q. Ten through 13. No, I'm sorry.

4 Seventeen through 19 is the ten years.

5 A. Okay.

6 Q. And in your response did you say that:

7 "I would say that ten years is pushing beyond
8 somewhat the ability to have a good understanding of
9 what the requirements will be"?

10 A. That's what I said in the deposition, and
11 I think a few minutes ago I also said ten years is
12 probably pushing the limit a little bit. So I think
13 that's --

14 Q. How about -- I'm sorry.

15 A. I think it's the same thing using
16 different words.

17 Q. And how about in the year 2050?

18 A. 2050 is very difficult to anticipate.

19 Q. So you would agree that there's no way to
20 anticipate that far out.

21 A. That's what I indicated in the
22 deposition.

23 Q. Thank you.

24 Also on page -- of your direct testimony
25 filed in this case on page 19 and 20, the bottom of

1 the page, and going over to page 20 you've quoted the
2 PUCO comments that the CPP threatens the reliability
3 of electric service at affordable rates, correct?

4 A. Yes, there is a quote from the PUCO
5 comments.

6 Q. Okay. And didn't the PUCO also say in
7 those comments that, regarding quantifiable costs
8 with building block 2, that changing the economic
9 dispatch would raise wholesale market prices by
10 39 percent and would cost Ohioans 2.5 billion more
11 per year in electric costs in 2025?

12 A. I don't know if that was in their
13 comments or not.

14 MS. BAIR: Your Honor, can we approach?
15 I'd like to refresh his recollection.

16 EXAMINER PARROT: You may.

17 Q. And this is from the same letter that you
18 cited in your testimony.

19 A. Okay.

20 Q. And this is on page 28.

21 A. Okay.

22 Q. So am I correct that the same letter that
23 you cited the PUCO also said that "changing economic
24 dispatch to environmental dispatch would raise
25 wholesale market prices by 39 percent and would cost

1 Ohioans \$2.5 billion more per year in electric costs
2 in 2025"?

3 A. That's what the document says.

4 MS. BAIR: Thank you.

5 I don't have anything else, but I reserve
6 the right to ask questions in the confidential
7 portion.

8 MR. SATTERWHITE: Can I get a
9 clarification. Parties seem like they're just
10 reserving their right to ask confidential questions
11 versus they have confidential questions. I don't
12 know if -- it seems like we're creating a new process
13 here versus they actually have questions. It's
14 almost just like they're reserving time for more
15 cross. If they have confidential questions, that's
16 perfectly fine but just reserving a broad open right
17 to it seems --

18 EXAMINER PARROT: I'm taking their
19 reservation of right, or however they put it, as they
20 do actually have questions so I'm going to expect
21 those that are saying that to actually have
22 questions.

23 MS. BAIR: Your Honor, may I raise a
24 question. If someone goes before me in cross and
25 asks a question and it happens to be on the

1 confidential record, I would like to be able to
2 follow up with that and protect the company's
3 confidential information.

4 MR. SATTERWHITE: If I may, your Honor.

5 EXAMINER PARROT: Mr. Satterwhite.

6 MR. SATTERWHITE: It seems the parties
7 come prepared to cross this witness, not to rely on
8 other parties to ask further questions, they come
9 prepared to ask confidential questions or not. It's
10 not an opportunity to ask more questions because
11 further cross beyond what's been done already by the
12 previous party.

13 EXAMINER PARROT: All right. Well, I've
14 already noted on the record that my expectation is
15 that parties that say they have questions for the
16 confidential session will have questions for the
17 confidential session.

18 MR. SATTERWHITE: Thank you.

19 EXAMINER PARROT: So if you do not have
20 them now, you better come up with some.

21 MS. HENRY: Your Honor, may I just make a
22 point which is sometimes some people ask lots of
23 questions like myself, and sometimes I cover issues
24 that other people may have been intending to ask, so
25 I think just because a party doesn't ask a

1 confidential question doesn't mean that they weren't
2 intending to ask a confidential question.

3 EXAMINER PARROT: All right. I don't
4 want to have this debate right now. We're not at the
5 point of going into confidential session so we will
6 just keep moving for now. I think I've noted what
7 the expectation of the Bench is. If you need to
8 debate it further, we'll do that at the point we
9 conclude with the public portion of the
10 cross-examination.

11 Mr. Oliker.

12 MR. OLIKER: Your Honor, at this point in
13 time I do not know if I have confidential questions,
14 but I would like to reserve the right to the extent
15 that counsel for another party brings up a
16 confidential issue; I may or may not agree with it,
17 and I may need to pursue an issue that they raise in
18 cross that affects my case. But with that notation,
19 I will proceed and cross that bridge when we come to
20 it.

21 EXAMINER PARROT: Do you have questions?

22 MR. OLIKER: I have questions for the
23 public session.

24 EXAMINER PARROT: You do?

25 MR. OLIKER: Yes.

1 EXAMINER PARROT: So let's proceed with
2 those, please.

3 - - -

4 CROSS-EXAMINATION

5 By Mr. Olikar:

6 Q. Mr. McManus, my name is Joe Olikar, and I
7 represent IGS Energy. Just a few questions for you
8 following up on the Clean Power Plan.

9 As your testimony presents the issue of
10 the Clean Power Plan, you discuss four building
11 blocks that were originally proposed, correct?

12 A. That's correct.

13 Q. Okay. And just from a high level, I
14 think we all understand this, but the end goal of the
15 Clean Power Plan is to reduce carbon emissions,
16 right?

17 A. Correct, from existing generating units.

18 Q. Thank you.

19 And the coal-fired power plant is the
20 largest emitter of carbon from any type of
21 power-producing technology of scale, correct?

22 A. Depends on size of the plant. The CO2
23 emission rate from coal combustion is higher than
24 from combustion from other fossil fuels.

25 Q. Thank you.

1 And the emission reduction targets for
2 each state are based upon the emission rates of that
3 state at a specific time?

4 A. I'm not sure I understand the question.

5 Q. What part of the question don't you
6 understand?

7 A. When you say "at a specific time," what
8 are you referring to?

9 Q. Well, when the EPA is calculating
10 emission target reduction, they're just looking at
11 each state specifically and the amount of emissions
12 that occur within that state; is that right?

13 A. When EPA issued the final Clean Power
14 Plan, one thing that is widely noticed is they took a
15 different approach by calculating the state-by-state
16 targets as they did in the proposed plan and the
17 approach in the final plan actually looks on a
18 broader regional basis to establish targets than EPA
19 used in the proposed plan.

20 Q. But you agree that the focus is still
21 state specific, right?

22 A. The targets are established on a -- for
23 each state individually, yes, I agree with that.

24 Q. Okay. Thank you.

25 And as you present the four building

1 blocks in your testimony, those are the ways that
2 each state is likely to be able to comply with the
3 state-specific targets, correct?

4 A. The four building blocks I discussed were
5 the approach I took in the proposed rule. The
6 approach I took on the final rule is different. It
7 doesn't include all four building blocks in
8 establishing targets, but there could be aspects of,
9 and particularly building block 4 and the proposed
10 energy efficiency that the state may rely on in
11 meeting its target, it just wasn't used in
12 establishing the target.

13 Q. I appreciate you trying to help me with
14 this, and it is helpful discussing the difference
15 between the proposed and the final, but just so we
16 can make the record clear I just want to walk you
17 through it slower than that because you mentioned a
18 lot of things in there, and let's first focus on the
19 proposed rule.

20 A. Okay.

21 Q. There were the four building blocks in
22 the proposed rule that would allow a state to achieve
23 compliance, right?

24 A. There were four building blocks that EPA
25 used to calculate the state-by-state targets.

1 Q. Okay. And I think you mentioned this,
2 one of the building blocks is energy efficiency,
3 right? Which is building block No. 4.

4 A. End use energy efficiency, the EPA had
5 assumptions on that that they used to calculate the
6 state targets.

7 Q. Okay. And the final rule doesn't have
8 energy efficiency, but they assume that a state could
9 have energy efficiency to achieve compliance,
10 correct?

11 A. In the final rule EPA did not use energy
12 efficiency assumptions in calculating the targets,
13 but they clearly identify that's something a state
14 could look at, correct.

15 Q. Okay. And, I think you talk about each
16 of the building blocks in your testimony and one of
17 the things I gathered from reading it is that AEP
18 didn't agree with pretty much any of the assumptions
19 the EPA used for any of the building blocks.

20 A. That's I think an accurate description,
21 yes.

22 Q. Okay. We're on the same page, okay.

23 For example, building block 1, heat rate
24 improvements, what that is is just by improving the
25 heat rate of a generating unit you improve the

1 efficiency and reduce the amount of coal you have to
2 burn, right?

3 A. To generate a given amount of
4 electricity, correct.

5 Q. And by doing that you emit less carbon,
6 right?

7 A. Your CO2 emission rate will be less.

8 Q. Okay.

9 A. How much carbon you actually emit depends
10 on how much you're operating the unit.

11 Q. Right. Okay.

12 And then like, for example, the third
13 building block pertains to renewable generation
14 re-dispatch, correct?

15 A. The third building block in the proposal
16 assumptions on how much renewable energy states could
17 implement and then the energy that -- the kilowatt
18 hours that came from that renewable would be a factor
19 in how the state calculated how it would meet its
20 state emission rate.

21 Q. So the idea is you take generation that
22 would have been provided by perhaps a coal-fired
23 generator or a natural gas generator and you move it
24 to a lower-emitting resource, right?

25 A. That could be a possibility but you could

1 also have renewables -- depending on what demand is,
2 you could have new renewables meeting new demand with
3 zero carbon emissions that then gets added into the
4 carbon emissions from the fossil generations to see
5 what the result of the emission rate is and whether
6 it meets the target or not.

7 Q. Okay. And, I'm sorry, I left -- first,
8 I'm correct that AEP doesn't believe the renewable
9 development assumed by the EPA was feasible, correct?

10 A. We thought that what EPA had in the
11 proposed rule was aggressive, yes.

12 Q. I'm sorry, I could ask her to read it
13 back, I didn't quite hear you.

14 A. We thought what EPA had in the proposed
15 rule was aggressive on their assumptions on renewable
16 deployment.

17 Q. Okay. And, likewise, AEP also believed
18 the energy efficiency assumptions were aggressive.

19 A. That's correct.

20 Q. And that was in part because of Senate
21 Bill 310?

22 A. It may have been a part, it may have been
23 a part on our understanding of what we think is
24 achievable and cost-effective in end use energy
25 efficiency.

1 Q. Okay. And, to further elaborate on that,
2 recognizing Senate Bill 310 wasn't all the basis for
3 your opinion, you agree that there was a panel that
4 reviews the freeze of the energy mandates in Senate
5 Bill 310?

6 A. I'm not aware of that.

7 Q. Are you familiar with Senate Bill 310?

8 A. In general terms. It's not my area
9 really to work in.

10 Q. What is your understanding of Senate Bill
11 310?

12 A. That it addressed sort of renewable
13 energy, renewable portfolio of standards for the
14 state of Ohio. That's pretty much the extent of it.

15 Q. Is it your understanding that there is a
16 temporary freeze of those mandates?

17 A. Yes.

18 Q. And was it your understanding that there
19 would be a review of the temporary freeze to
20 determine whether that would be made indefinite?

21 A. No. I'm not aware of that.

22 Q. That's fine then, we'll move on from
23 there if that's the limit of your understanding.

24 Okay. So, going back, and I guess I
25 forgot to ask this question, regarding the heat rate

1 improvements that were assumed by the EPA, it was
2 also AEP's opinion that those were aggressive?

3 A. That's correct.

4 Q. And to close the loop, the second
5 building block pertains to shifting generation to
6 natural gas-fired generation, correct?

7 A. That's correct.

8 Q. And one of the ways that you can do that
9 is through a carbon tax, correct?

10 A. That would be a possibility that if you
11 had some joint economic signal in how units are
12 dispatched, it could have that result, yes.

13 Q. And the idea is to move coal-fired
14 generation further up the stack in the way generation
15 units are dispatched in PJM, correct, from a marginal
16 cost basis?

17 A. I'm not exactly sure when you say
18 "further up the stack" which direction you're
19 talking.

20 Q. Okay. So the idea of a carbon tax is
21 you're adding an additional cost to the production
22 cost of a coal-fired generation facility, correct?

23 A. Correct.

24 Q. And by doing that you put it higher up in
25 the stack so that you are calling on -- moving

1 natural gas resources to be more competitive relative
2 to without the carbon tax.

3 A. I'm not sure about more competitive. If
4 what you're indicating is by higher up in the stack
5 it means that the cost -- dispatch cost of that coal
6 unit is higher and units lower in the stack are then
7 potentially dispatched ahead of it, if that's what
8 you mean, then yeah, I would agree with that.

9 Q. You nailed that.

10 A. Okay.

11 Q. And as we have been discussing these
12 other building blocks, would you agree that to the
13 extent building block 1, building block 3, and the
14 assumptions for energy efficiency are completely off
15 at the EPA, then one of the potential results is you
16 have to increase whatever carbon tax is put into
17 effect?

18 A. No. I don't know that I reach that
19 conclusion. And then I also have to move to the
20 final rule and not the proposed rule because EPA
21 changed methodology, they changed the targets, they
22 changed the assumptions. So what really needs to
23 happen now is to analyze the final rule and identify
24 what steps may be available.

25 Q. Okay. Switching to the final rule, would

1 you agree that it is stricter on states that are more
2 heavily reliant on coal generation than the proposed
3 rule?

4 A. Yeah, when EPA changed the methodology
5 that they used to calculate the state targets, one of
6 the effects was that states that were more reliant on
7 coal, their targets are somewhat more stringent than
8 in the proposed rule.

9 Q. Okay. And assuming the heat rate
10 improvement is not feasible and the amount of
11 renewable generation that was assumed by the EPA is
12 also not feasible, then is one of the potential
13 results to have to increase the level of the carbon
14 tax?

15 A. That makes the assumption that a state is
16 going to go, is going to implement based on a carbon
17 tax and I don't know if that's the case or not in
18 terms of what Ohio or any other states might do.

19 Q. Okay. That's a good point. But so we're
20 clear, if they do choose a carbon tax to meet their
21 compliance targets, if the building block 1 and
22 building block 3 fail, then you do have to increase
23 the carbon tax, correct?

24 A. I don't know. I can't say.

25 Q. But it's possible?

1 A. I suppose it's possible.

2 Q. And, in fact, the United States is not
3 the first country to regulate carbon emissions,
4 correct?

5 A. That would be correct.

6 Q. And other countries that have tried to
7 regulate carbon emissions like the United Kingdom,
8 they have had to increase their carbon tax due to a
9 failure to shift generation to natural gas, correct?

10 A. I'm not familiar with what has occurred
11 in other countries.

12 Q. Okay. That's fine.

13 But you are aware that, globally
14 speaking, the regulations on carbon emissions is
15 showing an increasing trend.

16 A. I don't know that.

17 Q. Are you familiar with the fact that the
18 European union last summer increased its carbon cap?

19 A. No, I'm not.

20 Q. Did you know that China agreed to a
21 carbon cap this summer in June?

22 A. I've seen an newspaper article on it but
23 that's the extent I know anything about it.

24 Q. Would you agree that the likelihood --
25 scratch that.

1 Would you agree that the trend in the
2 future is more likely to be a larger regulation of
3 carbon emissions than a lower regulation?

4 A. I can't say one way or the other.

5 Q. Do you review forecasts of potential
6 carbon taxes from outside consultancies?

7 A. No, I don't.

8 Q. You do not?

9 A. No.

10 MR. OLIKER: Could I have a minute, your
11 Honor?

12 EXAMINER PARROT: You may.

13 Q. Following up on -- we have been
14 discussing heat rate improvements. Would you agree
15 that it's AEP's belief that not only is there a
16 possibility that EPA has overstated the ability to
17 improve the heat rates of a coal-fired power plant
18 but heat rates may actually decrease or -- I'm sorry,
19 I got that backwards, let me try that one more time,
20 Mr. McManus.

21 It's AEP's belief that the EPA may have
22 overstated heat rate improvements and also it's
23 possible that the EPA could have gotten it backwards,
24 that heat rates may degrade as a result of the Clean
25 Power Plan?

1 A. On the first part of your question I
2 would agree. We believe the EPA's assumptions on
3 heat rate improvement opportunities in the proposed
4 rule was aggressive.

5 On the second part of your question, we
6 did express a concern that the way EPA structured the
7 building blocks in the proposed rule, in particular
8 the relationship between building block 1 and
9 building block 2, if you shift energy to gas units
10 from coal units and you change the operating pattern
11 of the coal units, that that could have an impact on
12 the heat rate and then potentially it could degrade
13 the heat rate.

14 But ultimately that's going to depend on
15 the final rule, how it's implemented, and what the
16 operating pattern of any unit would be. It could
17 affect its heat rate, could improve, could go down
18 or -- well, same thing, other direction. It could
19 get better, or it could get a little worse.

20 Q. Just so the record's clear, what you're
21 talking about with the dispatch patterns, coal-fired
22 power plants tend to have a lower heat rate the
23 higher their capacity factor, correct?

24 A. We're getting a little outside my area of
25 expertise. Mr. Thomas is going to be much better

1 able to answer questions on performance of the units
2 and how that changes as operating patterns change.

3 Q. But when you were referencing in your
4 response modifying the operating patterns of a
5 coal-fired power plant, you were referring to
6 changing a coal-fired power plant from a baseload
7 unit to a load-following unit, correct?

8 A. That might be one example where the
9 operating pattern changes and that's going to change
10 the performance of the unit.

11 Q. And that's because as you ramp the coal
12 plant up and down, you can affect the efficiency of
13 the power plant, correct?

14 A. That's my understanding. Mr. Thomas is
15 in a much better position to discuss those kinds of
16 impacts.

17 MR. OLIKER: I believe those are all the
18 questions I have, your Honor.

19 Thank you, Mr. McManus.

20 EXAMINER PARROT: Thank you, Mr. Olikier.

21 All right. Let's go off the record at
22 this point -- well, before we do that let's announce
23 now that we will take a lunch break until 1:45 p.m.

24 MR. NOURSE: Your Honor, I'm sorry, I
25 don't want to delay the lunch, but I would like to do

1 something on the record before we break.

2 So we have a problem with Sierra Club
3 producing workpapers that you ordered them to produce
4 on Monday. You know, when this supplemental
5 testimony was filed last Friday, I made two requests
6 over the weekend for the workpapers. I believe you
7 ordered them to provide them in the context of
8 allowing the supplemental filing.

9 I spoke with Mr. Bzdok the other day
10 again informing him. I sent another e-mail last
11 night to all Sierra Club counsel. We still don't
12 have a workpaper for the primary table in the
13 supplemental Table S1 -- the primary table in the
14 supplemental testimony. The only thing they gave us
15 was an Excel spreadsheet that has these same numbers
16 and there's no indication of how they were
17 calculated.

18 So I would ask that the Bench direct
19 Sierra Club to work on this over lunch. We have a
20 deposition scheduled for the witness Monday. We
21 still don't have the workpapers.

22 MS. HENRY: May I be --

23 EXAMINER PARROT: Response?

24 MS. HENRY: Sure. Well, with regard to
25 the workpapers, Mr. Nourse did ask for Mr. Chernick's

1 workpapers over the weekend. I e-mailed Mr. Chernick
2 over the weekend. He got me the workpapers on Monday
3 morning, which I assumed was an acceptable amount of
4 time.

5 I provided those workpapers on Monday. I
6 was passed a handwritten note that Mr. Nourse gave to
7 Mr. Bzdok. I was given that note on Tuesday evening.
8 On Tuesday evening I transcribed that handwritten
9 note into an e-mail to Mr. Chernick requesting
10 exactly what Mr. Nourse wanted. I spoke with
11 Mr. Chernick yesterday and said did you get my
12 e-mail, how long can I wait. Mr. Chernick said I
13 am -- he's like, I'm working on it. He said I can
14 see why they're confused. It's based on a very large
15 Excel document. What he did is he created a Word
16 document that walked them through how to reproduce
17 every document.

18 I sent it to Mr. Nourse yesterday, and I
19 have my computer open, I can show you the e-mail that
20 has it sent to him.

21 MR. NOURSE: That's exactly what I just
22 said but the point is the table that the testimony,
23 supplemental testimony is based on, we have nothing
24 but basically a picture with the numbers. So it
25 doesn't explain these numbers, and it's not obvious

1 how it was done. And so we still don't have the
2 workpapers regardless of what communications have
3 occurred and how -- what efforts have been made.
4 That's the fact that we need to resolve.

5 MS. HENRY: I mean, there's a document.
6 I can show --

7 EXAMINER PARROT: I don't need to see
8 anything. I need to know. And so is your point here
9 that you've given Mr. Nourse what you think you have
10 or is Dr. Chernick still working on something?

11 MS. HENRY: I have given Mr. Nourse all
12 of the documents that he requested. I even went one
13 step further and Mr. Chernick created a Word document
14 where he walked through how to reproduce the tables.

15 MR. NOURSE: Well --

16 MS. HENRY: If they're still having
17 difficulty reproducing it, Mr. Chernick can walk you
18 through that on Monday.

19 MR. NOURSE: Your Honor, like I said, the
20 Table S1 is the one that I specifically mentioned to
21 counsel and that we still just have an Excel
22 spreadsheet that just has the same numbers we can see
23 on the page so it doesn't --

24 MS. HENRY: I mean, but Table S1 --

25 MR. NOURSE: It's not a workpaper.

1 MS. HENRY: Table S1 is just your
2 forecast.

3 MR. NOURSE: No. It's his explanation of
4 the difference.

5 MS. HENRY: On the calculated change.

6 MR. NOURSE: The calculations are way off
7 so we don't understand how he got there. So it's not
8 explained how he got there. That's what a workpaper
9 does.

10 EXAMINER PARROT: Mr. Nourse, do you have
11 the Word document that she's referring to?

12 MR. NOURSE: Not yet.

13 EXAMINER PARROT: You do have that?

14 MR. NOURSE: Well, let's have --

15 EXAMINER PARROT: I just want to know. I
16 don't want to get into whether I'm agreeing. I'm not
17 agreeing or disagreeing with anybody. I just want to
18 know do you have it.

19 MR. NOURSE: I don't know what document
20 she has open, and I don't have it open right now at
21 this moment but we can --

22 EXAMINER PARROT: Did you receive some
23 type of Word document from Sierra Club?

24 MS. HENRY: It may have been a PDF.

25 MR. NOURSE: It's a PDF, we had PDF and

1 Excel files. I don't recall getting a Word.

2 MS. HENRY: It was PDF. I'm sorry.

3 MR. NOURSE: Yes, I have a PDF.

4 EXAMINER PARROT: Okay.

5 MR. NOURSE: Well, I guess, you know,
6 again, we opposed the supplemental testimony, and if
7 it comes out that he can't explain it, didn't provide
8 workpapers, you know, sure, I can point that out in
9 the deposition, and then he'll probably try to fix it
10 again at the last minute but, you know, that's not
11 going to be fair either.

12 MS. HENRY: Can I approach the Bench with
13 the computer? I mean, he's asking about Table S1.
14 May I approach? This is the table. If you look
15 here, it shows you the formula. See, that's the
16 formula up there. And this is the table that was --
17 he's talking about so I don't -- I mean, I don't know
18 what more you need than the formula.

19 May I approach?

20 EXAMINER PARROT: No.

21 MR. NOURSE: Well, your Honor --

22 MR. NOURSE: Your Honor, I didn't want to
23 delay lunch this long.

24 EXAMINER SEE: Hold on just a second,
25 Mr. Nourse.

1 EXAMINER PARROT: We'll rearrange our
2 lunch break.

3 All right. The Bench did grant the
4 motion that was filed by Sierra Club to file the
5 supplemental testimony and a condition of that was
6 specifically that Sierra Club would provide to
7 AEP Ohio Mr. Chernick's workpapers.

8 With that we are going to direct Sierra
9 Club and AEP Ohio to work during our lunch recess to,
10 if you need to, get ahold of Dr./Mr. Chernick, please
11 do that. We want to make sure that AEP Ohio has the
12 full underlying analysis of the supplemental
13 testimony. I'm going to direct you to keep your best
14 efforts to resolve this yourselves. If we need to
15 revisit it at the end of our break, we will do that,
16 but we want you to try to do this during our lunch
17 recess.

18 MR. NOURSE: Thank you.

19 EXAMINER PARROT: With the delay here we
20 will reconvene at 2 o'clock. We're off the record.

21 (Thereupon, at 12:57 p.m., a lunch recess
22 was taken until 2:00 p.m.)

23 - - -
24
25

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1 Thursday Afternoon Session,
2 October 1, 2015.

3 - - -

4 EXAMINER PARROT: Go back on the record.
5 Are you ready to proceed with
6 cross-examination at this point?

7 MR. SATTERWHITE: Yes, thank you.

8 EXAMINER PARROT: Mr. Yurick?

9 MR. YURICK: No questions, your Honor.

10 EXAMINER PARROT: All right. Mr. Boehm?

11 MR. K. BOEHM: No questions, your Honor.

12 EXAMINER PARROT: Ms. Fleisher?

13 MS. FLEISHER: Thank you, your Honor.

14 - - -

15 JOHN M. MCMANUS
16 being previously duly sworn, as prescribed by law,
17 was examined and testified further as follows:

18 CROSS-EXAMINATION

19 By Ms. Fleisher:

20 Q. Mr. McManus, my name is Madeline
21 Fleisher. I represent the Environmental Law & Policy
22 Center. Thanks for being here.

23 So to start off, I was wondering whether
24 you noticed over the lunch break that EPA announced
25 the new ozone NAAQS level.

1 A. I did see some e-mail that they're going
2 to make an announcement at 2:30. I do see some
3 speculation on what the number will be.

4 Q. Is the speculation you saw that it will
5 be 70 parts per billion?

6 A. That's what I saw, yes.

7 Q. And you talked with Ms. Henry a little
8 bit about how attainment and nonattainment
9 determinations are made for counties, and I just want
10 to clear something up. So that's based on monitoring
11 data for those counties, correct?

12 A. I mean, usually that's what EPA and the
13 state would use. If they have monitoring data in a
14 county, they'll look at that. They may look at
15 whether data in one county might be representative of
16 other counties and look, you know, more than just the
17 specific county-by-county basis. There's different
18 factors they consider.

19 Q. And not all counties have monitors,
20 correct?

21 A. Correct.

22 Q. Could this be why some Ohio counties
23 weren't listed on the document that Ms. Henry
24 referred you to?

25 A. It could be. I don't know the basis of

1 how EPA listed specific counties in that document.

2 Q. And I think you established with
3 Ms. Henry that your testimony doesn't refer to the
4 ozone NAAQS provision that was just issued today,
5 correct?

6 A. That's correct.

7 Q. And the proposed rule was out at the time
8 you prepared your testimony, correct?

9 A. Yes.

10 Q. And at the time you filed your testimony,
11 did you believe it was likely that EPA would revise
12 the ozone NAAQS?

13 A. I believe it was a possibility. I don't
14 know how likely I thought it was.

15 Q. And the Clean Air Act requires EPA to
16 review the NAAQS every five years to consider whether
17 they should be revised, correct?

18 A. That's correct.

19 Q. And the Clean Water Act requires EPA to
20 review effluent limitation guidelines every eight
21 years to determine whether they should be revised,
22 correct?

23 A. I'm not sure what the Clean Water Act
24 requirement is. I do know when the last time they
25 revised them before yesterday, it's considerably more

1 than eight years.

2 Q. Putting aside the question of whether EPA
3 does that, is there a statutory requirement for EPA
4 to periodically review effluent limitation
5 guidelines?

6 A. I believe there is, but I don't know the
7 schedule.

8 Q. You're aware that EPA has currently
9 planned out two phases of CASPR; is that correct?

10 A. That's correct.

11 Q. And those phases are designed to reduce
12 SO2 and NOx emissions to ensure compliance with the
13 1997 ozone NAAQS and the 2006 PM-2.5 NAAQS, correct?

14 A. That's my understanding, yes.

15 Q. And the ozone NAAQS was revised to be
16 more stringent in 2008, correct?

17 A. That's correct.

18 Q. And the PM-2.5 NAAQS was revised to be
19 more stringent in 2013, correct?

20 A. That, I'm not quite sure on that.

21 Q. Are you aware that the PM-2.5 NAAQS has
22 been revised since 2006?

23 A. Again, I'm not positive on that.

24 Q. And EPA has an obligation under the Clean
25 Air Act to ensure or to regulate interstate transport

1 of pollutants to ensure compliance with the most
2 recent NAAQS, correct?

3 A. Yeah, EPA has -- there are provisions in
4 the Clean Air Act that address interstate transport
5 of pollution.

6 Q. And are you aware that EPA issued a
7 notice of data availability this summer regarding
8 plans to update CASPR to ensure compliance with the
9 2008 ozone NAAQS?

10 A. I'm aware they issued a notice about
11 availability, and they were contemplating another
12 transport rule. I'm not positive that they
13 characterized it as updating specifically the
14 cross-state rule.

15 Q. Would you agree that at some point EPA
16 will have to revise CASPR to account for the 2008
17 ozone NAAQS in the most recent PM-2.5 NAAQS?

18 A. I don't know that it's an absolute
19 certainty. I think this EPA seems to be heading in
20 that direction.

21 Q. And what would be your basis for saying
22 that EPA won't do that?

23 A. One of the -- well, I know one of the
24 concerns that a lot of parties had about today's
25 announcement in the ozone standards is it's revising

1 the standard, again, before the previous standard was
2 implemented. So it's creating sort of an
3 administrative burden on the states in developing
4 plans for a standard that has since been revised.

5 You know, could that come into play at
6 some point where there's a decision that says let's
7 look at the new standard instead of this, you know,
8 the '08 standard, I don't know. But I could see that
9 as a possibility.

10 Q. Okay. So just to make sure I'm
11 understanding correctly, you're suggesting that EPA
12 might basically skip over an intervening NAAQS in
13 order to update CASPR to account for the most recent
14 NAAQS?

15 A. The possibility's there. I don't know
16 whether they would be inclined to do this or not.

17 Q. But you'd agree that the two imminent
18 phases of CASPR regarding the 1997 ozone NAAQS and
19 the 2006 PM-2.5 NAAQS will not be the last iteration
20 of CASPR.

21 A. I mean, it's speculation in part, but it
22 seems reasonable that EPA will move to something else
23 and there's an aspect of that that I think is
24 important with the approach that EPA has taken really
25 since early the last decade with the NOx SIP Call

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1 originally to continue with the Clean Air Interstate
2 Rule with the Cross-State Air Pollution Rule
3 addressing the contribution from power plants on a
4 regional basis to air quality and what reductions
5 from that sector on a regional basis is needed to
6 help states and cities come into compliance knowing
7 that there's other sources that also contribute to
8 those pollutants. The assumption that I have is
9 there's a history of that, it's worked, it's been
10 effective, and EPA would rely on a similar regional
11 market-based approach. And that's kind of what
12 you're saying, some update to the cross-state rule, I
13 think it would maintain sort of the same structure of
14 that rule, and that affords some flexibility because
15 there's an allowance market available that can
16 potentially be relied on as you evaluate what
17 reductions are needed and the costs of those
18 reductions.

19 Q. And in that sort of version of
20 implementation of CASPR that you're discussing, the
21 state budgets for SO₂ and NO_x would be lowered from
22 the levels they're currently set at for phases 1 and
23 2 of CASPR; is that correct?

24 A. They could be. And, again, going back to
25 something I said earlier, as those plans are

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1 developed, it's important that they are based on the
2 most recent air quality data. So we've seen
3 improvement in air quality for, you know, since the
4 Clean Air Act 40 years ago. You know, even since the
5 time period of the ozone data that we talked about
6 earlier, I think there's been reductions in emissions
7 that contribute to ozone. I would expect air quality
8 to continue to improve.

9 And it's really what those -- what's the
10 level of air quality as you're developing the next
11 plan you need to look at in terms of what incremental
12 reductions might be needed, not for air quality three
13 years ago, but for air quality, you know, two years
14 from now or three years from now, four years from
15 now. And so I would expect the process would factor
16 that in and not base any requirements on what might
17 be outdated air quality data.

18 Q. And you haven't analyzed whether the
19 permitted emissions of SO₂ and NO_x might be reduced
20 under a future iteration of CASPR, correct?

21 A. That's correct.

22 Q. And if state budget -- or, facility
23 allowance budgets for SO₂ and NO_x were further
24 reduced, that would likely raise the price of
25 allowances, correct?

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1 A. It has the potential but it will depend
2 on what the demand for those allowances are, what
3 generation is operating at that point in the future.
4 You know, again, there's been a fair amount of coal
5 generation retired just this year that reduces some
6 of that load and potentially reduces that demand for
7 allowance, so it's really going to depend on what
8 generation is in place, how it's operating, what
9 controls it has, and what the need for allowances
10 would be that would then determine how the market
11 responds to that.

12 Q. And you haven't analyzed those issues,
13 correct?

14 A. Correct.

15 Q. I'll try not to be repetitive here, but
16 AEP Ohio estimated a carbon price under the Clean
17 Power Plan for purposes of forecasting the costs of
18 the PPA units, correct?

19 A. We use an assumed carbon price adder in
20 the modeling, and Dr. Pearce I think talked about
21 that. It's an approach we've taken for a number of
22 years now, even well before the Clean Power Plan was
23 proposed, to try and recognize our expectation of
24 what would be carbon regulation at some point in
25 time. So we tried to factor that in and just use a

1 price adder for that.

2 So we continue that approach now and does
3 it, you know, absolutely represent what the Clean
4 Power Plan will require? We can't say that yet
5 because the Clean Power Plan is in the early stages.
6 But is it still, you know, recognizing some cost,
7 some price for carbon in our analysis? It does do
8 that.

9 Q. And does the projection of that adder
10 price represent your best guess of least cost
11 compliance with carbon regulations?

12 A. No. I can't say that because, again, we
13 don't know what the implementation plans for the
14 Clean Power Plan will look like and what it will
15 require so is it representative of what may be
16 required, and the approach taken? I think it is. Is
17 it too high, too low? You know, I can't say at this
18 point.

19 Q. And you're aware that energy efficiency
20 is one possible mechanism for reducing carbon
21 emissions for compliance with the Clean Power Plan,
22 correct?

23 A. EPA, as we talked earlier, they aren't
24 using that to calculate the targets, but they
25 recognize that that could be an approach that, in

1 effect, reduces demand and potentially then could
2 lead to reductions in emissions.

3 Q. And I believe you testified, but correct
4 me if I'm wrong, that Ohio's target is more stringent
5 under the final Clean Power Plan than under the
6 proposed Clean Power Plan, correct?

7 A. That's correct.

8 Q. And could that require more energy
9 efficiency in Ohio to achieve compliance?

10 A. I can't say one way or the other.

11 Q. Could it require more carbon reductions
12 in Ohio to achieve compliance?

13 A. The target EPA set is more stringent.
14 How it's implemented and whether Ohio works with
15 other states on a broader regional approach that
16 would potentially provide flexibility in operation,
17 what that means for carbon levels in Ohio itself is
18 hard to say right now if you have a broader regional
19 approach.

20 Q. And in estimating a carbon price,
21 AEP Ohio didn't forecast any particular level of,
22 say, energy efficiency or heat rate improvements or
23 anything like that, did you?

24 A. The carbon price adder discussion is in
25 Mr. Bletzacker's testimony; he could address that

1 directly. But, in general, that's correct.

2 Q. I just have a couple questions to make
3 sure -- what I should ask you first is what I should
4 ask Mr. Thomas, if you'll bear with me a little bit.
5 So for any of the affiliate PPA units' Clean Water
6 Act permits, I should ask Mr. Thomas, correct?

7 A. I didn't catch the, Clean Water Act?

8 Q. Permits.

9 A. Permits? I would suspect Mr. Thomas may
10 not have detailed knowledge of those permits.

11 Q. Okay. So you would be the person to
12 speak to compliance with those permits?

13 A. You can start with me and see how far it
14 goes.

15 Q. Okay.

16 A. Because I might not have detailed
17 knowledge either.

18 Q. Okay. Well, let's find out.

19 MS. FLEISHER: If we may approach, your
20 Honor.

21 EXAMINER PARROT: You may.

22 MS. FLEISHER: Just so everyone is aware,
23 I have full copies of -- it's the Stuart Clean Water
24 Act permit for the attorney examiners, court
25 reporter, and witness and AEP. Everyone else is

1 getting excerpts of relevant portions but feel free
2 to let me know if you'd like a complete copy, and I'm
3 happy to provide one.

4 Q. Mr. McManus --

5 EXAMINER PARROT: Ms. Fleisher, before
6 you do that are you going to mark it?

7 MS. FLEISHER: Apologies, I forgot. If
8 we can mark this as ELPC Exhibit 7.

9 EXAMINER PARROT: So marked.

10 (EXHIBIT MARKED FOR IDENTIFICATION.)

11 Q. (By Ms. Fleisher) Mr. McManus, do you
12 recognize this as the Stuart station currently
13 effective Clean Water Act permit?

14 A. No, I don't. I'm not familiar with the
15 Stuart facility's permits.

16 Q. Would you ever review facility permits in
17 the course of your regular duties with the company?

18 A. Generally I don't. The people in my
19 department who are directly responsible for permits,
20 whether it's an air quality permit, water permit,
21 et cetera, would be the ones who review that or
22 undertake that process.

23 Q. And did you review any of the
24 environmental permits for the PPA units in the course
25 of preparing your testimony?

1 A. I did not.

2 Q. And are you aware that the Stuart station
3 has an adjacent landfill for the disposal of gypsum
4 from the FGD process?

5 A. Yes, I am.

6 Q. And that's the Carter Hollow landfill,
7 correct?

8 A. That sounds familiar.

9 Q. If you'll look at, briefly, at the list
10 of projects on Sierra Club Exhibit 7 Confidential, is
11 there a project listed for Stuart that mentions
12 Carter Hollow?

13 A. Yes, there is. There's a landfill
14 expansion project.

15 Q. And does your testimony -- or, rather,
16 your testimony doesn't address potential requirements
17 for treatment of leachate from the Carter Hollow
18 landfill under the steam electric Effluent Limitation
19 Guidelines, correct?

20 A. That's correct.

21 Q. And I can repeat it again if you want but
22 same question with respect to treatment of leachate
23 from the landfill under the CCR rule.

24 A. My testimony doesn't specifically address
25 those requirements on that level of detail.

1 Q. And referring you back to Sierra Club
2 Exhibit 7 Confidential, it's current that there's a
3 mercury treatment project listed for Stuart, correct?

4 A. That's correct.

5 Q. And do you know whether the Stuart
6 facility is subject to a compliance schedule
7 requiring it to improve its mercury treatment?

8 A. No, I'm not aware.

9 MS. FLEISHER: May I approach, your
10 Honor?

11 EXAMINER PARROT: You may.

12 MS. FLEISHER: So this will be ELPC
13 Exhibit 8. For the record, this is a Clean Water Act
14 permit for the Zimmer plant.

15 EXAMINER PARROT: So marked.

16 (EXHIBIT MARKED FOR IDENTIFICATION.)

17 Q. (By Ms. Fleisher) And to go through the
18 exercise, do you recognize this as the currently
19 effective Zimmer Clean Water Act permit?

20 A. No, I'm not familiar with this.

21 Q. Okay. And to make it a little faster, if
22 I were to give you copies of the Conesville -- or, if
23 I were to give you a copy of the Conesville Clean
24 Water Act permit, would you recognize that?

25 A. No, not necessarily.

1 Q. Okay. What about the Kyger Creek Clean
2 Water Act permit?

3 A. No.

4 Q. Sorry?

5 A. No.

6 Q. No, okay.

7 And for Zimmer do you know whether the
8 plant is subject to a compliance schedule for
9 treatment of its mercury discharges?

10 A. I don't know.

11 Q. For Conesville do you know whether the
12 plant has a variance allowing it to discharge mercury
13 at a level above the applicable water quality
14 standard?

15 A. Yes, it does.

16 Q. And are you aware that variance must be
17 renewed when the plant's permit expires?

18 A. Yes.

19 Q. Are you aware that EPA recently issued
20 regulations regarding the issuance of Clean Water Act
21 variances?

22 A. No, I'm not.

23 MS. FLEISHER: If I may approach, your
24 Honor.

25 EXAMINER PARROT: You may.

1 MS. FLEISHER: If we can have this marked
2 as ELPC Exhibit 9, it's a Federal Register notice
3 dated August 21st, 2015, and it's Water Quality
4 Standard Regulatory Revisions; Final Rule.

5 (EXHIBIT MARKED FOR IDENTIFICATION.)

6 Q. (By Ms. Fleisher) Mr. McManus, have you
7 ever seen this Federal Register notice?

8 A. I have not seen it. I assume that people
9 in my department who are responsible for tracking
10 these kind of issues are aware of it, familiar with
11 it, but I have not seen it.

12 Q. Okay. And I think we can all do the
13 math, but since it's dated August 21st, 2015, would
14 you have reviewed this or been aware of this prior to
15 the preparation of your testimony?

16 A. No.

17 Q. And, Mr. McManus, would you be the person
18 to ask about environmental violations at any of the
19 PPA units?

20 A. You can ask.

21 Q. Okay. Do you know whether any of the PPA
22 units have any unresolved environmental violations?

23 A. I believe the Stuart plant may have an
24 outstanding issue related to thermal discharges.

25 Q. And what's the status of that issue, if

1 you know?

2 A. I think the proceeding's still ongoing.
3 I believe there's an appeal in place or in process.
4 I don't know the schedule for sort of resolving that
5 appeal.

6 Q. And is that -- what body is that
7 proceeding before?

8 A. I believe it's the Ohio Appeals Board. I
9 forget the full title of it.

10 MS. FLEISHER: May we approach, your
11 Honor?

12 EXAMINER PARROT: You may.

13 MS. FLEISHER: If I can have this marked
14 as ELPC Exhibit 12.

15 EXAMINER PARROT: Ten.

16 MS. FLEISHER: Ten, sorry. For the
17 record, this is the EPA notice of violation regarding
18 the Stuart plant dated December 2014, December
19 24th, 2014.

20 EXAMINER PARROT: It's marked as ELPC
21 Exhibit 10.

22 (EXHIBIT MARKED FOR IDENTIFICATION.)

23 Q. Mr. McManus, have you seen this document
24 before? Take a minute to look through it.

25 A. I may have seen it before. I'm aware of

1 the issuance of this document and that Dayton Power
2 and Light is involved with EPA on it. And I don't
3 know -- I can't say for sure I've read the whole
4 thing before.

5 Q. But you're aware of an alleged opacity
6 violation regarding Stuart station?

7 A. Yes, I am.

8 Q. And to clarify for the record, opacity
9 violation is a violation involving particulate
10 emissions, correct?

11 A. It's related to the opacity which is the
12 visual appearance of the plume from the stack at the
13 facility, so it can relate to particulate emissions
14 but it's really -- it's a visual appearance reading,
15 that's what opacity is.

16 Q. And do you know the current status of
17 this asserted violation?

18 A. No, I don't.

19 Q. And in the course of preparing your
20 testimony, did you review the compliance status of
21 any of the PPA units?

22 A. I guess in general for the AEP-affiliated
23 units, I'd be generally familiar with it because
24 we're involved with that. For Stuart and Zimmer
25 we're not directly involved in that. We rely on the

1 operating owner. So I was aware of this. I think
2 there's a similar one maybe for Zimmer as well, but I
3 didn't review the status of that before preparing
4 testimony.

5 Q. Okay. I want to make sure I'm clear. So
6 you as a general matter were aware of the status of
7 the OVEC units or all of the nonjointly-owned units?

8 A. I guess I'd have more knowledge of the
9 AEP Generation Resources units, some knowledge of the
10 OVEC units because of the relationship we have with
11 their environmental department, some knowledge but
12 maybe less knowledge for Stuart and Zimmer.

13 Q. All right.

14 MS. FLEISHER: Can I approach one more
15 time?

16 EXAMINER PARROT: You may.

17 MS. FLEISHER: I'd like to have this
18 marked as ELPC Exhibit 11.

19 And, for the record, this is a letter
20 from U.S. EPA Region 5 dated December 16th, 2014,
21 also a notice of violation, this one regarding the
22 Zimmer plant.

23 EXAMINER PARROT: It's been marked as
24 ELPC Exhibit 11.

25 (EXHIBIT MARKED FOR IDENTIFICATION.)

1 Q. (By Ms. Fleisher) Mr. McManus, I think
2 you said you were aware of a similar opacity
3 violation regarding the Zimmer unit; is that correct?

4 A. Yes.

5 Q. Okay. And to the best of your knowledge,
6 is this document the EPA notice of violation
7 regarding that issue?

8 A. To the best --

9 MR. SATTERWHITE: Objection.

10 A. -- of my knowledge.

11 MR. SATTERWHITE: No foundation to ask
12 any questions on this yet.

13 MS. FLEISHER: He said he was aware that
14 there was a violation, and certainly to the extent
15 that he deals with environmental compliance, then I
16 think he can recognize an EPA notice of violation.

17 MR. SATTERWHITE: Just like the last one
18 that was put in front of him, your Honor, he said he
19 doesn't know if this is the one or not. He's aware
20 generally of the topic, but he's not aware if this is
21 the letter that represents that, if that's what it
22 is.

23 MS. FLEISHER: I'm happy to rephrase it
24 to make it not about the document if that would be
25 agreeable.

1 MR. SATTERWHITE: Thank you.

2 Q. (By Ms. Fleisher) Mr. McManus, does this
3 refresh your recollection that there's an outstanding
4 opacity violation asserted regarding the Zimmer
5 station?

6 A. There's an outstanding allegation of a
7 violation related to opacity, yes.

8 Q. And are you aware of the current status
9 of this asserted violation?

10 A. No, I am not.

11 Q. And are you aware that several of the PPA
12 units are the subjects of a consent decree with the
13 EPA?

14 A. Can you be more specific?

15 Q. Sure. Are you aware that in 2007 AEP
16 entered into a consent decree with EPA to resolve
17 asserted clean air violations?

18 A. Yes.

19 Q. And do you deal at all with
20 implementation of that consent decree?

21 A. Yes, I do.

22 Q. And do you deal with the implementation
23 of the SO2 -- or, of the emission limitations
24 applicable to AEP plants under that consent decree?

25 A. I'm aware of what the requirements are.

1 I'm involved in sort of, you know, communicating with
2 that part of the company on how they're operating.

3 I'm involved and my department's involved in
4 preparing reports that are required to be submitted
5 to EPA under the consent decree.

6 Q. Okay. And are you aware that emission
7 limitations under that consent decree are applied in
8 some instances across a set of AEP plants rather than
9 to any particular plant?

10 A. Yes.

11 Q. Okay. And are you involved in decisions
12 regarding how to achieve compliance across those
13 plants?

14 A. Well, I'm involved in the process that
15 tracks compliance. I'm involved in the process that
16 tracks that compliance so those limitations, those
17 caps are essentially based on the controls that are
18 in place at those units and that those controls are
19 operated consistent with requirements of the consent
20 decree. And the result of that typically is that the
21 units, as a whole, stay within that emission
22 limitation.

23 Q. And are you aware that the consent decree
24 bars AEP from using allowances to achieve compliance
25 with those emission limitations?

1 A. Yes.

2 Q. And so if there were a hypothetical
3 situation where, let's say, on one of the AEP units
4 not included within the PPA, emissions controls
5 failed and emissions became very high, you wouldn't
6 be involved in the decision as to how to ensure
7 compliance with the consent decree, would you?

8 A. I would probably be involved in
9 discussion, but the starting point if an emissions
10 control system failed on another unit under the
11 consent decree, there's an obligation to take that
12 unit out of service and to remedy whatever the
13 situation is and operate the unit with the controls
14 as required. So I wouldn't anticipate a control
15 equipment, you know, performance issue to create a
16 problem for the overall cap because we have to
17 address that on the unit in a short period of time
18 under the consent decree.

19 Q. And, to the best of your knowledge, has
20 generation at any of the units subject to the consent
21 decree ever been curtailed in order to ensure
22 compliance with the consent decree?

23 A. It's possible that, again, the consent
24 decree requirements to operate the control equipment
25 on a continuous basis, to keep it in good operating

1 condition. If there is a short-term issue in
2 performance, we may have curtailed a unit for a short
3 period of time to fix whatever the issue might be,
4 maybe a reagent feed system or something, but that
5 would be a very short period of time. Anything that
6 would take, you know, a longer period, longer than a
7 day or so, you know, we would look at actually taking
8 the unit out of service; again, because we're
9 required to operate the units with controls operating
10 on a continuous basis when the units are operating.

11 Q. One minute.

12 MS. FLEISHER: I believe that's all. I
13 have some questions for confidential barring the
14 situation where other parties ask them first.

15 EXAMINER PARROT: Thank you,
16 Ms. Fleisher.

17 Mr. Beeler?

18 MR. BEELER: No questions. Thank you.

19 EXAMINER PARROT: With that I think some
20 of the parties have indicated that they have
21 questions that will require either counsel or the
22 witness to reveal what's been designated as
23 confidential information so, Mr. Nourse, I'm going to
24 ask for your help again with that process so we can
25 prepare to close the room.

1 While we're doing that I would just state
2 on the record that as was the bench's practice
3 yesterday, I will be calling only on those counsel
4 who have indicated already during the public
5 cross-examination that they have questions that may
6 go into confidential information with this witness.

7 I would also reiterate that it is the
8 Bench's preference that as much of your questioning
9 be done on the public record as possible, that is for
10 the interest of having a transparent proceeding. We
11 should have very few questions, they should be
12 pointed questions that you're asking to the witness
13 during the confidential session.

14 The doors have been closed.

15 MR. NOURSE: The room is good, your
16 Honor.

17 EXAMINER PARROT: All right. At this
18 point we're going to go into our confidential
19 session.

20 (CONFIDENTIAL PORTION EXCERPTED.)
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(OPEN RECORD.)

EXAMINER PARROT: We are going to go back into the open session at this point. Do you have any redirect, Mr. Satterwhite?

MR. SATTERWHITE: No redirect, your Honor. Thank you.

EXAMINER PARROT: Thank you very much. I believe the company has already moved for the admission of Company Exhibit No. 4. Do I hear any objections to its admission?

(No response.)

EXAMINER PARROT: Hearing none, Company Exhibit No. 4 is admitted into the record.

1 (EXHIBIT ADMITTED INTO EVIDENCE.)

2 EXAMINER PARROT: Thank you very much,
3 Mr. McManus.

4 THE WITNESS: Thank you.

5 EXAMINER PARROT: Ms. Henry.

6 MS. HENRY: We request to move exhibits,
7 Sierra Club Exhibits 7 through I believe it's 14 --
8 through Sierra Club 15 into the record.

9 EXAMINER PARROT: Any objections?

10 MR. SATTERWHITE: Your Honor, I would
11 like to talk about 13 and 15. The others I don't
12 have objections to.

13 EXAMINER PARROT: Thirteen and 15 you
14 said?

15 MR. SATTERWHITE: Yes, please.

16 EXAMINER PARROT: I'm having trouble
17 hearing because of the door.

18 MR. SATTERWHITE: I mumbled, I apologize.

19 EXAMINER PARROT: Go ahead,
20 Mr. Satterwhite.

21 MR. SATTERWHITE: Number 13 is the
22 document counsel reported came from the EPA website,
23 has the designation on the bottom. The concerns I
24 have is that the witness just accepted it came from
25 counsel, and as your Honor pointed out, there are not

1 all the Ohio counties listed on here so I guess I
2 would object to the extent that I'm not sure this is
3 a complete document, and the witness was accepting
4 the representation of counsel, couldn't sponsor the
5 document themselves.

6 EXAMINER PARROT: Response? Not every
7 county -- as everyone knows, not every county has an
8 ambient air quality monitor. That's why they adopted
9 the 2010 SO2 rules that allowed for modeling because
10 of the lack of air monitors throughout the country
11 which is why when you look there is not -- every
12 county in a state is not represented. Anybody who
13 knows about air quality monitoring knows that fact.

14 My second thing is I gave you the URL for
15 it, it was on EPA's website, they can take judicial
16 notice of this document, it's coming from the federal
17 government, it's letting them know what counties are
18 not in attainment under the 2011 through 2013
19 monitoring data.

20 MR. SATTERWHITE: Your Honor, I'll put
21 some aside -- I guess this is the document that was
22 used in deposition, I asked for the URL number
23 because it wasn't on there so I couldn't see this
24 ahead of time.

25 Second, counsel just testified what

1 everybody knows too. I didn't know that. I believe
2 the witness was asked if that was the case and the
3 witness also was not aware what Ms. Fleisher when she
4 asked some questions as well about why those were on
5 there.

6 So I appreciate the, I won't say
7 condescending lecture about what everybody knows, but
8 I don't think that developed in the record other than
9 what counsel testified to today.

10 MS. FLEISHER: Just to correct, I believe
11 he did testify that there aren't monitors in every
12 county.

13 MS. HENRY: We can check the record on
14 that.

15 EXAMINER PARROT: All right. And with
16 respect to Sierra Exhibit 15, Mr. Satterwhite.

17 MR. SATTERWHITE: I would just ask that
18 the full response be provided. I know it was long
19 and I appreciate maybe she was trying to save paper
20 but for purposes of the record if they could
21 supplement and provide the entire response, then I
22 wouldn't have any objection.

23 EXAMINER PARROT: But you're not making a
24 similar request for 14 then.

25 MR. SATTERWHITE: Fourteen had everything

1 involved I believe, let me check. Thank you for your
2 help.

3 MS. HENRY: Fourteen was the entire.

4 MR. SATTERWHITE: So to the extent those
5 weren't complete I would like all of them.

6 EXAMINER PARROT: Well, I think that's
7 helpful to me because I didn't know whether 14 was
8 complete.

9 MS. HENRY: Can we just provide -- how
10 many copies?

11 MR. SATTERWHITE: We have it. I just
12 want to make sure the exhibit that's the official
13 exhibit for the record has all the pages.

14 MS. HENRY: Just one additional?

15 EXAMINER PARROT: Well, the court
16 reporters, the Bench. Then you need to work with
17 counsel if anybody needs access to it, I assume they
18 do not, but if they do.

19 MS. HENRY: And I would note that during
20 the deposition, Ms. Williams, we took the deposition,
21 told him where to find it, the information was
22 obtained from the proposed rules website.

23 MR. SATTERWHITE: If we're at that point,
24 I don't mean to argue back and forth, but, your
25 Honor, if you would like me to show the deposition

1 where I asked for the site and was told it would be
2 provided, I didn't get it.

3 EXAMINER PARROT: All right. I just want
4 to reiterate, make sure I understand this one last
5 time. So with respect to Sierra Exhibit 14, what I
6 have in my hands is Ambient Air Quality AEP Ohio
7 provided in its supplemental discovery response
8 because if I'm looking at the page numbering of the
9 documents --

10 MR. SATTERWHITE: Yes.

11 EXAMINER PARROT: -- within this, I don't
12 have all the pages here. I just want to be sure.

13 MR. SATTERWHITE: As this witness
14 indicated, this was a collection of documents
15 provided for the project so for ease we tried to put
16 of 22, for example, on 14. So the entire attachment
17 was 22 pages.

18 EXAMINER PARROT: Okay.

19 MR. SATTERWHITE: Whereas, 15, it was I
20 think of 170-some number, of 172, and we ended at 19.

21 EXAMINER PARROT: Okay. Thank you for
22 that clarification.

23 All right. At this point I am going to
24 admit into the record Sierra Exhibits 7 through 15.
25 I will say with respect to Exhibit No. 13,

1 Mr. Satterwhite, that's one we will allow the
2 Commission to determine whether or not it deems that
3 the exhibit should have any weight in this
4 proceeding.

5 MR. SATTERWHITE: Thank you.

6 EXAMINER PARROT: I will say that.

7 (EXHIBITS ADMITTED INTO EVIDENCE.)

8 EXAMINER PARROT: With respect to 15, I
9 will ask, as we just discussed, Ms. Henry, that you
10 make sure the court reporter and the Bench have the
11 complete discovery response.

12 MS. HENRY: We can provide those
13 tomorrow. Is tomorrow acceptable?

14 EXAMINER PARROT: Yes, that's fine.
15 Thank you.

16 MR. SATTERWHITE: Thank you.

17 EXAMINER PARROT: Ms. Fleisher, your
18 exhibits.

19 MS. FLEISHER: Thank you, your Honors.
20 So at this point take it two at a time, for ELPC
21 Exhibits 7 and 8, I don't know if we can stipulate to
22 the admission of those. I got them off the Ohio EPA
23 website or, alternatively, just take judicial notice
24 that those are the permits.

25 MR. SATTERWHITE: I mean, your Honors,

1 the witness wasn't able to speak to these at all.
2 They really weren't used for purposes of
3 cross-examination. He just said -- he discussed his
4 full extent of what he knew about it, so it really
5 just looks like a data dump that the witness couldn't
6 even authenticate so I would oppose that and also the
7 relevance in the case.

8 MS. FLEISHER: Sorry, to be clear, my
9 intention is to use them with Witness Thomas. If you
10 want to see if he can authenticate them, we can go
11 through that, I just didn't know.

12 EXAMINER PARROT: So let's wait on those
13 then.

14 MS. FLEISHER: Sure. Okay.

15 For ELPC Exhibit 9, I'd like to ask the
16 Bench to take notice of that. It's a Federal
17 Register notice, official publication of the United
18 States Government of an EPA regulation that is --

19 MR. SATTERWHITE: No objection to that.

20 EXAMINER PARROT: All right. That's
21 fine.

22 MS. FLEISHER: And for 10 and 11, I'm
23 going to just reserve those for Witness Thomas.

24 EXAMINER PARROT: All right. So we have
25 agreement at this point ELPC Exhibit 10 is in the

1 record of the proceeding. We will deal with the
2 remaining ELPC exhibits down the road.

3 MR. BEELEER: Nine.

4 EXAMINER PARROT: Yes, I'm sorry, 9. I
5 misspoke. ELPC Exhibit 9 which is the final rule.

6 Thank you, Ms. Fleisher.

7 (EXHIBIT ADMITTED INTO EVIDENCE.)

8 MS. FLEISHER: Thank you, your Honors.

9 EXAMINER SEE: Okay.

10 MR. NOURSE: Can we do two procedural
11 things before you go to the next witness?

12 EXAMINER SEE: Let's hear it.

13 MR. NOURSE: During one of the breaks
14 earlier we distributed the errata sheets for
15 Mr. Thomas and Mr. Bletzacker. If anyone wasn't here
16 earlier that needs a copy, let me know.

17 And then the second thing, I wanted to
18 report back on the workpaper discussion we had before
19 lunch, and the short answer is I think we're good to
20 go. The narrative response that Ms. Henry pointed
21 out earlier was not what we normally consider a
22 workpaper. It didn't link to another workpaper, and
23 it didn't show the calculation, the narrative. It
24 had some errors in the file names that were mentioned
25 and the S1 Excel document we were given was blank.

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1 It just had the values as I mentioned earlier. So I
2 think we worked through it, and we don't need to have
3 any additional information prior to the deposition.
4 Thank you.

5 EXAMINER SEE: Good to hear. We're ready
6 to move on?

7 MS. HENRY: Is it possible to take a
8 five-minute break just to reconvene because
9 Mr. Thomas and Mr. McManus overlapped so much in the
10 issues they covered, just to make sure, to save time.

11 EXAMINER SEE: Let's reconvene at
12 4 o'clock.

13 MS. HENRY: Huh?

14 EXAMINER SEE: Yes.

15 (Recess taken.)

16 EXAMINER SEE: Let's go on the record.
17 Mr. Thomas, if you would raise your right
18 hand.

19 (Witness sworn.)

20 EXAMINER SEE: Thank you. Have a seat.

21 - - -
22
23
24
25

1 TOBY L. THOMAS

2 being first duly sworn, as prescribed by law, was
3 examined and testified as follows:

4 DIRECT EXAMINATION

5 By Mr. Nourse

6 Q. Good afternoon, Mr. Thomas.

7 A. Good afternoon.

8 Q. Did you file testimony in this
9 proceeding?

10 A. I did.

11 Q. And can you state your name and your
12 capacity at AEP.

13 A. My name's Toby L. Thomas. I'm the vice
14 president of Competitive Generation.

15 Q. And that vice presidency is under the AEP
16 Generation Resources organization?

17 A. Yes, it is.

18 MR. NOURSE: Your Honor, I'd like to mark
19 Mr. Thomas's prefiled testimony as AEP Ohio Exhibit
20 No. 5.

21 EXAMINER SEE: So marked.

22 MR. NOURSE: I've given the reporter a
23 copy.

24 (EXHIBIT MARKED FOR IDENTIFICATION.)

25 Q. (By Mr. Nourse) Mr. Thomas, do you have a

1 document we just marked as AEP Ohio Exhibit No. 5?

2 A. I do.

3 Q. And is this the testimony prepared by you
4 or under your direction?

5 A. Yes, it is.

6 Q. Do you have any changes, additions, or
7 corrections that you'd like to make this afternoon?

8 A. I do not.

9 Q. And if we were to ask you the same
10 questions today, would your answers be the same as is
11 reflected in Exhibit 5?

12 A. Exhibit 5.

13 Q. Your testimony. We just marked it.

14 A. Oh, I'm sorry. Yes.

15 Q. We just marked it as an exhibit.

16 A. Sorry.

17 Q. Okay. So let's try it one more time just
18 to be clear. So if we were to ask you the same
19 questions contained in your written testimony today,
20 would the answers be the same?

21 A. Yes.

22 Q. Thank you.

23 MR. NOURSE: Your Honor, I'd move for the
24 admission of AEP Ohio Exhibit No. 5, subject to
25 cross-examination.

1 EXAMINER SEE: Okay. Mr. Mendoza.

2 MR. MENDOZA: Thank you, your Honor.

3 - - -

4 CROSS-EXAMINATION

5 By Mr. Mendoza:

6 Q. Good afternoon, Mr. Thomas.

7 A. Good afternoon.

8 Q. My name is Tony Mendoza, and I represent
9 Sierra Club in this proceeding. Your employer is AEP
10 Generation Resources, Inc; isn't that right?

11 A. Yes, that's correct.

12 Q. And if I refer to AEP Generation
13 Resources, Inc., simply as AEP Generation, will you
14 understand what I mean?

15 A. I will.

16 Q. While we're on definitions if I refer to
17 the applicant in this proceeding, Ohio Power Company,
18 simply as AEP Ohio, will you understand what I mean?

19 A. I will.

20 Q. Okay, great. And your title is vice
21 president of Competitive Generation, correct?

22 A. That's correct.

23 Q. And you are responsible for long-term
24 planning of capital investments at AEP Generation
25 plants; isn't that right?

1 A. I am responsible for the ones that are
2 under my purview, yes.

3 Q. And an aspect of long-term planning is
4 environmental compliance, right?

5 A. Yes, that is one aspect.

6 Q. And with respect to environmental
7 compliance, your responsibilities include evaluating
8 future investments that are planned for complying
9 with environmental regulations; isn't that right?

10 A. That's a piece of it, yes.

11 Q. And part of your role is, along with
12 others, making a final decision on which projects to
13 go forward with, right?

14 A. That is true, along with others.

15 Q. You are not responsible, though, for
16 interpreting environmental regulations to determine
17 what's required to comply with those regulations,
18 right?

19 A. That is correct. I do not do that.

20 Q. That would be Mr. McManus's group that is
21 responsible for that function, correct?

22 A. Yes, that is true, along with our
23 environmental counsel.

24 Q. Okay. So for a particular environmental
25 requirement you are not responsible for developing

1 what the appropriate technical compliance projects
2 should be, right?

3 A. No, I am not personally. Our engineering
4 group in conjunction with our projects group inside
5 American Electric Power develops a suite of
6 technology that could be used to meet a limit for a
7 new regulation or existing regulation but I do not --
8 I do not do that specifically.

9 Q. Let's look at page 6 of your testimony
10 which has been marked as Company Exhibit 5.

11 A. I'm there.

12 Q. Okay. And the first sentence I think
13 talks about your responsibilities. I want you to
14 focus on the second sentence. Would you mind reading
15 for me that sentence that starts with "Aside from
16 day-to-day operations."

17 A. That begins with?

18 Q. Yes.

19 A. "Aside from day-to-day operations, this
20 also includes scrutinizing future investments that
21 are planned for complying with the existing and
22 anticipated environmental regulations that are
23 described by AEP Ohio Witness McManus in this
24 proceeding."

25 Q. Thank you. So to be clear, it's

1 Mr. McManus's group, not yours, that decides when an
2 environmental regulation becomes anticipated, right?

3 A. Yes, that's correct.

4 Q. And it is Mr. McManus's group, not yours,
5 that decides the timeline necessary for compliance
6 with a particular environmental requirement, right?

7 A. Yes, I believe that's true.

8 Q. Air emissions modeling also occurs under
9 Mr. McManus's direction, right?

10 A. Based on my experience, yes, I believe
11 that's what happens.

12 Q. And you don't do air emissions modeling,
13 correct?

14 A. I do not.

15 Q. And you do not review air monitoring data
16 in the course of your work, right?

17 A. I do not.

18 Q. And you don't have any --

19 A. Let me clarify. When you -- what do you
20 mean by "air monitoring data"?

21 Q. You know, there's a network of air
22 monitoring equipment around the country and the state
23 of Ohio that measures the amount of air pollution
24 that's in the ambient air. It's used by regulators
25 and by the regulated community to determine

1 compliance with certain requirements and I'm
2 wondering if you review that type of information.

3 A. No, I do not. I just wanted to clarify.
4 Thank you.

5 Q. My pleasure.

6 And you don't have any responsibilities
7 with respect to the OVEC plants, right?

8 A. I do not. I'm not allowed to have any
9 interaction with the OVEC plants because they're a
10 regulated affiliate, and it's not allowed by the
11 FERC.

12 Q. Thank you. And Conesville unit 4, Stuart
13 units 1 through 4, and Zimmer 1 are all co-owned
14 units, right?

15 A. That is correct.

16 Q. And for each of these co-owned units
17 there is an operating committee on which each owner
18 company has one representative, right?

19 A. Well, there is one operating committee
20 for the group of plants. I don't think we -- we
21 don't have separate operating committees for each
22 plant so it's for the co-owners we have one operating
23 committee that oversees the decisions that are made
24 for the co-owned plants.

25 Q. So just to be clear, so for each of those

1 three plants we discussed there's the same three
2 co-owners and there's an operating committee that
3 oversees the operations of those plants and each of
4 the owner companies has one representative on that
5 committee; is that right?

6 A. Yes, that's correct.

7 Q. Okay. And you are AEP Generation's
8 representative on that operating committee, right?

9 A. I am.

10 Q. Okay. And it is the company that
11 operates each of these units that we've been talking
12 about, the co-owned units, that takes the lead on
13 what anticipated environmental compliance obligations
14 will be for the co-owned units, right?

15 A. That is true.

16 MR. DARR: Can I have that question and
17 answer back, please.

18 (Record read.)

19 MR. DARR: Thank you.

20 Q. And continuing to talk about this
21 operating committee, the operating committee
22 ultimately decides what investments will be made at
23 those units, right?

24 A. Yes, the operating committee takes a look
25 at each -- each company or each co-owner submits for

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1 their operated unit what a forecast is for, you know,
2 operations, maintenance expense, and capital and then
3 the engineering and operating committee which I'm a
4 part of ultimately oversees and approves that plan.

5 Q. Okay. And those decisions are made by a
6 vote of the operating committee, right?

7 A. Yes.

8 Q. Okay. And so AEP Generation doesn't have
9 exclusive control over the decision to make a certain
10 investment in any of these plants, right, any of the
11 co-owned plants, right?

12 A. I'd have to look at the agreements. I
13 don't recall -- the voting rights can change
14 depending on what the subject is, so not that I
15 recall, but I haven't opened the agreements for a
16 while to see specifics.

17 Q. Okay. Just to be clear, my question was
18 whether AEP Generation has exclusive control. And so
19 what the specific voting rights would be, there's
20 no -- of the co-owned units AEP Generation doesn't
21 have exclusive control to make an investment decision
22 with respect to that unit, right?

23 A. I believe that's true, yes.

24 Q. Okay. And AEP Ohio doesn't have
25 exclusive control over investment decisions at those

1 co-owned units, right?

2 A. Today AEP Ohio has no representation on
3 that committee. They have no ownership interest.

4 Q. Okay. So the answer to my question would
5 be yes, then. They don't have --

6 A. I just wanted to clarify AEP Ohio has no
7 ownership interest in those plants so by default, no,
8 they would have no say in what goes on in those
9 plants.

10 Q. Thank you.

11 So let's look back at your written
12 testimony staying on page 6, at the very bottom,
13 would you please read for me the sentence that starts
14 with "For the regulations described" and then carries
15 over onto the next page.

16 A. Okay, page 6 beginning with line 22.

17 Q. Yes.

18 A. Yes. "For the regulations described by
19 Witness McManus, the Affiliated PPA Units are either
20 already equipped with environmental controls
21 necessary to comply with those rules, or AEPGR has
22 included budgetary estimates for future reasonably
23 anticipated environmental compliance projects in its
24 financial analyses."

25 Q. Thank you very much.

1 And when you say AEP Generation has
2 included budgetary estimates in its financial
3 analyses, you mean the financial analyses done to
4 support AEP Ohio's application in this proceeding,
5 right?

6 A. Yes, that is correct.

7 Q. And the financial analyses you're
8 referring to are those discussed in the testimony of
9 Dr. Pearce, right?

10 A. Yes.

11 Q. So for regulations for which the
12 affiliated PPA units -- and I apologize, we haven't
13 defined the term affiliated PPA units but I mean that
14 to include the units that have been included in this
15 proposal excluding the OVEC units. Would you
16 understand what I mean when I use the term in that
17 way?

18 A. Yes.

19 Q. Okay.

20 A. Thank you for clarifying.

21 Q. You're welcome.

22 Okay. And so for the regulations for
23 which the affiliated PPA units are not already
24 compliant, you provided budgetary estimates of future
25 reasonably anticipated environmental compliance

1 projects to Dr. Pearce, right?

2 A. I did.

3 Q. And those regulations described by -- and
4 those regulations are the Cross-State Air Pollution
5 Rule, the Mercury Air Toxics Standards, the Coal
6 Combustion Residuals Rule, 316(b) Rule, Effluent
7 Limitation Guidelines, and are those the regulations
8 that we're talking about?

9 A. Yes, I believe so. They are listed on
10 page 7 of my testimony at lines 6 through 11.

11 Q. Thank you. It would have been a lot
12 easier if I referred you to your testimony, but thank
13 you for answering that question.

14 And that's the entire list of
15 environmental rules for which you provided budgetary
16 estimates to Dr. Pearce, right?

17 A. Well, again, there are existing
18 environmental rules that we have in place today,
19 those are already built into the budgets. These are
20 for new or anticipated rules and projects that are
21 associated therewith.

22 Q. Okay. But for new or anticipated
23 projects, that's the entire list of environmental
24 regulations for which you provided estimates to
25 Dr. Pearce, right?

1 A. Yes, that is correct.

2 Q. And you don't have an opinion on whether
3 there are other regulations that could lead to
4 environmental compliance projects during the life of
5 the proposed PPA, right?

6 A. No. As we discussed and as Witness
7 McManus discussed earlier today, we rely heavily on
8 his group and our environmental counsel to help us
9 interpret any of those rules and they do it for the
10 entire corporation.

11 Q. And the budgetary estimate you provided
12 to Dr. Pearce includes all of the anticipated costs
13 that you assume would be needed for compliance with
14 the rules listed on page 7 of your written testimony,
15 right?

16 A. They are the ones that, yes, that I
17 reasonably anticipate. They're mainly focused on
18 capital investments for new equipment that's going in
19 to be able to meet these requirements.

20 MR. MENDOZA: Could I have that answer
21 read back, please?

22 (Record read.)

23 Q. Okay. So the answer to my question was,
24 yes, your budgetary estimate includes all of the
25 environmental compliance costs for these rules that

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1 are listed on page 7 of your testimony, right? The
2 anticipated environmental compliance costs.

3 A. All the reasonable costs, yes. I agree.

4 Q. Okay. Thank you.

5 And you do not know how Dr. Pearce
6 incorporated these budgetary estimates that you
7 provided to him, right?

8 A. No, I don't know specifically. I know in
9 my experience in the past with looking at analysis
10 similar to this that they would take what, you know,
11 we would provide and incorporate it into a financial
12 model of some sort.

13 Q. But in this instance, in this case you
14 don't know how he used the information that you
15 provided him, right?

16 A. I don't know the specific details, no.

17 Q. Okay. And those budgetary estimates were
18 just for capital costs, correct?

19 A. The ones that I provided for him were
20 just for the capital costs. We did, as we looked at
21 the different pieces of equipment, there are sub
22 pieces with these solutions or capital projects that
23 are going in, there's other older equipment that will
24 be coming out of service. So based on my experience
25 we focused on the capital investments and the

1 operation and maintenance costs associated therewith.

2 I believe it will be small based on the
3 fact that there's a lot of equipment that's coming
4 out of service and there's new equipment going in
5 service.

6 MR. MENDOZA: Your Honors, I would move
7 to strike his answer beginning with where he said "we
8 did." I asked him if the estimates he provided
9 included capital costs only. He answered the
10 question and then went on to add a gratuitous
11 response.

12 MR. NOURSE: Well, your Honor, the
13 question asked budgetary estimates were just for
14 capital costs. Obviously he's entitled to explain
15 his answer.

16 EXAMINER SEE: I'll allow the answer to
17 stand as it was presented.

18 MS. FLEISHER: Could we have that answer
19 reread?

20 (Record read.)

21 MS. FLEISHER: Thank you.

22 Q. And just to be clear, you never estimated
23 what those operating and maintenance costs would be,
24 correct?

25 A. I did not. It's simply based on my

1 experience in operating fleets and similar equipment
2 like this.

3 Q. And the budgetary estimates that you
4 provided to Dr. Pearce run through 2024, right?

5 A. I believe that's correct, yes.

6 Q. And it's not reasonable to assume that
7 environmental compliance costs for any of the PPA
8 units will be zero dollars after 2024, right?

9 A. What type of dollars are you talking
10 about? I mean capital investments? O&M investments?
11 Can you help me understand what you're referencing?

12 Q. Well, I guess we can take it one at a
13 time. It's not reasonable to assume that there will
14 be zero operation and maintenance costs associated
15 with environmental requirements for the years after
16 2024, right?

17 A. Well, I was only asked to provide a
18 forecast through 2024. I mean, I think it also would
19 be reasonable to assume that once those projects are
20 in service, those same type of expenses would move
21 forward into later years.

22 Q. Okay. So it would not be reasonable to
23 assume there would be zero dollars spent on operation
24 and maintenance costs for environmental projects,
25 right?

1 A. No. I don't know how you could run a
2 plant with zero expense.

3 Q. And it's also not reasonable to assume no
4 additional environmental capital costs after 2024,
5 right?

6 A. Well, again, the focus of my testimony
7 and around these specific units is around the
8 projects that we've identified that we know, believe
9 are most likely to be needed. As far as any
10 significant capital investments beyond like -- if
11 there are rules out there that are firm, I can't say
12 either way whether there would be additional capital
13 or not.

14 Q. Do you know what year the applicant
15 assumed the Zimmer plant would retire in this
16 proceeding, in the application it filed in this
17 proceeding?

18 A. I do.

19 Q. And do you think it's reasonable -- and
20 what is that year?

21 A. Well, I believe it was 2051 but I'd have
22 to check.

23 Q. I apologize. Are you finished?

24 A. I am.

25 Q. And it's not reasonable to assume there

1 will be no additional environmental capital costs
2 after 2024 at the Zimmer plant assuming it operated
3 till 2051, right?

4 A. Again, I wasn't asked to provide a
5 forecast beyond 2024.

6 MR. MENDOZA: Your Honor, I'd move to
7 strike the answer as nonresponsive.

8 MR. NOURSE: Your Honor, I think the
9 problem is Mr. Mendoza is assuming facts not in
10 evidence. There's nobody that's claimed that there's
11 no capital costs after 2024, that's why it's
12 confusing to the witness. He's trying to be helpful
13 and respond.

14 MR. MENDOZA: Your Honors, they proposed
15 to operate their plants for many years beyond 2024.
16 The specific dates they proposed aren't particularly
17 important, but I don't think we need to go through
18 every plant's proposed retirement date, but I want to
19 know if it's reasonable to assume that the Zimmer
20 plant would have zero capital dollars expenditures to
21 achieve capital compliance in the years that they
22 haven't forecasted.

23 MR. NOURSE: And I think he already
24 answered the question categorically for any plants so
25 we don't need to go through every plant, I agree.

1 EXAMINER SEE: The question was answered
2 and it stands. I'm not going to strike. You can try
3 again.

4 Q. (By Mr. Mendoza) And so you would agree
5 there will likely be additional environmental capital
6 costs after 2024, right?

7 A. I would agree there would, but I also
8 agree in the financial analysis there would also be
9 additional revenue that would come along with those
10 same units that continue in operation.

11 Q. Okay. So you would agree with me that
12 there's uncertainty regarding what those costs for
13 environmental compliance would be after 2024, right?

14 A. Yeah, I would agree there's some
15 uncertainty out there. Yes.

16 Q. Okay.

17 MR. MENDOZA: Your Honors, may we go off
18 the record?

19 EXAMINER SEE: Yes.

20 (Discussion off the record.)

21 EXAMINER SEE: Let's go back on the
22 record.

23 MR. MENDOZA: Your Honors, may I
24 approach?

25 EXAMINER SEE: Yes.

1 MR. MENDOZA: I'd like to ask this
2 witness about what's already been marked as Sierra
3 Club 7 -- may we go back off the record, your Honor?

4 EXAMINER SEE: Yes.

5 (Discussion off the record.)

6 EXAMINER SEE: Let's go back on the
7 record.

8 Mr. Mendoza.

9 MR. MENDOZA: Yes.

10 Q. (By Mr. Mendoza) Mr. Thomas, do you a
11 document in front of you that is labeled Sierra Club
12 interrogatory response 2-45?

13 A. I'm assuming this attachment is what goes
14 with it. There's no other labels on this attachment,
15 but I'm assuming this is what was part of that
16 interrogatory.

17 Q. Okay. And the attachment you're
18 referring to is a table of various environmental
19 compliance projects; is that right?

20 A. That is correct.

21 Q. Okay. Have you seen this document
22 before?

23 A. I have.

24 Q. And you are the only witness identified
25 on this document, correct?

1 MR. NOURSE: Mr. Mendoza, are you
2 referring to the attachment or the discovery
3 response?

4 MR. MENDOZA: The discovery response
5 where it says prepared by Toby L. Thomas.

6 Q. That's you, correct, Mr. Thomas?

7 A. Correct.

8 Q. Okay.

9 MR. NOURSE: Just for the record, I mean,
10 the supplemental response includes Thomas and Pearce,
11 which I believe is what the attachment relates to.

12 MR. MENDOZA: Okay.

13 MR. NOURSE: Thank you.

14 MR. MENDOZA: Thank you for the
15 clarification, Counsel.

16 Your Honor, may I approach?

17 EXAMINER SEE: Yes.

18 MR. MENDOZA: I'm giving the witness just
19 the written data response for Sierra Club 2,
20 interrogatory 45 that includes the supplemental
21 response. It's already been marked as Sierra Club
22 Confidential Exhibit 7.

23 EXAMINER SEE: Okay.

24 Q. (By Mr. Mendoza) Okay. Mr. Thomas, would
25 you look under response little a, do you see where

1 the document states "See Sierra Club INT-2-045
2 Confidential Attachment 1, this attachment reflects
3 the environmental projects that are provided in the
4 company's response to Sierra Club INT-1-089 in the
5 set of data requests which includes the capital
6 investment and relevant timing associated with these
7 projects? Do you see that statement?

8 A. Yes, I do. And it looks like the first
9 response of a., i. romanette, and ii. romanette.

10 Q. Thank you, Mr. Thomas.

11 MR. NOURSE: Your Honor, I'm sorry. I'm
12 sorry, Mr. Mendoza, just to -- I believe you said
13 Sierra Club interrogatory 1-89? Is that what you
14 read?

15 MR. MENDOZA: That is what I read.

16 MR. NOURSE: It says 2-89 just to be
17 clear. Do you see that?

18 MR. MENDOZA: Okay.

19 Q. (By Mr. Mendoza) To keep things moving I
20 think we'll -- my questions aren't going to relate to
21 which data response was referenced there. And
22 without referring to any specific numbers you'd agree
23 with me, Mr. Thomas, that if there's a project listed
24 on Attachment 1, Confidential Attachment 1, AEP
25 Generation assumed that it would need to carry out

1 the specified project between now and 2024, right?

2 A. Again, for clarification, Attachment 1 is
3 the table?

4 Q. That's right.

5 A. Yes, I would agree.

6 Q. Okay. And without referring to any
7 numbers specifically, you would agree with me that
8 AEP Generation assumed it would need to incur the
9 capital costs identified in the attachment,
10 Confidential Attachment 1 between now and 2024,
11 right?

12 A. I mean, that is correct, based -- like
13 Witness McManus talked about earlier today, based on
14 their evaluation of timing and so forth and then
15 working with engineering and projects, come up with
16 this forecast of when it would need to be in service
17 and the forecasted amounts such that you see here for
18 each respective project.

19 Q. Okay. And, again, without referring to
20 any numbers specifically the costs reflected on the
21 attachments to Sierra Club 7, were they environmental
22 compliance capital costs that you provided to
23 Mr. Pearce? Right?

24 A. Which is Sierra Club 7? I'm sorry, I'm
25 getting different references. I'm not sure whether

1 I'm looking at the right document or not.

2 Q. The chart.

3 A. Okay. I don't know if this is Sierra
4 Club 7 or not. Can somebody help me understand?

5 EXAMINER SEE: Let's go off the record
6 for a minute.

7 (Discussion off the record.)

8 EXAMINER SEE: Let's go back on the
9 record.

10 Q. (By Mr. Mendoza) Then I am going back,
11 without referring to any numbers specifically, the
12 costs reflected on Attachment 1 to Sierra Club 7 were
13 the environmental compliance capital costs that you
14 provided to Mr. Pearce, correct?

15 A. That is correct.

16 Q. And those were the costs that Mr. Pearce
17 incorporated into his forecast, right?

18 A. This -- what you see here on this table
19 per the data request was a subset or an extraction of
20 the total amount of data that Dr. Pearce used in his
21 analysis. These are the environmental projects which
22 is what was requested here.

23 Q. Okay. And there's no -- you provided,
24 aside from the information in that document, again
25 which we don't want to refer to the numbers, but

1 aside from the information in Attachment 1 to Sierra
2 Club 7, you provided no other environmental
3 compliance capital costs to Mr. Pearce, right?

4 A. Well, these are the major environmental
5 projects that are on this list, which is what was
6 requested. When there is other information that I
7 think that was supplied in the other referenced 89,
8 Sierra Club INT-2-089 which was the complete set of
9 information that had capital and O&M and so forth.
10 There are buckets, what we call -- we call them power
11 plant blankets which is basically sort of a catchall
12 for small projects.

13 Some projects in there could be related
14 to environmental compliance, whether it's with
15 existing rules or with small new rules, because we
16 don't know exactly what projects are going to be done
17 every year, at small scale, so we have what we call a
18 blanket that helps us cover those type of projects.
19 So when you say "all environmental," these are major
20 environmental projects. But the other attachment had
21 basically our entire forecast which would be the, I
22 would say the catchall that has small stuff, whether
23 it be for existing compliance or for small new
24 compliance projects.

25 Q. And just to be clear, Sierra Club 7 has

1 another attachment which you don't have in front of
2 you which refers to OVEC data. You're not referring
3 to that attachment as the one that has this bucket of
4 information, right?

5 A. No. I believe what this table that we're
6 looking at is simply a subset of the entirety of the
7 data that I provided to Dr. Pearce based on the
8 request was what are the environmental-related
9 projects. We took our best estimate to pull the
10 major environmental projects that we thought were
11 responsive to the request into this sheet. But this
12 is a subset of the total capital and O&M and other
13 costs that I provided to Dr. Pearce for the analysis.

14 MR. PRITCHARD: Could I have that answer
15 reread, just the last part of the answer.

16 (Record read.)

17 Q. And referring to the numbers in
18 Attachment A-1 to Sierra Club 7 but not -- I don't
19 want you to, you know, say any of them, you don't
20 know whether as a witness in this proceeding you can
21 testify to the accuracy to those numbers, right?

22 A. Well, I'm probably the best witness to
23 testify. I mean, these were created as part of our
24 normal business planning process that we use within
25 AEP's organization for our entire generation

1 business. They're developed based on, again, the
2 analysis from Mr. McManus's group with input from our
3 engineering organization and the projects
4 organization and they have industry standard
5 processes that they go through to be able to develop
6 projects like this, and even other projects, and we
7 pull all those together for our entire forecast.
8 And, again, it's the same process we use across all
9 of generation in American Electric Power.

10 So based on my experience and based on
11 the experience of the individuals that do the
12 detailed work here, I think it's a reasonable
13 forecast and I think it's based on a reasonable
14 premise based on how we run our entire business.

15 MR. MENDOZA: Your Honors, can we go off
16 the record again?

17 EXAMINER SEE: Yes.

18 (Discussion off the record.)

19 EXAMINER SEE: Let's go back on the
20 record.

21 MR. MENDOZA: Your Honor, may we
22 approach?

23 EXAMINER SEE: Yes.

24 Q. Mr. Thomas --

25 MR. NOURSE: Hang on a second. Can we go

1 off the record? Can we go off the record, I'm sorry?

2 EXAMINER SEE: Let's go off.

3 (Discussion off the record.)

4 EXAMINER SEE: Let's go back on the
5 record.

6 Q. (By Mr. Mendoza) Mr. Thomas, do you
7 recall being deposed in this proceeding?

8 A. I do.

9 Q. Okay. And I've got -- we've handed you a
10 copy of the confidential pages of your deposition
11 transcript, but I won't ask you any questions that
12 relate to confidential information. I'd like to
13 direct your attention to page 119.

14 A. Okay.

15 Q. And then specifically lines 6 through 10,
16 and let me just read that, it says "Do you know
17 whether there's any witness that AEP has offered who
18 could be qualified to testify as to the accuracy of
19 these numbers or how they were calculated?" And you
20 answered: "I don't know."

21 Did I read that correctly, Mr. Thomas?

22 A. Yeah, you did.

23 Q. Okay. And so I'm wondering, when I asked
24 you whether there was a witness who could testify a
25 few minutes ago whether there was a witness who could

1 testify as to the accuracy of these figures, I'm
2 wondering why your answer today differed from that.

3 A. I just meant I was the most appropriate
4 witness that I know of in this case.

5 Q. But you can't testify to the accuracy of
6 these numbers, right?

7 A. Not to each specific project. All I'm
8 talking about is the process that American Electric
9 Power uses to develop these type of numbers and we do
10 it based on industry standards and we do it for our
11 entire business and we've done it for an extended
12 period of time. So the process and the rigor we go
13 through as an organization is what I'm attesting to,
14 not to the specifics of each one of these.

15 Q. Okay. But if we looked at a specific
16 project and a specific estimate of what the costs
17 would be, you couldn't specifically testify to how
18 that specific number was developed and the various
19 steps through which it was developed and, therefore,
20 testify about the accuracy of it, right?

21 A. That is correct.

22 Q. And still looking at Confidential
23 Attachment 1 to Sierra Club 7, and again without
24 referring to any numbers, there are no capital
25 investment projects that are driven by the Clean

1 Power Plan, right?

2 A. I'll take a minute to review this,
3 please.

4 EXAMINER SEE: Take your time.

5 A. No, I don't see any projects related to
6 the Clean Power Plan --

7 Q. Thank you.

8 A. -- on this referenced attachment.

9 Q. Are you done with your answer?

10 A. Yes.

11 Q. I apologize for interrupting you.

12 And still looking at Attachment 1 there
13 you didn't -- other than the projects you identified
14 there, you didn't identify any other major capital
15 investment projects for environmental compliance that
16 you provided to Mr. Pearce, right?

17 A. That is correct.

18 Q. Okay. And for that purpose how would you
19 define "major"?

20 A. I don't have a specific definition.
21 Generally it's something inside our organization that
22 either takes a long time to implement or has
23 significant capital dollars. I don't have a specific
24 definition for you, just something that's really
25 difficult to do generally or spend a lot of money

1 doing.

2 Q. Okay. Thank you. We can move on.

3 Let's look at page 8 of your written
4 testimony. In case there's any confusion,
5 Mr. Thomas, I'm only going to ask you about your May
6 testimony. I'm not going to ask you any questions
7 about your October testimony.

8 A. Okay, I'm at page 8.

9 Q. Would you please read for me the sentence
10 that starts on line 4 that begins with the words "For
11 those affiliated."

12 A. The first sentence?

13 Q. Yes. No, I'm sorry, the sentence on page
14 8 that begins on line 4.

15 A. I guess just one sentence, that's what
16 I'm asking, just that one?

17 Q. Yes, please.

18 A. "For those Affiliated PPA Units that are
19 equipped with cooling towers (Conesville 4-6, Stuart
20 Unit 4, and Zimmer Unit 1) there may be a need to
21 modify intake screens as a result of 316(b), but
22 whether or not those screens are required will not be
23 certain until studies described by Witness McManus
24 are complete."

25 Q. And then looking back at Attachment 1 to

1 Sierra Club 7, there are projects for Zimmer related
2 to 316(b) compliance, right? Excuse me, let me
3 withdraw that question since it's the opposite of
4 what I wanted to ask.

5 There are no compliance projects listed
6 for 316(b) for Zimmer, right?

7 A. No.

8 Q. And there are no compliance projects
9 listed for 316(b) for any of the Conesville units,
10 right?

11 A. No.

12 Q. And then let's stay on that page. Would
13 you mind reading the next sentence which begins on
14 line 7 that starts with "Additional investment may be
15 needed."

16 A. "Additional investment may be needed as
17 Stuart Units 1-3, which are not equipped with cooling
18 towers, although early indications are that the units
19 will likely not need to install cooling towers to
20 comply with the rule."

21 Q. And, thank you, Mr. Thomas.

22 And you relied on Mr. McManus for this
23 conclusion that cooling towers are not likely to be
24 required at Stuart 1 through 3, right?

25 A. That is correct.

1 Q. And the budgetary estimates document we
2 looked at before, Attachment 1 to Sierra Club 7, does
3 not include costs for cooling towers for Stuart 1
4 through 3, right?

5 A. Yes, that's correct.

6 Q. Okay. And you have not done any analysis
7 of whether AEP Generation would need to purchase
8 emissions allowances to comply with the Cross-State
9 Air Pollution Rule, right?

10 A. No, I have not done any analysis. My
11 experience, generally we will take whatever the
12 estimated cost of allowance is and that will be added
13 to the variable cost of the unit as the model would
14 dispatch it. So the equivalent cost or impact of an
15 allowance would generally be included in that way,
16 but, no, I did not do a study.

17 Q. Or an estimate.

18 A. Or an estimate, no.

19 Q. Okay. And so just to be clear, you
20 didn't include an estimate of CASPR allowances costs
21 in the budgetary projections that you provided
22 Mr. Pearce, right?

23 A. No, I did not. But in the budget
24 estimates the way we do them here, they would be
25 added to the dispatch price as a variable cost. So

1 we would not produce that on our side because it
2 would vary based on how the units would dispatch and
3 if the allowances were needed at all.

4 Q. And considering the budgetary estimates
5 that we've been discussing, you haven't determined
6 which of the environmental projects you would
7 recommend that AEP go forward with if the PPA were
8 denied by the Commission, right?

9 A. That is correct with the exception of the
10 Conesville 5 and 6 GORE retrofit for MATS compliance.
11 We are moving forward with that project. It's
12 already completed on Conesville unit 6 and will be
13 completed in the spring of 2016 on Conesville 5. So
14 we have made commitments to complete that project.

15 Q. Do you know when those units will be
16 compliant with MATS?

17 A. It will be on or before April 16th of
18 next year because that was our -- the Ohio EPA, given
19 that we were going through a compliance project for
20 those units, they gave us the one-year extension that
21 was allowed by the United States EPA and so that --
22 it was one year past the original MATS date which was
23 I believe 4/15 of 2015, so it will be before April
24 15th of 2016.

25 Q. Okay. Thank you. And aside from that

1 GORE and the MATS project that we were just
2 discussing, you don't know whether any of those other
3 projects on that document would go forward or not if
4 the PPA rider is denied, right?

5 A. Could I have a moment to review them and
6 see?

7 Q. Yes. Please.

8 A. Some of these are near-term projects so I
9 need to look and see.

10 Again, this table -- this attachment that
11 we're referencing has various projects. There are
12 others that I anticipate we would go forward with,
13 but we've already talked about the GORE retrofit.
14 There's another one for Conesville recycle tank
15 replacement. There's a couple for SCR catalyst
16 replacements. As we go down through the lists, those
17 we would generally go forward and do in those given
18 years. But those are the -- those are the only ones
19 I can think of right now.

20 Q. Okay. So for those projects that you
21 just described, so AEP Generation will go forward
22 with those projects even if the PPA rider were denied
23 by the Commission, right?

24 A. Well, they're relatively minor projects,
25 but, for example, the SCR catalyst generally has a

1 finite life so if we want to continue to be, you
2 know, in compliance with our permits, then we'd have
3 to replace the catalyst. Those are the kinds of
4 things I'm talking about. But they're not
5 significant, what I call major projects. So we have
6 not made a decision on these major projects that are
7 on here, just the smaller projects.

8 Q. Okay.

9 A. Even those are subject to change
10 depending on market conditions and, you know, the
11 amount of revenue we have to run the business.

12 Q. And nobody within AEP has told you that
13 any of the affiliated PPA units would be retired if
14 the Commission rejects the affiliate PPA, right?

15 A. Nobody's told me that, no.

16 Q. And you haven't discussed retirement of
17 any of the co-owned units with any co-owners,
18 correct?

19 A. I have not.

20 Q. And you don't know if any of the
21 co-owners have plans to retire any of the co-owned
22 units, right?

23 A. Not to my knowledge.

24 Q. And AEP could not retire any of those
25 co-owned units unilaterally, right?

1 A. With respect to the Stuart units, Zimmer,
2 and Conesville 4, that is a correct statement because
3 it's a unanimous vote to retire a co-owned unit like
4 that within that ownership arrangement.

5 Q. Okay. I'm switching gears a little bit.
6 In your work on this proceeding or otherwise have you
7 heard of PJM's capacity performance product?

8 A. I've heard about it a little bit as part
9 of this work, but obviously I have heard about it
10 being a market participant in PJM, yes.

11 Q. And you haven't evaluated whether capital
12 investments would be required at any PPA unit to
13 avoid penalties under PJM's capacity performance
14 rules, right?

15 A. Well, we have taken a look based on what
16 we believe the requirements are relative to
17 reliability and based on the high level review that
18 my team and I have done. We don't anticipate any
19 significant reliability based projects that are
20 needed that are outside of the scope of our normal
21 operation and maintenance processes.

22 MR. MENDOZA: Your Honor, may we
23 approach?

24 EXAMINER SEE: Yes.

25 MR. MENDOZA: I'd like a document to be

1 marked Sierra Club 16, please.

2 I'd like to identify this document as
3 interrogatory response 6-138. It's a Sierra Club --
4 it's a response to a Sierra Club interrogatory.

5 EXAMINER SEE: The exhibit is so marked.

6 (EXHIBIT MARKED FOR IDENTIFICATION.)

7 Q. (By Mr. Mendoza) Mr. Thomas, have you
8 seen this document before?

9 A. I have.

10 Q. And this document was -- this
11 interrogatory response was prepared by you and
12 Dr. Pearce, right?

13 A. Yeah, that's correct.

14 Q. And do you see where it says at the top
15 "State whether the Company, AEPSC, AEPGR, or AEP has
16 evaluated whether additional capital expenditures
17 would be needed at any of the PPA Units to avoid
18 penalties under the capacity performance construct"?

19 A. I see that, yeah.

20 Q. Okay. Would you mind reading for me the
21 response under a. there?

22 A. "At this time, the Company has not
23 evaluated and projected the cost, if any, of
24 additional capital investment above the level
25 included in this filing which could potentially

1 result in reducing any PJM reliability charges under
2 the capacity performance construct. Such evaluations
3 will be an ongoing process."

4 Q. Okay. Thank you very much.

5 A. But from my perspective, when I read this
6 interrogatory and my interpretation is have we done a
7 detailed analysis? No. But have we looked at
8 basically how we do our business and what reliability
9 based items are out there that would need significant
10 additional capital investment, I'm just saying our
11 cursory review I don't expect any significant changes
12 there. But we have not done a detailed White Paper
13 study; that was my interpretation of this question.

14 Q. Okay. And you never provided Dr. Pearce
15 estimates of capital investments that may be needed
16 at any PPA unit to avoid penalties under PJM's
17 capacity performance rules, right?

18 A. No, I did not. I don't believe they're
19 going to be needed.

20 MR. MENDOZA: Your Honor, may we
21 approach?

22 EXAMINER SEE: Yes.

23 MR. MENDOZA: I'd ask that this document
24 be marked as Sierra Club 17. It's an interrogatory
25 response to a Sierra Club interrogatory -- it's No.

1 6-146.

2 EXAMINER SEE: The exhibit is so marked.

3 (EXHIBIT MARKED FOR IDENTIFICATION.)

4 Q. Mr. Thomas, have you seen this document
5 before?

6 A. Yes, I have.

7 Q. And you are the person who prepared this
8 data response, right?

9 A. It was prepared at my direction.

10 Q. Okay. And would you agree with me that
11 79.3 percent of AEP Generation's generation fleet in
12 Ohio is coal-fired?

13 A. That sounds right, yes.

14 Q. And it's also what's stated on this
15 document, right?

16 A. Yes, it is what's stated on this
17 document.

18 Q. And would you agree with me that
19 100 percent of the generation included in the PPA
20 proposal is coal-fired?

21 A. Yes, I would agree.

22 MR. MENDOZA: Your Honors, I have no
23 further questions. I don't anticipate having any
24 confidential questions.

25 EXAMINER SEE: Thank you.

1 Ms. Bojko.

2 MS. BOJKO: Thank you, your Honor.

3 - - -

4 CROSS-EXAMINATION

5 By Ms. Bojko:

6 Q. Good afternoon, Mr. Thomas. Just a few
7 follow-up questions.

8 A. Good afternoon.

9 Q. On page 5 of your testimony you discuss
10 the operation of the generating units part of the
11 PPA. Do you see that?

12 A. What line are you referencing, please?

13 Q. I'm just talking generally, I'm just
14 taking you to a page that you say "Please describe
15 your role with regard to the operation of, and
16 investment of the aforementioned generating units."
17 In this section you're talking about the PPA units;
18 is that correct?

19 A. Yes, that's correct.

20 Q. Okay. And you talked a little bit about
21 ownership and operation status with Sierra Club, but
22 I wanted to ask a little more detail. AEP Generation
23 owns Cardinal unit 1 a hundred percent; is that
24 correct?

25 A. That is correct.

1 Q. And as I understand Cardinal unit 1, as
2 described by your colleagues, is operated by the
3 Cardinal Operating Company; is that correct?

4 A. Within the -- Cardinal Operating Company
5 was formed to run Cardinal plant. AEP Generation
6 Resources is a signatory to that agreement now, and
7 Cardinal Operating Company has assigned the
8 operations responsibility of the Cardinal plant to
9 AEP Generation Resources. So, yes, Cardinal
10 Operating Company is responsible for the operation,
11 they have just, I'm not sure the right word, they
12 have delegated that to AEP Generation Resources just
13 how -- it's similar to what happened or how it was
14 used when Ohio Power was the counterparty, Ohio Power
15 was the operator on behalf of Cardinal Operating
16 Company and as part of corporate separation AEP
17 Generation Resources became the signatory to the
18 Cardinal Operating Company agreement and then
19 Cardinal Operating Company also delegated the
20 operations responsibility to the AEP Generation
21 Resources.

22 Q. And AEP Generation owns Conesville unit
23 4 43-1/2 percent and operates Conesville unit 4; is
24 that correct?

25 A. I'm just double-checking the percentage.

1 Yes. We own 43-1/2 percent of Conesville
2 unit 4.

3 Q. And AEP Generation operates Conesville
4 unit 4.

5 A. That is correct.

6 Q. And AEP Generation owns Conesville units
7 5 and 6 a hundred percent and, therefore, operates
8 them; is that correct?

9 A. That's correct.

10 Q. AEP Generation owns 26 percent of the
11 four Stuart units and does not operate them; is that
12 correct?

13 A. That's correct. Stuart is operated by
14 Dayton Power and Light.

15 Q. And AEP Generation owns 25.4 percent of
16 Zimmer and does not operate it; is that -- Zimmer 1;
17 is that correct?

18 A. That's correct. It's operated by Dynegy
19 now and formerly Duke Energy.

20 Q. And AEP Generation does not own or
21 operate any of the OVEC units; is that accurate?

22 A. Yeah, we have no attachment to the OVEC
23 units at all.

24 Q. Let's turn to -- on page 11, line 7 of
25 your testimony you state that "The Affiliated PPA

1210

1 units are on the economic 'bubble.'" Do you see
2 that?

3 A. Yes, I do see that, on line 7.

4 Q. And on page 12 of your testimony, line
5 13, you say that these units are marginal with
6 respect to market-based revenue. Do you see that?

7 A. Yes.

8 Q. Do you have a copy of OCC Exhibit 6 in
9 front of you?

10 A. I do not.

11 MR. NOURSE: What is it?

12 MS. BOJKO: I assumed you left a copy of
13 the exhibits up there. OCC Exhibit 6 is the June
14 2015 Investor Meetings.

15 MR. NOURSE: I've got a copy, but I'd
16 like to look at it while he is. Does someone else
17 have a copy?

18 MS. BOJKO: Thank you.

19 THE WITNESS: Thank you, your Honor.

20 MS. BOJKO: Thank you.

21 Q. (By Ms. Bojko) Do you have a copy of
22 what's been previously marked as OCC Exhibit 6 which
23 is entitled June 2015 investor meetings?

24 A. I do, just to clarify this is a publicly
25 available document from AEP, just --

1 MR. NOURSE: Yes.

2 THE WITNESS: Okay. Just checking.

3 Q. I hope so since we're talking about it in
4 the public session.

5 A. I'm just asking. The FERC code of
6 conduct keeps us very tight on what we see and don't
7 see.

8 Q. Could you turn to page 28 of that
9 presentation, please. And page 28 is entitled "AEP
10 Generation Resources Expected Generation"; is that
11 correct?

12 A. That is the title of page 28, yes.

13 Q. And you're the AEP Generation Resources
14 employee submitting testimony in this proceeding?

15 A. I am.

16 Q. And have you seen this chart before with
17 the AEP Generation 2015 dispatch stack?

18 A. I think I've seen this specific one. I
19 know I've seen versions of it, but I've probably seen
20 this specific one.

21 Q. Okay. And at the bottom under "AEP
22 Generation Resources Expected Generation," do you see
23 that it says "Fleet is well positioned from a cost
24 and operational perspective to participate in the
25 competitive market"?

1 A. I see that at the bottom of the page,
2 yes.

3 Q. And you would expect that for this
4 investor meeting presentation that AEP Service Corp.
5 would have obtained this information, the chart and
6 graph in this slide, from AEP Generation; is that a
7 fair assumption?

8 A. I believe that's a fair assumption, yes.

9 MS. BOJKO: Thank you. I'm done with
10 that.

11 I have no further questions, your Honor.
12 Thank you.

13 EXAMINER SEE: Thank you.

14 MS. BOJKO: Thank you, Mr. Thomas.

15 THE WITNESS: Thank you.

16 EXAMINER SEE: Mr. Stinson.

17 MR. STINSON: Thank you, your Honor.

18 - - -

19 CROSS-EXAMINATION

20 By Mr. Stinson:

21 Q. Mr. Thomas, I'm Dane Stinson. I'm
22 representing the Office of the Ohio Consumers'
23 Counsel today. I just have a few questions myself,
24 more as a follow-up.

25 You indicated in prior -- first of all,

1 let me just get on the record that the owners of the
2 jointly-owned units you've identified are DP&L and
3 Dynegy, correct, as well as AEPGR?

4 A. For the Stuart plant, the Zimmer plant,
5 and Conesville unit 4, yes, that's correct.

6 Q. And what about -- you stated Zimmer?

7 A. I believe I stated Zimmer.

8 Q. Okay. I'm having a hard time --

9 A. Stuart, Zimmer, and Conesville unit 4,
10 yes, that is correct.

11 Q. Thank you.

12 Are the decisions to make capital
13 investments for those co-owned units, are those made
14 by majority vote?

15 A. At a certain level of capital investment
16 they are. Well, I'm sorry. Let me think about this.
17 It's one of those where depending on the category
18 it's different voting.

19 We have a couple of approaches, one is
20 we -- each operator pulls together an operating plan
21 for their unit, the unit they operate and then we
22 exchange those plans with the co-owners at certain
23 times of the year for the following year and there
24 are thresholds, there's an overall approval of the
25 operating plan for the following year and then

1 there's thresholds that if certain investments go
2 over or under a certain amount, then there have to be
3 additional approvals or changes to that operating
4 plan. So there's just a lot of -- there's a lot of
5 scenarios I guess related to how things get done in
6 that relationship.

7 Q. I'm just trying to see with respect to
8 one of those co-owned plants if one of the owners
9 opposed any of the capital investments whether the
10 capital investment would be made, or two of the
11 owners opposed, would those capital investments still
12 be made?

13 A. I don't remember the specifics of the
14 agreement, but my recollection is for those larger
15 capital projects it's majority vote and then, again,
16 there's some others that are unanimous vote. I just
17 don't remember all the details of each scenario.

18 Q. Is the same thing true with O&M expenses,
19 that AEPGR or any of the single owners, any one of
20 the owners would not have a unilateral authority to
21 approve those expenses?

22 A. Again, not having looked at the detailed
23 agreements in a while, I believe that for those
24 operating expenses it would be majority vote is my
25 recollection.

1 Q. Thank you. And I believe in response to
2 either Mr. Mendoza's or Ms. Bojko's questions you
3 indicated that decisions to retire any unit would
4 require a unanimous vote. You listed some of the
5 units. I just wanted to ask you if that is the same
6 for Zimmer.

7 A. Well, I believe so. Zimmer is managed
8 under the same ownership arrangement, so --

9 Q. I just asked because I couldn't hear and
10 it wasn't clear to me.

11 A. Oh. I believe that is true, yes.

12 Q. Thank you.

13 A. There may be --

14 MS. BOJKO: Excuse me. It is difficult
15 to hear over here.

16 EXAMINER SEE: Would it help if we closed
17 the door?

18 MS. BOJKO: It's the air unit, it's not
19 the door.

20 THE WITNESS: I'm sorry, I'll try to
21 speak up. I'm sorry.

22 Q. (By Mr. Stinson) Now, AEPGR would have --
23 does have unilateral authority over the capital
24 investments and O&M expenses for Cardinal 1, correct?

25 A. That is correct.

1 Q. And it can retire that unit unilaterally,
2 correct?

3 A. That is correct.

4 Q. But it doesn't have that same authority
5 with respect to the Cardinal units 2 and 3, correct?

6 A. That is correct, because Cardinal units 2
7 and 3 are wholly owned by Buckeye Power, so they make
8 decisions relative to those units.

9 Q. Thank you.

10 We've had quite a bit of discussion today
11 about the figures and data you provided to Mr. Pearce
12 for his forecast. I just wanted to ask if you
13 prepared those figures you presented to Mr. Pearce as
14 a part of your ordinary duties or did you prepare
15 those specifically for this proceeding?

16 A. These -- this forecast was basically
17 pulled out of our budgeting system so it's part of
18 our normal business operations. Nothing was done
19 related to this specifically for part of this
20 proceeding.

21 Q. So the information provided on Sierra
22 Club Exhibit 7, Attachment 1, had already been
23 prepared as a part of your normal forecasting
24 proceedings?

25 A. To the best of my knowledge, yes.

1 Q. Are you the one that prepared or compiled
2 Attachment 1 to Exhibit 7?

3 A. Well, it was done under my direction. As
4 I discussed before, this is a subset of the total
5 data that I provided Dr. Pearce for the evaluation
6 because this was an attempt to summarize the major
7 environmental-related capital projects. So this
8 specific sheet exists only here because it's a --
9 it's trying to summarize it for this hearing. But,
10 no, it was only created -- it's only taking different
11 numbers and putting them in a different form -- or
12 the same numbers, I'm sorry, putting them in a
13 different form to try to bring clarity.

14 Q. I'm not asking so much about the form,
15 just the numbers, whether those numbers presented on
16 Attachment 1 were already prepared as a part of your
17 ordinary budgeting forecasts.

18 A. Yes, they were.

19 Q. In your testimony you also talk about
20 currently your -- or the company's short-term view of
21 investments, correct?

22 A. Can you point me to a specific reference,
23 please?

24 MR. STINSON: Can we go off the record a
25 second, your Honor, while I find that.

1 EXAMINER SEE: Sure.

2 (Off the record.)

3 EXAMINER SEE: Let's go back on the
4 record.

5 Q. (By Mr. Stinson) I'd draw your attention
6 to page 9, lines 18 to 20.

7 A. Okay. I'm there.

8 Q. Could you read that for me, please, that
9 sentence.

10 A. Starting with "Therefore"?

11 Q. Yes.

12 A. Okay. Page 9, line 18, "Therefore,
13 investments in these units are generally made based
14 on a short-term view of what the market will support
15 over the next few years."

16 Q. And by "the next few years" do you mean
17 three years?

18 A. Yes.

19 Q. Are investments that are to be amortized
20 beyond the three-year period deferred because of that
21 short-term view?

22 A. I'm sorry, can you repeat that question?
23 I'm not sure I understand it.

24 Q. Let me just rephrase it. You stated that
25 you take a short-term view for investments over a

1 three-year period. I'm just asking if investment
2 would be amortized over longer than a three-year
3 period, whether that investment would be made or
4 would it be deferred?

5 A. There are various circumstances. I guess
6 it's a -- we do an analysis on each specific scenario
7 and each specific project to decide whether or not we
8 would move or not. The intent of what I'm saying
9 here is in our perspective we don't look at too much
10 beyond that three-year window.

11 Q. Have investments, to your knowledge, been
12 deferred because they would be amortized over a
13 greater than three-year period?

14 A. To my knowledge, not to date.

15 MR. STINSON: Can we go off the record
16 briefly, your Honor?

17 EXAMINER SEE: Sure.

18 (Off the record.)

19 EXAMINER SEE: Let's go back on the
20 record.

21 Q. (By Mr. Stinson) Do you have your
22 deposition with you, Mr. Thomas?

23 A. I do not have a copy of my deposition,
24 I'm sorry. I guess I have the confidential version
25 or part.

1 Q. But you don't have the public version.

2 A. I do not have the public version, no.

3 I'm sorry.

4 MR. STINSON: Yeah, if he can approach,
5 your Honor.

6 EXAMINER SEE: Sure.

7 Q. And do you remember being deposed,
8 Mr. Thomas, on September 15th of this year?

9 A. I do.

10 Q. And I'd like to draw your attention to
11 page 97 of your public deposition, line 24.

12 A. Page 97, line 24?

13 Q. Yes, over to page 98, line 7.

14 A. Okay. I'm there.

15 Q. And there beginning with page 97, line
16 24, there's a question: "Okay. But at this point,
17 is it fair to say that when you're -- when you're
18 looking out, you wouldn't rule out an investment that
19 may have an amortization period longer than three
20 years just because you only have the three years of
21 capacity revenue pricing?

22 "Answer: I would say it's fair to say
23 that not every project would get ruled out on that
24 basis.

25 "Question: Okay.

1 "Answer: But based on my experience,
2 many would."

3 Did I read that correctly?

4 A. Yes, I believe you did.

5 Q. Thank you.

6 On page 7, line 14 of your testimony you
7 talk about the MATS investment and you state that --

8 A. I'm sorry, page 7 of what I have, it was
9 the introduction.

10 Q. To your testimony?

11 A. Yeah. This says "Good morning,
12 Mr. Thomas." "Good morning."

13 Q. Page 7 to your testimony, not your
14 deposition.

15 A. Oh, I'm sorry. I'm still on the -- my
16 apologies.

17 Q. It's a long day.

18 A. Wrong document.

19 Q. That's okay.

20 A. Yes, sir.

21 Q. All righty. Beginning at page 12 you
22 state "Those Affiliated PPA units that are already
23 equipped with ESP, SCR and FGD systems (Cardinal Unit
24 1, Conesville Unit 4, Stuart Units 1-4, and Zimmer
25 Unit 1) are anticipated to meet requirements of the

1 MATS Rule without additional significant capital
2 investment." Is that correct?

3 A. Yes, that's correct. That's on page 7,
4 lines 12 through 15 of my testimony.

5 Q. And you did not include any additional
6 capital investment for the MATS compliance in
7 Attachment 1 to Exhibit 7, Sierra Club Exhibit 7.

8 A. No, I did not. All these units are now
9 in MATS compliance, and they did not require any
10 additional capital investment other than monitoring
11 equipment, which is minimal.

12 Q. Was that included in Attachment 1?

13 A. Well, again, Attachment 1 that you're
14 referencing is major capital projects. Once that --
15 those monitors are already installed and any costs
16 related to maintaining those monitors are in the
17 forecast that I've provided Mr. Pearce, but they
18 would then be on the O&M side, not the capital side.

19 Q. Page 8, lines 4 through 7 you talk about
20 the potential for intake screens.

21 A. I'm sorry, what page are you on?

22 Q. Page 8, lines 4 through 7.

23 A. Yes, that's correct.

24 Q. Have you discussed with the co-owners of
25 the co-owned plants whether those intake screens will

1 be required?

2 A. I have not had specific discussions with
3 Dayton Power and Light, for Stuart, or Dynegy for
4 Zimmer, no.

5 Q. So there's been no decision as to whether
6 to install those?

7 A. Not until the studies are completed.

8 Q. And they're not completed yet?

9 A. Not to my knowledge. I think they're in
10 process right now.

11 Q. And the same with respect to the cooling
12 towers in the next sentence, have you had any
13 discussions with the joint owners of the
14 jointly-owned plants regarding installing cooling
15 towers at those units?

16 A. I don't remember specific discussions. I
17 do know the need for these over time has been
18 discussed in our engineering and operating committee
19 meetings that we have between the joint owners, and I
20 don't recall any conversations where any owner
21 believed that a cooling tower is going to be needed,
22 but I'm just going off memory.

23 Q. So there were no discussions or you don't
24 recall any discussions?

25 A. I don't recall any discussions.

1 Q. Has any decision been made to install
2 cooling towers?

3 A. No decision's been made, no. I don't
4 believe we -- it's not the most likely need based on
5 the evaluation of the 316(b) Rule.

6 Q. Well, is that your opinion or is that the
7 opinion of the committee?

8 A. That's based on feedback from
9 Mr. McManus's group at least relative to -- well,
10 sorry, we're talking about Stuart and Zimmer.

11 Q. My question was it's not based on
12 feedback from the committee, correct?

13 A. Yes.

14 Q. Yes, I am correct?

15 A. Can you repeat the question, please?

16 MR. STINSON: Could you reread it,
17 please.

18 (Record read.)

19 A. Which committee are you referring to just
20 for clarity?

21 Q. I'm talking about to the engineering and
22 operating committee that has oversight for
23 expenditures for those units.

24 A. I don't recall any discussions for
25 cooling towers for Stuart units or the Zimmer --

1 well, Zimmer already has a cooling tower, so...

2 Q. Right. We're talking about Stuart 1
3 through 3, correct?

4 A. Honestly, I'm not sure.

5 Q. Well, I referred you to, just to be
6 clear, page 8, lines 7 through 10.

7 A. Okay. Thank you. Yes, we are talking
8 about Stuart units 1 through 3.

9 Q. And I believe that you indicated that you
10 did not believe the cooling units were required at
11 those facilities based upon Mr. McManus's opinion; is
12 that correct?

13 A. Well, again, Dayton Power and Light would
14 ultimately do the analysis here and bring a potential
15 solution or solutions to the engineering and
16 operating committee. I would lean on myself, and
17 Mr. McManus --

18 Q. I'm really sorry, I can't hear you over
19 here.

20 MR. STINSON: If you could read what he
21 stated already.

22 Q. And then I'd ask if you could speak up a
23 little bit, Mr. Thomas, that would help me.

24 (Record read.)

25 A. -- to check the reasonableness of what

1 they bring to the engineering and operating
2 committee.

3 Q. And DP&L operates the Stuart units?

4 A. Yes, that's correct.

5 Q. And DP&L has not brought a proposal for
6 those cooling towers, correct?

7 A. I guess I don't understand the question
8 relative to a proposal.

9 Q. Well, you indicated that the entity that
10 operates a particular unit would bring a proposal for
11 investments to the committee. And I'm asking if DP&L
12 brought that proposal to the committee for the
13 cooling towers for the Stuart units.

14 A. I don't recall ever seeing any proposal
15 from DP&L for needing cooling towers for Stuarts 1
16 through 3.

17 Q. Do you know when a determination will be
18 made on whether those cooling towers should be
19 installed?

20 A. I don't know specifically. I would have
21 to take that question to Dayton Power and Light. But
22 I will say given they have not included it in the
23 budget exchanges and the forecasts that we exchange
24 as co-owners, that would lead me to believe, based on
25 my history with Dayton Power and Light, that they

1 wouldn't expect it to be needed or they would be
2 forecasting.

3 Q. And how long do the committee's forecasts
4 go out?

5 A. I think generally we exchange a five-year
6 forecast.

7 Q. When was the last forecast exchanged?

8 A. The very last forecast generally, if I
9 remember, it would have been -- I think we do it in
10 October of each year, so it probably would have been
11 October of 2014, and we'd be due to get another
12 budget exchange relatively soon as part of our
13 operating agreement.

14 Q. Page 7, line 11, you talk about ELG, and
15 also on page 8, line 11. I understand that you've
16 included budgeted amounts for ELG in the information
17 you provided to Mr. Pearce, correct?

18 A. Yes, that is correct.

19 Q. Is that budgeting information final yet?
20 Let me rephrase, you indicate that the final
21 requirements for the rule will not be known until
22 September. Will the budgeted information, will the
23 budget amount be revised based upon those final
24 requirements?

25 A. It's possible that they could be. My

1 understanding is we got the final rule yesterday. As
2 I looked via -- as Mr. McManus was talking at a very
3 high level summary of the 300-page rule that came out
4 from the EPA and it appears by my cursory review that
5 the projects that we've outlined in here appear that
6 they are in line with what -- the rule that just came
7 out. But, again, that's based off of information I
8 looked at last night.

9 Q. When will you make your final
10 determination?

11 A. I'm not sure when we'll make the final
12 determination. It will be a matter of after our
13 environmental counsel and Mr. McManus's group goes
14 through the entire document to make sure that we
15 fully understand the requirements. I'm not sure how
16 long that process is going to take.

17 Q. Page 9, line 11 -- beginning at line 9
18 actually where you state "These units are capable of
19 safely and reliably generating electricity, and can
20 be economically viable in a deregulated market if the
21 market price of electricity reaches sufficient
22 levels." Do you see that?

23 A. Yes, I do see that in my testimony on
24 page 9.

25 Q. And what do you mean by "sufficient

1 levels"?

2 A. What I meant in this particular view
3 here, sufficient levels is where I can recover my
4 prudent costs and get a reasonable return on my
5 investment.

6 Q. But you don't have any figure in mind as
7 to what the market price would be?

8 A. No, because the market price is comprised
9 of capacity and energy payments and ancillary service
10 payments so there's several pieces that go into the
11 revenue stream associated with a given unit.

12 Q. On page 12, lines 1 through 4, in there
13 you indicate that if the PPA were approved, it would
14 lend to a different investment strategy. Is that a
15 correct paraphrasing of your testimony?

16 A. Yes, I would agree with that.

17 Q. And on line 8 you talk about long-term
18 and significant investment. Is that what you mean by
19 the different investment strategy?

20 A. I'm sorry. I'm not sure I understand the
21 question.

22 Q. Well, I just asked in the preceding
23 paragraph that we agreed that if the PPA were
24 approved, you believe it would lead to a different
25 investment strategy for the units AEPGR, and I'm

1 referencing on line 8, that a different investment
2 strategy would not be the short-term view but the
3 long-term view which would permit significant
4 investment; is that what you mean by that testimony?

5 A. Yeah. Basically what I mean is if we can
6 take a longer-term view based on -- in this proposed
7 case or proposed PPA and working with AEP Ohio, then
8 yes, we can look at some of the projects over a
9 longer term and potentially make the needed
10 investments to keep the units reliable and compliant
11 on a forward basis.

12 Q. And by "longer term" do you mean five
13 years or more?

14 A. From my perspective I would say it would
15 be much beyond three years.

16 Q. And significant investment, how do you
17 quantify that?

18 A. I think if we go back to the reference
19 table that we talked about in the Sierra Club
20 exhibit, many of those projects are what I would
21 consider to be significant investments especially
22 when you look at them holistically for a given
23 facility or a given unit.

24 MR. STINSON: Could I have that answer
25 reread again? I'm having problems hearing.

1 (Record read.)

2 MR. STINSON: No further questions, your
3 Honor.

4 EXAMINER SEE: Mr. Oliker.

5 - - -

6 CROSS-EXAMINATION

7 By Mr. Oliker:

8 Q. Before we go on, how are you doing,
9 Mr. Thomas?

10 A. I'm fine.

11 Q. Okay. I want to -- my name is
12 Mr. Oliker, Joe Oliker with IGS Energy. Just a few
13 questions.

14 Earlier you had a discussion with counsel
15 for Sierra Club about whether or not there's the
16 potential for the units to be retired. Do you
17 remember that?

18 A. Uh-huh.

19 Q. And am I correct that the chief executive
20 officer of American Electric Power has indicated that
21 if the PPA is not approved, then the options would be
22 to retain the units, put them in another entity, or
23 sell them, right?

24 A. What I know is our executive leadership
25 including Mr. Akins has decided to begin a strategic

1 review of the entire competitive business to look at
2 whether or not it's best for the shareholders of
3 American Electric Power to keep the business, to put
4 the business or spin the business into its own
5 company or spin-merge with another company or divest.

6 Q. Okay. And you personally -- it's not
7 within the scope of your duties to make any
8 recommendations on whether or not you would either
9 retire a unit or sell it.

10 A. No. I would not -- those decisions
11 generally are made by our executives. I may have
12 input into data just like in this case with
13 Mr. Pearce into what things look like but those
14 ultimate decisions would lie with the executives and
15 maybe even the board.

16 Q. Okay. Going back to a discussion you had
17 with Mr. Stinson and -- I guess this is on page 9,
18 line 21 of your testimony, you're talking about
19 market prices and capacity prices being currently
20 low; these are conditions that affect all generation
21 within Ohio and PJM, correct?

22 A. I think that's partially true, but not
23 all the units that are in Ohio or in PJM are
24 independent power producers. Some of them are owned
25 by regulated companies so they have their costs

1 covered by their customers and they sell their power
2 into PJM and then their load-serving entities
3 purchase their power back out of PJM.

4 Q. Okay. But these conditions do apply to
5 all independent power producers, correct?

6 A. Well, again, as you look across PJM,
7 there are different prices across the entire RTO for
8 energy and sometimes capacity based on congestion, so
9 I can't say holistically they apply to every IPP in
10 PJM.

11 Q. But in Ohio let's talk about the
12 unconstrained zone of PJM, you agree these conditions
13 would apply?

14 A. Again, based on my knowledge, a certain
15 section of Ohio, but if you go up into northern Ohio
16 into the ATSI zone, I'm not sure I would agree.

17 Q. So we can both agree that the Commission
18 should reject their PPA, right?

19 (Laughter.)

20 A. I have no opinion.

21 MR. DARR: Wow.

22 MR. OLIKER: I'm sorry. I couldn't
23 resist.

24 Q. And as I understand your conversation
25 with Mr. Stinson, this three-year forward period due

1 to low capacity and energy prices, that causes AEP
2 Generation Resources to invest in its plant
3 differently than it would if the PPA was approved,
4 correct?

5 A. That's correct. I would agree with that.

6 Q. And that's why if we go on to page 11,
7 there's actually a whole Q and A that indicates that
8 the PPA will cause a different investment strategy in
9 these units?

10 A. I believe so, yes.

11 Q. Okay. And the reason for that is because
12 if AEP Generation Resources has to rely solely on
13 market-based revenues, there's no guarantee that a
14 capital investment will be recovered, correct?

15 A. Can you help me understand what your
16 definition of "capital investment being recovered"?

17 Q. Well, if AEP Generation Resources, let's
18 think of it in two ways, if the PPA is rejected, then
19 AEP Generation Resources needs to make decisions
20 based on the market-based revenues that will be
21 available, correct?

22 A. That's correct.

23 Q. And there is the risk that those
24 market-based revenues will not recover the cost of
25 that expenditure as well as a return on that

1 investment, correct?

2 A. That is correct.

3 Q. Okay. And as a result of that, assuming
4 we're in a world without a PPA, in times of low
5 market prices then you have to cut costs, right?

6 A. Yes.

7 Q. Okay. But if the PPA is approved, that
8 provides the advantage of knowing that five years out
9 you're still going to get recovery of that
10 investment, correct?

11 A. Under the proposed PPA construct we would
12 have a return on equity component, yes, and we would
13 get a return on that investment, yes, provided they
14 were prudent.

15 Q. So would you agree that if there are
16 negative market conditions for the next four or five
17 years, the PPA-related units will be better situated
18 to compete in the competitive market than an
19 independent power producer in Ohio within the AEP
20 transmission footprint?

21 A. Well, given what the market conditions
22 are and ultimately assuming, if we assume the
23 proposed PPA is approved, we would take options to
24 AEP Ohio as far as what those investments could be,
25 and AEP Ohio would then make the decision as to

1 whether or not to make the investment or to not make
2 the investment. And we would follow -- we're the
3 owner, we would be on the proposed operating
4 committee and so they would be making those
5 decisions. We'd bring them options and they would
6 make the decision.

7 As far as the PPA structure, my
8 understanding is it's, you know, it's a long-known
9 well-understood FERC-related cost-based agreement and
10 my experience is it's something that's done
11 relatively frequently, at least over time.

12 MR. OLIKER: Could I have my question
13 read back, please.

14 (Record read.)

15 Q. I said PPA-related units, but did you
16 understand that part of my question?

17 A. I guess I don't. I'm sorry.

18 Q. Okay. I think you say in your
19 testimony -- we'll come back to this.

20 If an independent power producer has to
21 cut costs, would you agree that that could impact the
22 performance of a generating unit?

23 A. I would agree it has the possibility. It
24 would depend on where they cut those costs, depending
25 on what equipment or what part of the plants. I

1 guess I'd have to know more details to say
2 specifically.

3 Q. What if they forego capital expenditures?

4 A. Again, can you help me -- what type of
5 capital expenditures you're talking about.

6 Q. How about some boiler maintenance.

7 A. Again, it depends on what part of the
8 boiler you're talking about.

9 Q. There are portions of a boiler and there
10 are tubes that require replacement from time to time,
11 correct?

12 A. They can -- some of it, again, can be
13 replaced or they can be repaired many times at a
14 lower cost so in my experience if we've had to reduce
15 expenses and -- and at times we have over the years,
16 we go in and address the parts of the boiler that are
17 most needed so I guess I can't say the wholesale
18 statement. I think whatever money the independent
19 power producer has they're going to invest in their
20 unit to maintain the best reliability they can afford
21 to.

22 Q. And there is a possibility that an
23 independent power producer will not be able to invest
24 the same amount of money in their power plants as AEP
25 could if the PPA is approved, correct?

1 A. I guess I don't know -- I don't know
2 anything surrounding the potential independent power
3 producer so I don't know the situation. I mean, they
4 could also have other arrangements.

5 Q. What do you mean by "other arrangements"?

6 A. Could have purchased power agreements
7 themselves with other, you know, third parties at
8 arm's length. I can't answer that question because I
9 don't know how to. It's very open.

10 Q. Assume they sell into the LMP market and
11 they're negatively --

12 A. Again, I can't opine on what another
13 independent power producer may or may not do or what
14 investments they may or may not make.

15 Q. Okay. But you can say that if the PPA is
16 not approved and market conditions are negative, as
17 you believe they are now, then these power plants
18 will not be able to receive the same level of
19 investment; is that correct?

20 A. I would say assuming market prices are
21 lower, that's a potential, but I also know we're
22 doing a number of things and have been for several
23 years now to be able to, you know, reduce our costs
24 to operate, reduce our costs to maintain, it's all
25 about employee engagement, getting after the, you

1 know, the biggest issues.

2 So, again, I think if the operators are
3 prudent and if they employ the right practices,
4 they're going to have a reasonable chance to make
5 investments to maintain reliability. Or you may
6 change how the unit operates and reduce capacity
7 factors and only operate in times there are high
8 prices so you can save maintenance money in shoulder
9 months, say spring and fall. There's just so many
10 things a potential operator can do I can't make a
11 blanket statement relative to what investment they
12 could or could not make.

13 Q. These are all things AEP Generation
14 Resources could do if the PPA is not approved, right?

15 A. They're the type of things we would do if
16 it's not approved, yes.

17 Q. I'm going to ask you a question and think
18 if the answer is confidential before you give it, I'm
19 not sure it is. Does AEP Generation Resources enter
20 into asset-backed contracts with end-users?

21 MR. PETRICOFF: I'm sorry, I couldn't
22 hear the question. Could I have the question read
23 back?

24 (Record read.)

25 MR. NOURSE: I'd just object. I don't

1 understand the question. Are you asking whether they
2 have retail contracts?

3 Q. (By Mr. Olikar) Do you understand the
4 question, Mr. Thomas?

5 A. I'm not sure I understand what an
6 asset-backed contract is so --

7 Q. I'll be happy to clarify. Does AEP
8 Generation Resources use retail contracts to hedge
9 its exposure to the LMP market?

10 MR. NOURSE: I just object and caution
11 the witness if you're getting into what their, you
12 know, back-end business strategies are, I presume
13 that's confidential.

14 A. I can tell you we have a retail
15 organization and a wholesale organization, but I'm
16 not intimately familiar with everything that they're
17 doing relative to power sales and whether it's backed
18 by assets or whether it's bought from the market.
19 I'm not that close to it. I'm really on the
20 operations side.

21 Q. Okay. Are you familiar with the fact
22 that an entity can sell their generation into the LMP
23 market and then buy it back in a certain quantity,
24 could be less than the total amount they sell in, and
25 then have a retail contract with somebody else that

1 provides the actual compensation they receive for
2 that amount of energy?

3 A. I'm sorry, you're outside of my range of
4 knowledge and expertise. I don't know.

5 Q. Okay. Do you generally understand the
6 way an entity sells their electricity into PJM? The
7 way any of the accounting works?

8 A. What entity? A load-serving entity? A
9 generator?

10 Q. A generator.

11 A. I'm not familiar with the accounting. I
12 know there's a day-ahead market where each unit,
13 depending on how -- we put in offers, PJM either
14 awards a unit day ahead and provides so much revenue
15 and then in real time you balance against that
16 day-ahead award and PJM will dispatch or move the
17 units up and down based on real-time power prices.
18 But how everything settles behind that, we have an
19 entire group that does that and, no, I am not
20 familiar with it.

21 Q. Are you familiar that sometimes a
22 wholesale generator may use a retail book of business
23 to hedge their exposure to the LMP market?

24 A. Again, I don't -- I don't know. I know
25 we have a retail sales business, and I know we have a

1 wholesale sales side, but how all that works from an
2 accounting perspective, I'm sorry, I don't know.

3 Q. So you would not be able to opine on
4 whether or not -- first, before we go there, you
5 agree that the assets that are proposed to be in the
6 PPA, I think as you described them, are the
7 less-efficient assets within the AEP Generation
8 Resources portfolio of the fleet.

9 A. I just described them as bubble units or
10 marginal relative to the forecasted market revenue.

11 Q. Okay. So if the other units that are
12 still on AEP Generation Resources' portfolio, those
13 resources are -- they're less economic risk, correct?

14 A. Again, my testimony is focusing on the
15 units that are proposed in the PPA. I'm not prepared
16 to talk about the units that are outside the scope of
17 this proposed PPA.

18 Q. So do you have any knowledge of whether
19 or not the PPA, if approved, would change the
20 competitive decisions that AEP Generation Resources
21 makes with respect to its retail book or its
22 wholesale decisions?

23 A. No, I do not. I know in the PPA
24 construct, as Witness Vegas and Witness Pearce talked
25 about, as far as the PPA units themselves, they would

1 go into their own, I think it's a special-purpose
2 entity and then the dispatch of those units would
3 basically be directed and controlled by our Regulated
4 Commercial Operations business.

5 So those decisions, as far as how the
6 units operate in the market day to day, will be
7 completed by our regulated side which does all the
8 other regulated units. So we won't have input into
9 how those units operate in the market assuming this
10 PPA goes through, is approved. We would still have
11 input into what other units we own that aren't a part
12 of it just like we do today.

13 Q. Okay.

14 A. So that wall of separation is designed in
15 the PPA such that the entity that makes the decision
16 for our regulated operating companies as how the
17 units operate in the market would make the same
18 decisions for these proposed PPA units. They would
19 not -- those decisions would not be made by AEP
20 Generation Resources any longer.

21 MR. OLKER: One second, your Honor.

22 Q. Are you familiar with the level of debt
23 that exists in the AEP Generation Resources or is
24 that something more in the wheelhouse of Witness
25 Hawkins?

1 A. Ms. Hawkins would be much better prepared
2 to talk about that.

3 Q. Do you have any understanding of the debt
4 level?

5 A. My only understanding is I thought we
6 were approximately 70 percent equity, 30 percent
7 debt. But that's somewhat dated when we created the
8 company -- we went to corporate separation. So I
9 honestly have no idea if that's where we are today.

10 Q. Do you know the quantity of debt?

11 A. I do not.

12 Q. You don't know any of the maturity dates,
13 do you?

14 A. I have no idea.

15 MR. OLIKER: Okay. Those are all the
16 questions I have, your Honor.

17 Thank you, Mr. Thomas.

18 THE WITNESS: Thank you.

19 EXAMINER SEE: Thank you. Let's go off
20 the record for a second.

21 (Discussion off the record.)

22 EXAMINER SEE: Let's go back on the
23 record for a second.

24 Any cross-examination for this witness,
25 Mr. Yurick?

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1 MR. YURICK: No, your Honor.

2 EXAMINER SEE: Mr. Boehm?

3 MR. K. BOEHM: No, your Honor.

4 EXAMINER SEE: Mr. Austin?

5 MR. AUSTIN: No, your Honor.

6 EXAMINER SEE: Okay. Thank you. We will
7 end for the evening and pick up with IEU in the
8 morning.

9 MR. DARR: Thank you, your Honor.

10 EXAMINER SEE: Promptly at 9 o'clock.

11 MR. NOURSE: Thank you.

12 (Thereupon, at 6:09 p.m., the hearing was
13 adjourned.)

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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 Thursday, October 1,
2015, and carefully compared with my original
stenographic notes.

Maria DiPaolo Jones, Registered
Diplomate Reporter and CRR and
Notary Public in and for the
State of Ohio.

My commission expires June 19, 2016.

Karen Sue Gibson, Registered
Merit Reporter and Notary Public
in and for the State of Ohio.

My commission expires August 14, 2020.

(79417-mdj/kg)

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Case No(s). 14-1693-EL-RDR, 14-1694-EL-AAM

Summary: Transcript In the Matter of the application of Ohio Power Company hearing held on 10/01/15 - Volume IV electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.