

PUBLIC UTILITIES COMMISSION OF OHIO

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

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

- - -

DEPOSITION

of Toby L. Thomas, taken before me, Carolyn D. Ross,
Registered Professional Reporter, and a Notary Public
in and for the State of Ohio, at the offices of
American Electric Power, 1 Riverside Plaza, Columbus,
Ohio, on Tuesday, September 15, 2015, at 9:22 a.m.

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7 On behalf of the Applicant.

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16 On behalf of the Sierra Club.

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21 On behalf of the Office of the Ohio
22 Consumers' Counsel.

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On behalf of Retail Energy Supply
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On behalf of Ohio Manufacturer's
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On behalf of Environmental Law &
Policy Center.

ALSO PRESENT:

Steven Orenchuk, American Electric Power.

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1 Tuesday Morning Session,
2 September 15, 2015.

3 - - -

4 MR. NOURSE: Okay. I'll make an
5 appearance. This is Steve Nourse and Matthew
6 McKenzie on behalf of Ohio Power Company, 1 Riverside
7 Plaza, Columbus, Ohio 43215.

8 MS. WILLIAMS: This is Laurie Williams
9 with the Sierra Club, 50 F Street Northwest,
10 Washington, DC 20010.

11 MR. STINSON: On behalf of the Office of
12 the Ohio Consumers' Counsel, Dane Stinson, Bricker &
13 Eckler, 100 South Third Street, Columbus, Ohio 43215.

14 MR. DARR: On behalf of Industrial
15 Energy Users of Ohio, Frank Darr and Matt Pritchard,
16 21 East State Street, Columbus, Ohio.

17 MS. BOJKO: On behalf of Ohio
18 Manufacturer's Association Energy Group, Kimberly W.
19 Bojko and Rebecca Hussey with the law firm of
20 Carpenter, Lipps & Leland, 280 North High Street,
21 Columbus, Ohio 43215.

22 MR. PETRICOFF: On behalf the Retail
23 Energy Supply Association and the Electric Power
24 Supply Association and P3, Howard Petricoff from the

1 law firm of Vorys, Sater.

2 MR. NOURSE: Okay. And I don't know if
3 you want the nonattorneys that are on, too.

4 THE COURT REPORTER: I wrote their names
5 down.

6 MR. NOURSE: Okay. Ms. Williams. Go
7 ahead.

8 - - -

9 TOBY L. THOMAS,
10 being by me first duly sworn, as hereinafter
11 certified, deposes and says as follows:

12 CROSS-EXAMINATION

13 BY MS. WILLIAMS:

14 Q. Good morning, Mr. Thomas.

15 A. Good morning.

16 Q. How are you doing?

17 A. Doing well. How are you?

18 Q. Quite well. Thank you.

19 Can you please state your full name for
20 the record?

21 A. My name is Toby Lee Thomas.

22 Q. And what is your business address?

23 A. 155 West Nationwide Boulevard, Columbus,
24 Ohio 43215.

1 Q. And who are you employed by?

2 A. I am employed by AEP Generation
3 Resources.

4 Q. And who do you report to?

5 A. I report to Daniel Lee.

6 Q. And who does he report to?

7 A. He reports to Mark McCullough.

8 Q. Okay. Have you ever visited any of the
9 coal-fired power plants at issue in this proceeding?

10 A. Yes, I have.

11 Q. Have you visited all of them?

12 A. Yes, I have. I'm just trying to think
13 of how recently, but, yes, I visited all of them. I
14 just don't remember how recently for every one.

15 Q. Have you ever been deposed before?

16 A. Not in a rate case, no.

17 Q. Have you ever been cross-examined at a
18 hearing?

19 A. I have.

20 Q. Which hearing?

21 A. As referenced in my testimony, it was
22 for Kentucky Power.

23 Q. That's right. And have you ever
24 submitted written testimony in a court proceeding?

1 A. I don't believe I have except for this
2 case.

3 Q. And have you ever submitted written
4 testimony in a Public Utility Commission proceeding
5 other than this case?

6 A. Not to my knowledge, no.

7 Q. Okay. And you have your Bachelor's in
8 Mechanical Engineering; is that right?

9 A. Yes. That's correct.

10 Q. And what year?

11 A. I graduated in 1994.

12 Q. And did any of this education involve
13 coal-fired power plants?

14 A. Not specifically coal-fired power
15 plants, but there was some training and classes in
16 power production.

17 Q. What about pollution controls?

18 A. No, not in college.

19 Q. What about environmental compliance?

20 A. No, not in college.

21 Q. Do you have any other degrees?

22 A. I do not.

23 Q. How about formal training
24 certifications?

1 A. No, I do not.

2 Q. Licenses?

3 A. I do not.

4 Q. Makes things easier.

5 Any employment prior to joining AEP in
6 2001 that was related to power generation?

7 A. No, not to the power generation
8 business, no.

9 Q. Okay. And in 2001 as a project
10 engineer -- that's what you did when you began here,
11 right?

12 A. That is correct.

13 Q. What were your duties?

14 A. My duties were to provide technical
15 support for potential development projects that were
16 under consideration at the time.

17 Q. What do you mean by "development
18 projects"?

19 A. Really at that particular time, it was
20 simply looking at potential cogeneration projects,
21 various projects with industrials. It was just part
22 of the group that I was in.

23 Q. Okay. Any responsibility for fossil
24 fuel generating units?

1 A. No.

2 Q. Any responsibility for pollution
3 controls on fossil fuel generating units?

4 A. No.

5 Q. And any responsibility for environmental
6 compliance?

7 A. No.

8 Q. What about while being the managing
9 director at Kentucky Power, was that your title?

10 A. Kentucky Power, Gas Turbine and Wind
11 Generation, yes.

12 Q. And no coal-fired generation under you
13 at that point, right?

14 A. No. The Big Sandy Power Plant in
15 Louisa, Kentucky was under my direction.

16 Q. What was your position before becoming
17 the managing director at Kentucky Power for --

18 A. Sorry. I have to think about the -- I
19 was the manager of Asset Investments, I believe.

20 Q. And what were your duties there?

21 A. My duties as the manager of Asset
22 Investments were related to looking for opportunities
23 to procure assets from the market to meet the needs
24 of our regulated operating companies at the time.

1 Q. Okay. And are you familiar with the
2 proposed agreement under which AEP would enter into a
3 power purchase agreement with AEP Generation
4 Resources for the output of several of its generating
5 units?

6 A. I am familiar at a high level.

7 Q. Are you familiar with the proposal to
8 include those power purchase agreements into the
9 contracts -- or include those contracts in a PPA
10 rider?

11 A. Yes. At a high level, I am.

12 Q. Okay. And the generating assets for
13 which -- is it okay if I call it AEPGR?

14 A. Yeah. That's fine.

15 Q. Okay. -- for which AEPGR is responsible
16 that are subject to the agreement are Cardinal 1,
17 Conesville 4 through 6, Stuart 1 through 4, and
18 Zimmer 1; is that correct?

19 A. That is correct. Those are the units
20 that are under the operational control of AEPGR.

21 Q. Right. And if I refer to these units as
22 affiliated PPA units, will you understand what I
23 mean?

24 A. I will.

1 Q. Okay. And do you have any
2 responsibilities over the OVEC units? O-V-E-C.

3 A. I do not.

4 Q. If I refer to the proposed agreement as
5 the proposed transaction, will you know what I mean?

6 A. I will.

7 Q. When did you first hear about the
8 proposed transaction?

9 A. To my recollection, it was the original
10 filing in probably about the middle of 2014. I don't
11 remember the exact dates.

12 Q. Okay. Who told you about it, do you
13 remember?

14 A. I don't remember.

15 Q. And what was your role in developing the
16 proposed transaction?

17 A. I did not have a role in developing the
18 proposed transaction. My testimony here is simply
19 about the assets that are part of this proposed
20 transaction.

21 Q. Okay. And do you know who was involved
22 in negotiating the terms of the affiliate PPA?

23 MR. NOURSE: I'm going to object for
24 relevancy. Go ahead.

1 THE WITNESS: I don't know the exact
2 people that were involved. My understanding is there
3 were discussions between the leadership of AEP Ohio
4 and the leadership of AEP Generation Resources.

5 BY MS. WILLIAMS:

6 Q. Okay. When did you start working on
7 your testimony?

8 A. Testimony for this specific case?

9 Q. Yes.

10 A. Again, I don't remember the exact dates.
11 It's been, I think, a couple months ago.

12 Q. I think your testimony is dated
13 May 15th, 2015, right?

14 A. Okay.

15 Q. Do you recall approximately how long
16 before it was filed?

17 A. I don't remember the exact dates.

18 Q. Okay. Did you personally draft it?

19 A. It was drafted under my direction.

20 Q. Okay. And who drafted it under your
21 direction?

22 A. I'm not sure who all was involved in
23 drafting each piece of it, but ultimately it's my
24 testimony and I approved the final text that went in.

1 Q. Okay. Was it people in your shop
2 underneath you that you supervised who drafted it?

3 A. It was mainly people in our regulatory
4 Shared Services group.

5 Q. Is that group under you?

6 A. It's not under me, no.

7 Q. Okay. So they drafted it and you
8 reviewed and verified that it was correct?

9 A. That is correct.

10 Q. Okay. And what is your title?

11 A. Vice-president of Competitive
12 Generation.

13 Q. And you are responsible for the
14 long-term planning of capital investments at the
15 plants; is that correct?

16 A. I am.

17 Q. And for the prudent allocation of
18 capital expenses for the fleet; is that correct?

19 A. That is correct.

20 Q. Do you typically provide services to AEP
21 Ohio or any other regulated utility in your current
22 job?

23 A. I do not.

24 Q. Do you ever provide services to

1 regulated entities?

2 A. Not in my current job. I'm not allowed
3 to provide those services, to my knowledge, under the
4 restrictions under FERC Code of Conduct rules.

5 Q. Okay. With respect to environmental
6 compliance, you state in your testimony that your
7 responsibilities include scrutinizing future
8 investments that are planned for complying with
9 existing and anticipated environmental regulations;
10 is that correct?

11 A. That is correct.

12 Q. And what is your process for
13 scrutinizing future investments that are needed to
14 comply with environmental regulations?

15 A. Within -- within AEP, we have groups in
16 our Shared Services organization that looks at the
17 projected environmental regulations, interprets
18 what's needed to meet those regulations; and then we
19 use our Shared Service Engineering group and Projects
20 group to develop what the appropriate technical
21 solution is; then our Projects group goes through and
22 figures out the appropriate timing and planning to be
23 able to execute the project.

24 Q. So which of those groups falls under

1 your supervision?

2 A. None of those groups are under my
3 supervision, but they're part of AEP Shared Services
4 organization that basically helps out all business
5 units within American Electric Power.

6 Q. So what's your role in scrutinizing
7 future investments that are planned for complying
8 with environmental regulations?

9 A. Well, part of my role is one of the ones
10 that makes the final decision on what we go forward,
11 I make recommendations to my business unit leadership
12 and basically the support groups give us options. We
13 look at what we believe is the best option to meet
14 our needs.

15 Q. And just so I understand, you make
16 recommendations as to, like, a particular technology
17 you should go forward with, or would you make a
18 recommendation as to, for example, what environmental
19 regulations you should go forward with complying
20 with? I'm trying to figure out where in this process
21 you come in.

22 A. Well, I guess it's both.

23 Q. Both.

24 A. Both technical options and which ones --

1 I mean, obviously if the units are going to continue
2 to operate, they must comply with environmental law.

3 Q. Right. At what point does an
4 environmental regulation rise to the level that you
5 would be involved with scrutinizing what to do
6 regarding compliance? And just to make that clearer,
7 is it when there's been a draft rule issued by EPA,
8 or when there's a final rule, or when does that rise
9 to the level that you would start looking at it?

10 A. Both.

11 Q. Both, okay.

12 How about if there's just an
13 understanding, you know, publicly that a rule will
14 come out, say, before the proposed Clean Power Plan
15 came out, but when there was talk of greenhouse gas
16 regulations, would you be thinking about what carbon
17 compliance the company should undertake at that
18 point?

19 A. Yes. We would be thinking about it, but
20 until any constructive rules are put forth it's hard
21 to determine what a potential solution would be.

22 Q. Right. And would you be involved in
23 drafting comments to proposed rules from EPA or the
24 State?

1 A. Generally, no. I don't recall ever
2 drafting comments. We have a Central organization
3 that supports all of AEP that does that.

4 Q. Would that be under Mr. McManus?

5 A. Yes. I believe so, and under legal
6 counsel as well.

7 Q. Sure.

8 A. Based on my knowledge.

9 Q. Okay. So when you said you make
10 recommendations to leadership, that would be both
11 with respect to, "Here's a rule that I think is going
12 to have compliance obligations at our plants," and
13 once you are given this list of how you could comply,
14 you would help select which technology to go forward
15 with; is that correct?

16 A. Yes. I would give recommendations, and
17 then the financial analysis for various options would
18 be developed and then ultimately a decision would be
19 made, but, yes, I would be part of that decision.

20 Q. Okay. So the financial analysis comes
21 after -- so you don't get -- you don't make
22 recommendations based on compliance costs; is that
23 right?

24 A. Oh, certainly I do.

1 Q. Okay.

2 A. That's wrong. So I --

3 Q. Okay.

4 A. Every option that we look at is fully
5 vetted to determine what we believe is the best
6 solution at the lowest possible cost.

7 Q. Okay. So you are involved in developing
8 cost estimates?

9 A. With support from our Central Services
10 here at American Electric Power, yes.

11 Q. Which is Mr. McManus's group?

12 A. Mr. McManus's group takes a look at the
13 regulations and what solutions -- what needs to
14 happen to be able to meet those regulations, and we
15 have engineering organizations and project
16 organizations that help develop the technical
17 solutions and then the ultimate execution of any
18 project.

19 Q. Okay. And I think that is consistent
20 with your testimony, right? You said in your
21 testimony that AEPGR relies upon the Environmental
22 Services organization to interpret environmental
23 regulations and rulemakings and provide guidance, and
24 then you work within your organization to determine

1 the most effective method to comply?

2 A. That is correct.

3 Q. Okay. So is it your group or
4 Environmental Services or someone else who decides
5 whether a cost is reasonable to anticipate?

6 A. I need help with that question. I'm not
7 sure what reasonable to -- I'm not sure what you're
8 asking with "reasonable to anticipate."

9 Q. So in your testimony, you said on Page 6
10 that your job includes scrutinizing future
11 investments that are planned for complying with
12 existing and anticipated environmental regulations.
13 And I guess I'm wondering when -- who decides when a
14 rule is reasonable to anticipate? When does it
15 become an anticipated rule?

16 A. That would be Mr. McManus's group that
17 interprets those rules and then the implementation
18 time line that they feel will best meet that rule.

19 Q. Okay.

20 A. Whatever form it's in.

21 Q. Okay. And then coming back to your
22 statement, you said: Determine the most effective
23 method for each unit to comply. What does "most
24 effective" mean?

1 A. For me it's generally something that
2 meets a criteria obviously of the environmental
3 regulation, and then does it at the lowest possible
4 cost looking holistically at upfront investments and
5 long-term costs, whether there be, you know, any sort
6 of reagents or things that might have to go with it.
7 So it's a holistic view of the lowest possible cost.

8 Q. Would emissions modeling occur under
9 your direction?

10 A. Emissions modeling generally, from my
11 recollection, is done at the direction of
12 Mr. McManus's group when they see it's needed for a
13 specific rule or environmental regulation.

14 Q. Okay. Is part of your responsibility
15 understanding generally which pollution controls are
16 capable of reducing which pollutants?

17 A. Generally, yes.

18 Q. Okay.

19 A. At a higher level, not a very detailed
20 level.

21 Q. And do you review air monitoring data in
22 the course of your duties?

23 A. No, I do not.

24 Q. Okay. What responsibilities do you have

1 with respect to the OVEC units?

2 A. I don't have any responsibilities with
3 respect to those units.

4 Q. Okay. Is it correct that the scope of
5 your testimony includes, one, the economic viability
6 of the PPA units in the deregulated market and, two,
7 anticipated compliance with environmental
8 regulations?

9 A. Yes. I believe that's in there. I
10 don't know if that's all inclusive or not. I'd have
11 to read to make sure.

12 Q. Sure. Maybe not everything, but it
13 includes those two things?

14 A. Yes. It at least includes those two
15 things.

16 Q. All right. And Conesville 4, Stuart 1
17 through 4, and Zimmer 1 are all co-owned plants; is
18 that correct?

19 A. That is correct.

20 Q. And who decides what the anticipated
21 environmental compliance obligations are for the
22 co-owned units?

23 A. The company that operates the units
24 generally takes the lead on deciding what the best

1 solution is for that specific unit, and then the --
2 there's an agreement between the owners, an operating
3 committee that's been established that decides
4 ultimately what investments get made.

5 Q. Are you on that committee?

6 A. I am.

7 Q. Okay. So who else is involved in that
8 committee from AEP?

9 A. Nobody else is a member of that
10 committee, to my recollection, except for me.

11 Q. Okay.

12 A. It's me and then my counterparts with
13 the co-owners.

14 Q. And then is it a voting process, or how
15 do you reach an agreement?

16 A. It's -- depending on the subject, it's
17 usually a voting process.

18 Q. Okay. And how many people are on that
19 committee?

20 A. Three.

21 Q. Okay.

22 A. Three to my recollection. I'd honestly
23 have to go back to look at the documents to see if
24 there's -- there's supporting groups that support the

1 official committee. So I'd have to research to make
2 sure there are -- there isn't anyone else on there.
3 But to my recollection, it's the three of us that
4 make those decisions.

5 Q. And can you remind me, which of the
6 co-owned units does AEP operate?

7 A. Conesville 4.

8 Q. All right. So in your testimony, you
9 talk about anticipating that the AEP -- or the
10 affiliated PPA units will comply with the
11 environmental regulations described by McManus, which
12 are CSAPR, MATS, CCR, 316(b), and the ELG Rule; is
13 that right? It's on Page 6 and 7 of your testimony,
14 top of Page 7.

15 A. That is -- that is correct, yes.

16 Q. Okay. And you state that they are
17 either already compliant or that you have included
18 budgetary estimates for future reasonably anticipated
19 environmental compliance projects in its financial
20 analyses; is that right?

21 A. That is correct.

22 Q. Okay. What do you mean by included
23 budgetary estimates in financial analyses?

24 A. As we discussed before, Mr. McManus's

1 group helps interpret the financial -- or,
2 financial -- environmental rules that we believe are
3 coming either -- whether they're final or draft; and
4 then we, through the process I described earlier,
5 determine what the most likely solutions are; and
6 then we put together budgetary estimates, which is
7 what we've done here to meet what we believe is the
8 most likely outcome based on the input from
9 Mr. McManus's group.

10 Q. Okay. But when you say you have
11 included budgetary estimates, I'm trying to figure
12 out, does that mean included in the financial
13 analyses, does that mean the financial analyses used
14 in this proceeding --

15 A. Yes, it does.

16 Q. -- or just generally?

17 A. No. I've provided our forecasts to
18 Witness Pearce for these investments, and he has
19 included those in the analysis.

20 Q. Do you know how he's included it in the
21 analysis?

22 A. No. I'm not familiar with those
23 details.

24 Q. Okay. So did he ask you for a

1 particular list of projects or did he -- how did you
2 come up with the list that you gave him -- or costs,
3 rather?

4 A. Well, the process is -- what we
5 generally do typically in our business is we go to
6 Mr. McManus's group, we understand what rules are
7 either out there or likely to be out there, and then
8 we forecast the -- what we believe would be the most
9 cost-effective solution to meet that, and we put that
10 into an overall forecast.

11 And for these PPA units, that has been
12 included and provided to Mr. Pearce for his analysis.

13 Q. So when you talk about future reasonably
14 anticipated environmental compliance projects, I'm
15 trying to figure out, when does something become
16 reasonably anticipated? What criteria do you use to
17 decide that you need to reasonably anticipate a
18 project?

19 A. In that area, we rely on Mr. McManus's
20 group.

21 Q. Okay.

22 A. They're our experts on interpreting
23 that, along with our counsel -- our environmental
24 counsel.

1 Q. Okay. But you were responsible in -- is
2 it correct to say you're responsible for developing
3 which costs were included in the forecast you sent to
4 Mr. Pearce?

5 A. Yes. I did develop those.

6 Q. You developed them yourself?

7 A. Well, developed under my direction.

8 Q. Sorry. Okay. So your group developed
9 them?

10 A. Right.

11 Q. Okay.

12 A. With support from the AEP Service
13 Company, who does that work for all AEP business
14 units.

15 Q. Okay. And do you know whether the
16 budgetary estimates were included as an input in the
17 PLEXOS production cost modeling that Mr. Pearce
18 describes in his testimony?

19 A. That, I don't know.

20 Q. And it was just -- the forecast you
21 provided Mr. Pearce, that was just capital costs,
22 right?

23 A. It was all costs for the unit; so
24 capital and operation and maintenance costs were

1 included.

2 Q. So both capital and O&M costs for all
3 reasonably anticipated environmental projects are
4 included in that forecast?

5 A. To the best of our ability, yes.

6 Q. Okay. Do you know -- I'm guessing you
7 don't -- but do you know whether environmental
8 compliance O&M costs were incorporated as inputs into
9 the production cost modeling?

10 A. Can you help clarify with respect to
11 what regulations you're speaking about?

12 Q. The ones you were saying were the
13 reasonably anticipated budgetary estimates that you
14 included in the financial analyses.

15 A. My recollection on those, given that
16 they're not final rules at this point -- although
17 with the exception I honestly don't remember on the
18 CCR rule, that may be a final rule -- the anticipated
19 O&M costs, to my recollection, were not included
20 because we don't feel that they're going to be
21 significant in any form.

22 Q. And, again, it would be your group that
23 would determine -- like, figure out whether those O&M
24 costs were likely to be significant?

1 A. Yes.

2 Q. Okay.

3 A. Yes. With support from, again, the
4 Central organization.

5 Q. Okay. Do the budgetary estimates we're
6 still talking about include environmental compliance
7 costs anticipated for the entire period of the PPAs?

8 A. For -- the budgetary costs are there for
9 the Cross State Air Pollution Rule, the MATS Rule,
10 the CCR Rule, 316(b), and the Effluent Limitation
11 Guideline Rule, yes, for the entire period.

12 Q. So the budgetary estimates you provided
13 to Mr. Pearce, those go all the way out through the
14 whole PPAs, is that what you're saying? You included
15 a cost forecast out through the entire life of the
16 PPAs?

17 A. My recollection is we forecasted for
18 Mr. Pearce through 2024 or 2025. I don't remember
19 exactly.

20 Q. Subject to check, would you accept that
21 it was 2024?

22 A. I would need to check the information --

23 Q. Okay.

24 A. -- to see if it was 2024 or not.

1 Q. Okay. And how did you pick the year
2 that it went out to, whether it was 2024 or 2025?

3 A. Generally for our business, we look at
4 about a 10-year horizon when we do longer-term
5 planning.

6 Q. Okay. Is it your opinion that you can't
7 plan for and anticipate environmental compliance
8 costs after 2024 or 2025?

9 A. No. I wouldn't say that's true. I'm
10 just -- based on what we have out through 2024, we
11 can't anticipate unknown rules. So based on what we
12 see today, we believe it's a reasonable estimate.

13 Q. Do you believe it's reasonable to
14 estimate that the environmental compliance costs
15 after 2024 or 2025 is zero dollars for all of your
16 coal units?

17 A. No. I wouldn't believe that's
18 reasonable.

19 Q. So 2024 or 2025 does not go out through
20 the planned retirement year of each unit; is that
21 right?

22 A. Based on the -- what we've used for the
23 projected retirement is just based off the projected
24 good engineering practice of the life of the assets

1 as far as the equipment goes, and it's been -- the
2 projected life is 2030 or beyond, yes.

3 Q. Okay. So it does not go through the
4 life of the units -- the anticipated life of the
5 units; is that right? I just want to make sure
6 that's what you just said.

7 A. Well, what we gave Witness Pearce is
8 through 2024. If there needed to be cost estimates
9 beyond 2024, we can certainly provide those.

10 Q. Okay. Are you aware of any budgetary
11 estimates that you have, or your group has, or anyone
12 at the company has for the remainder of the life of
13 the affiliated units? And, again, for budgetary
14 estimates, I'm just talking about environmental
15 compliance costs.

16 A. I'm not aware of any, no.

17 Q. Okay. Do you know of any analysis
18 that's been done of those costs?

19 A. Not to my knowledge, no.

20 Q. Okay. In your expert opinion as someone
21 involved with long-term planning, could those costs
22 potentially be significant?

23 A. Can you help me understand what you mean
24 by "significant"?

1 Q. Let's say material. Does that help at
2 all? Say greater than \$100 million.

3 A. It's difficult to answer that question
4 as you're talking simply about environmental costs.

5 Q. Yeah.

6 A. When I look at how we operate the fleets
7 on a holistic basis, it doesn't look simply at
8 environmental costs. So I can't -- I don't know how
9 to answer the question or the level of materiality
10 that you put on there. So I guess I really don't
11 understand your question well enough to be able to
12 provide an accurate answer.

13 Q. Okay. On Page 10 of your testimony you
14 say, "...we have a relatively good picture of what
15 the market will look like three years out in terms of
16 known environmental regulations..."; is that right,
17 Lines 17 through 19?

18 A. That is correct.

19 Q. Okay. What about 10 years out, do you
20 believe you have a good -- a relatively good picture
21 of what the -- the environmental regulatory
22 environment will look like 10 years out?

23 A. I would have to defer to Witness McManus
24 on that front.

1 Q. Okay.

2 A. He provides that expert view into
3 those -- into that projection.

4 Q. Okay. I want to save that for
5 Mr. McManus then.

6 And then going back to that list of
7 rules we talked about, CSAPR, MATS, CCR, 316(b), and
8 the ELG Rule, are there any other rules for which you
9 think compliance costs are reasonably anticipated?
10 Just wondering if this is the complete list of rules
11 that you anticipate compliance costs with.

12 A. These are the -- these are the
13 reasonable rules that we've included in our cost
14 projections to Witness Pearce as part of this
15 proceeding, yes.

16 Q. Right. But are there any others that
17 you think there are compliance costs that are
18 reasonably anticipated?

19 A. Again, I'd have to defer to Witness
20 McManus --

21 Q. Okay.

22 A. -- to be able to answer that.

23 Q. Just want to make sure I cover my bases
24 so he doesn't refer me back to you.

1 Okay. I'm going to give you an exhibit.

2 One second here.

3 (EXHIBIT MARKED FOR IDENTIFICATION.)

4 BY MS. WILLIAMS:

5 Q. This is a discovery response for those
6 on the phone. This is Interrogatory -- Sierra Club
7 Interrogatory Response 2-52. Give you a second to
8 look at it. And this is in regards to the CCR Rule,
9 right?

10 A. I'm sorry. What was your question?

11 Q. This was with regards to the CCR Rule,
12 right?

13 A. Yes. It appears to be related to the
14 CCR Rule.

15 Q. And you prepared this discovery
16 response?

17 A. It was prepared at my direction, yes.

18 Q. Do you know who prepared it?

19 A. I don't recall.

20 Q. Okay. And this states that capital
21 costs of retrofits associated with the CCR Rule were
22 incorporated into the economic analysis of the units,
23 right?

24 A. Yes. That is correct.

1 Q. How were those capital costs developed?

2 A. Like we discussed earlier, they were
3 developed in conjunction with understanding the rules
4 from Mr. McManus's group, and then using our
5 expertise from the AEP Service Corporation to develop
6 technical options and our Projects group to develop
7 an execution plan for the best option, and that cost
8 was pulled together and has been included as part of
9 this forecast.

10 Q. What studies or analyses were used to
11 develop the costs, if any?

12 A. I don't recall any studies being used to
13 develop the costs, it was simply an interpretation.
14 But I'd defer to Witness McManus to be able to
15 understand what they use to determine what would meet
16 the rule. That's McManus's focus for us.

17 Q. When you say "what would meet the rule,"
18 you mean what kind of technology would meet the rule?

19 A. What would be required -- or what would
20 be required to meet the rule, meaning from an
21 environmental regulation perspective, they say they
22 would interpret, this is what we have to do, and then
23 the engineering organization would give us a suite of
24 options to be able to meet that requirement.

1 Q. Okay. So say just as a hypothetical
2 they say that you need to convert wet ash handling to
3 dry ash handling. Who comes up with the estimate for
4 how much it costs to convert to dry ash handling?

5 A. That estimate is pulled together between
6 our engineering organization who, again, supports our
7 entire business in AEP, and our projects
8 organization.

9 Q. And do you know how they develop that
10 number, like, you -- what studies they use, or how do
11 they come up with that number that got incorporated?

12 A. I'm not sure the specific studies that
13 they used relative to this. Some of it's just
14 knowledge, I would assume, based on other projects
15 that we've done in the past and what it would take to
16 execute a project of this type and of this scale.

17 Q. And who would know how those numbers are
18 developed?

19 A. It would be somebody in engineering or
20 our projects organization, but I can't tell you -- I
21 don't know who the specific person would be.

22 Q. Who's the head of the Engineering and
23 Projects group?

24 A. Well, there are two separate groups. So

1 the head of Engineering is Tim Riordan.

2 Q. Tim?

3 A. Riordan, R-i-o-r-d-a-n.

4 Q. Did you get that?

5 A. Sorry.

6 Q. And the other one?

7 A. The head of our Projects group is Chris
8 Beam, B-e-a-m.

9 Q. N or M?

10 A. M, sorry, Beam.

11 Q. Beam. Okay. Thank you.

12 And did you say it was Mr. McManus's
13 group who is responsible for developing comments on
14 proposed rules?

15 A. Yes. It's my -- I believe Mr. McManus's
16 group takes the lead on that. I'm not sure if other
17 groups inside AEP are involved, but from my
18 experience Mr. McManus along with our environmental
19 counsel develops those, yes.

20 Q. Okay. Would you review those comments?

21 A. Generally, no. I don't recall ever
22 reviewing those comments.

23 Q. Okay. I'm next going to go to Discovery
24 Response Sierra Club INT 2-54.

1 MR. NOURSE: Did you mark this as a depo
2 exhibit or are you just asking?

3 MS. WILLIAMS: Yes. Depo Exhibit 1.

4 MR. NOURSE: Okay.

5 (EXHIBIT MARKED FOR IDENTIFICATION.)

6 MS. WILLIAMS: That would be No. 2.

7 MR. NOURSE: Okay.

8 BY MS. WILLIAMS:

9 Q. I'm going to ask you the same questions
10 about this one. So you don't have to -- I mean, feel
11 free to familiarize yourself with the whole thing if
12 you'd like.

13 A. I'd just like to take the time to read
14 it, if that's okay.

15 Q. Yeah. Absolutely.

16 (Pause.)

17 MR. NOURSE: Ready for the next
18 question?

19 THE WITNESS: Yeah. I'm sorry. I
20 didn't want to interrupt.

21 BY MS. WILLIAMS:

22 Q. Okay. So on Page 8 of your testimony,
23 you say that the units with cooling towers may need
24 intake screens and that that is being studied; is

1 that right?

2 A. Yes. That is correct.

3 Q. Have those studies been completed?

4 A. Not to my knowledge. I'd have to defer
5 to Witness McManus.

6 Q. Okay. And then this interrogatory
7 response, which we just talked about, 2-54, says
8 capital costs of retrofits associated with 316(b)
9 were incorporated in the economic analysis; is that
10 right?

11 A. That is correct.

12 Q. Okay. And were these budgetary
13 estimates developed in the same way as the ones we
14 just talked about for the CCR Rule?

15 A. Yes, they were.

16 Q. Okay. So do you know anything about
17 what studies were used to develop these estimates?

18 A. Again, similar to my last response, no,
19 I don't know.

20 Q. Okay. Just wanted to make sure.

21 Okay. Then on Page 8 of your testimony,
22 you also say that additional investment may be needed
23 in Stuart 1 through 3; is that right? It's Lines 7
24 and 8 on Page 8.

1 A. That is -- that is correct.

2 Q. Okay. Were estimates for those
3 additional investments included in the budgetary
4 estimates discussed here?

5 A. I believe they were, but I would have to
6 go back and check to make sure because I don't
7 remember specifically, but I believe they were based
8 on -- again, based on the same approach that
9 Mr. McManus and his organization would help us
10 understand what the requirements would be, and we've
11 developed cost estimates for those. But, again, I'd
12 have to check to see if they were included
13 specifically.

14 Q. Okay. Well, I believe those are
15 confidential; so we can come back to those later.

16 How did you decide that cooling towers
17 would not be needed in any of the units?

18 A. Those conclusions are done by
19 Mr. McManus's group and the interpretation of the
20 rules.

21 Q. Okay. And then when you -- you say --
22 on Lines 9 and 10 of Page 8 of your testimony you
23 say, "...although early indications are that the
24 units will likely not need to install cooling

1 towers..." So that's based on indications from
2 Mr. McManus?

3 A. That is correct.

4 Q. Okay. So you don't know what analysis
5 was done there?

6 A. I do not.

7 Q. Do you know whether any additional
8 analysis has been completed since the time of your
9 testimony?

10 A. I -- I don't know.

11 Q. Okay. And is your -- regarding the
12 costs developed for the ELG Rule and how those costs
13 were developed, is that the exact same process you
14 described for the CCR Rule?

15 A. It is.

16 Q. Okay. And do you know whether any
17 studies were used to develop those cost estimates?

18 A. I do not.

19 Q. Okay. And you don't know whether any
20 analysis of the actual plants or testing was actually
21 done at the plants to determine which technologies
22 would be required?

23 A. I don't recall. I'd have to check.

24 We've done testing over time. I don't know if it was

1 specific, but we do that under the guidance of
2 Mr. McManus's group and our technical experts to help
3 determine solutions, but we do it under their
4 direction.

5 Q. Okay. And then on Page 8 of your
6 testimony, Line 20, this talks about emission
7 allowance purchases if necessary. Have you done any
8 analysis of what allowances will be required under
9 CSAPR, what allowance purchases would be required?

10 A. I have not, no.

11 Q. And who would have done that, if anybody
12 has?

13 A. Let me think. I would -- I believe it
14 would be done by Mr. McManus's group --

15 Q. Okay.

16 A. -- as to whether allowances would be
17 needed.

18 Q. Okay. And did you include any costs for
19 CSAPR compliance in the -- in the budgetary estimates
20 you provided Mr. Pearce?

21 A. I believe the units are all compliant
22 with CSAPR today. So I don't recall any additional
23 costs that would be needed to be compliant with
24 CSAPR.

1 Q. Okay.

2 A. Unless allowances, like we said here,
3 would need to be purchased, but, again, I haven't
4 done that analysis. I think Mr. McManus would do
5 that.

6 Q. Okay. I'm going to refer you to
7 Interrogatory Response 2-51 to Sierra Club, which I
8 will provide you.

9 (EXHIBIT MARKED FOR IDENTIFICATION.)

10 BY MS. WILLIAMS:

11 Q. Just let me know when you're ready.

12 A. Okay.

13 (Pause.)

14 MR. NOURSE: Excuse me. Whoever just
15 joined the phone, it sounds like you have a bad
16 connection. There we go. Try again.

17 THE WITNESS: Okay. I'm ready. The
18 reference in the page and lines in my testimony is
19 incorrect, because the subject of these questions is
20 around -- isn't related to that section of my
21 testimony. So there must be -- there's a disconnect
22 somewhere.

23 MR. NOURSE: Can I offer a potential
24 clarification on that?

1 MS. WILLIAMS: Sure.

2 MR. NOURSE: It might be the original
3 testimony, not the amended.

4 THE WITNESS: Could be.

5 MR. NOURSE: I think the original
6 question and answer might have been relating to the
7 original testimony and then the supplement.

8 THE WITNESS: Okay.

9 MS. WILLIAMS: I believe the paragraph
10 in the discovery response it's referring to is on
11 Page 7 of your current testimony, the discussion of
12 MATS compliance.

13 THE WITNESS: I'm pretty sure my
14 testimony covers this.

15 BY MS. WILLIAMS:

16 Q. Yeah. Sure.

17 A. I just wanted to clarify the section and
18 lines that it references. Okay. I've read through
19 these.

20 Q. Okay. Great. And this says the current
21 amount forecasted to be spent on the MATS retrofit is
22 44 million; is that right?

23 A. That is correct.

24 Q. Who developed that cost estimate?

1 A. That cost estimate was developed similar
2 to other projects between our Engineering
3 organization and our Projects organization.

4 Q. Okay. So you don't know how it was
5 developed, like, the assumptions on which it was
6 based to come up with this exact 44 million as
7 opposed to, like, 20 million?

8 A. Not every assumption, no.

9 Q. Do you know if any studies were used to
10 develop that cost estimate?

11 A. Not to my knowledge. What I recall is
12 it was developed based on quotes from vendors that
13 supplied this particular technology.

14 Q. Okay. What about the statement that
15 there are no significant variable or fixed O&M costs,
16 how did you reach that conclusion?

17 A. We did pilot tests on this particular
18 technology, and now we have the full scale
19 installation completed on Conesville Unit 6. And the
20 way this technology works is it captures mercury and
21 the acid gases, and there are no variable costs that
22 go along with it.

23 Q. Okay. And have you tested the
24 technology at the units?

1 A. It's installed at full scale in 6.

2 Q. Oh, it is. Okay.

3 A. Yeah. That's happened between the time
4 we testified and now, the installation for one unit
5 has been completed.

6 Q. Okay. And that was Unit 6, you said?

7 A. Yes.

8 Q. And in your Supplemental Response, c,
9 you say: Although SCR technology is not installed on
10 Clifty Creek 6, no additional controls are
11 anticipated to be necessary as a result of the MATS
12 Rule. How did you reach that conclusion?

13 A. Well, I'm not responsible for Clifty
14 Creek 6.

15 Q. Okay. But this is your statement.

16 A. It is. I missed that mark. I mean, my
17 intention was Conesville 5 and 6, but I'm not
18 responsible for Clifty Creek Unit 6.

19 Q. Okay. So you don't have a personal
20 basis for this statement?

21 A. No, I do not. It's an error on my part
22 that should have been deleted from my testimony, and
23 I didn't.

24 Q. Okay. All right. I'm going to next

1 present you with Sierra Club Interrogatory 1-8.

2 Sorry, who is the person who's responsible for Clifty
3 Creek 6 within AEP?

4 A. I'm not for sure now. I believe it is
5 Rob Osborne. There was a leadership change there.
6 An individual retired, so -- that used to be
7 responsible for those units, but I believe now it's
8 Rob Osborne.

9 Q. And which group is he in?

10 A. I believe OVEC has its own company. So
11 I'm not -- I can't tell you specifically.

12 Q. Okay. No problem. Okay. Here's
13 Discovery Response Interrogatory 1-8 from Sierra
14 Club.

15 (EXHIBIT MARKED FOR IDENTIFICATION.)

16 MR. NOURSE: This is Exhibit 4?

17 MS. WILLIAMS: Exhibit 4, I believe.

18 BY MS. WILLIAMS:

19 Q. I believe you replaced it with the
20 supplemental response on the back.

21 (Pause.)

22 Q. Actually before you read through this
23 whole thing, it might be worth asking you --

24 A. Okay.

1 Q. -- are questions about compliance with
2 the one-hour SO2 NAAQS and air quality monitoring
3 better directed at Mr. McManus?

4 A. They are.

5 Q. Okay. Good. Let's move on then.

6 Okay. The PPA units all have FGDs
7 installed, is that right, scrubbers?

8 A. That is correct. Yes.

9 Q. And those are controls for sulfur
10 dioxide emissions, right?

11 A. Yes.

12 Q. And what analysis has the company done
13 regarding whether the FGDs at any of the units will
14 need to be upgraded or replaced during the life of
15 the PPAs?

16 A. There's no studies, to my knowledge,
17 that -- to that effect.

18 Q. How long does an FGD typically last
19 before it needs to be replaced in your experience?

20 A. In my experience, generally it's the
21 life of the unit. Any -- any changes are really
22 maintenance related, you know, upkeep of the current
23 equipment.

24 As far as upgrades or replacements,

1 that's very rare in my experience. In fact, I don't
2 know of any in my experience where we've ever
3 replaced an FGD.

4 Q. I just want to check something real
5 quick to see if it's a confidential response or not.
6 Okay. It's confidential; so I'll ask about it later.

7 The next one I'd like to ask you about
8 is Request for Production 1-6 from Sierra Club.

9 (EXHIBIT MARKED FOR IDENTIFICATION.)

10 MR. NOURSE: Is this Exhibit 5?

11 MS. WILLIAMS: Yes.

12 BY MS. WILLIAMS:

13 Q. Actually I'm going to do the same thing
14 here: Are questions about compliance with the ozone
15 NAAQS better directed to Mr. McManus?

16 A. Yes, they are. We rely on his
17 organization to give us this guidance.

18 Q. Okay. So you would not be responsible
19 for determining whether any actions were required to
20 comply with the ozone in the NAAQS; is that right?

21 A. I would rely on Mr. McManus's group and
22 expertise and our environmental counsel to inform me
23 of what would need to be done to comply with any of
24 these rules.

1 Q. Okay. Okay. Can we go to Page 9 of
2 your testimony? Here you're talking about the
3 economic viability of the plants; is that right?

4 A. Yes. That is correct.

5 Q. Okay. Which of the environmental
6 compliance investments that we've covered, so for the
7 budgetary estimates you provided to Mr. Pearce, would
8 you recommend making based on a short-term view,
9 i.e., without the PPAs?

10 A. I haven't completed that analysis. That
11 would require an in-depth view, but I haven't
12 completed that analysis. I can't answer that
13 question.

14 Q. Would that be the sort of analysis that
15 would fall under your purview?

16 A. Generally, yes, as far as giving
17 potential options to be able to meet these
18 regulations like we have. We have a Financial group
19 that would also run projections.

20 Q. Okay. But you haven't been asked to
21 determine which of the anticipated environmental
22 compliance investments you would recommend should go
23 forward regardless of whether the PPAs are approved?

24 A. No, I have not.

1 Q. Okay. On Page 15 of your testimony,
2 Line 11 to the end of your testimony, you talk about
3 the planned retirement dates for the units that you
4 provided to Mr. Vegas; is that correct?

5 A. Yes. That is correct.

6 Q. Okay. What is the basis for those
7 planned retirement dates?

8 A. In this context, the basis is simply the
9 physical condition of the assets and the capability
10 of those assets with proper investment based on our
11 experience.

12 Q. Okay. So how did you determine that
13 date for each unit? You give me an example of one of
14 the units, how you would figure that out.

15 A. Generally based on our experience and
16 talking with our technical experts, our Engineering
17 group, the life was generally approximately 60 years
18 for a fossil fueled asset.

19 Q. And was there a written analysis or any
20 other documentation of, you know, the reasonable
21 engineering judgment that you say was used in
22 identifying those dates?

23 A. Not to my knowledge. It's just based on
24 our experience with other units.

1 Q. Other units in AEP's fleet?

2 A. Yes.

3 Q. Okay. With sufficient maintenance and
4 capital investments, could any of the PPA units
5 continue operating well past those retirement dates?

6 A. In my experience, yes, I believe they
7 could with proper investment.

8 Q. Okay. On Page 13 of your testimony, you
9 talk about how it is more likely that they will be
10 retired and you talk about their premature
11 retirement. Do you know whether any of the plants
12 are planned to be permanently retired if the proposed
13 transaction is rejected by the Commission?

14 A. I know of no plans currently to retire
15 the units if the PPA is not proposed -- or is not
16 approved, sorry.

17 Q. Sorry. Is there any analysis you've
18 done as to which of the units you would recommend be
19 permanently retired if the proposed transaction is
20 not approved?

21 A. Not to my knowledge, no.

22 Q. Has anyone told you that any of the
23 plants would be permanently retired if the proposed
24 transaction is rejected?

1 A. No, they have not.

2 Q. Okay. And who at AEPGR would decide
3 whether the units would be permanently retired?

4 A. Based on my experience, those decisions
5 would be made by executive leadership inside AEP
6 Generation Resources.

7 Q. Is there any reason the plants couldn't
8 be idled instead of retired?

9 A. It's difficult to answer that question
10 without knowing all the circumstances by which a
11 plant might be idled or retired. There's numerous
12 inputs that would go into that potential decision.
13 So I don't know how to answer that.

14 Q. Has any analysis been done of whether
15 the plants could be idled instead of retired?

16 A. Not to my knowledge, no.

17 Q. Who would do that analysis?

18 A. Generally it would be our Financial
19 group within AEP Generation Resources with the type
20 of forecasting that we provided here to Dr. Pearce,
21 meaning here's what we think it's going to cost to
22 adequately operate and maintain the units, and our
23 Financial group would run that and see what the
24 outputs are.

1 Q. And who's in charge of the Financial
2 group?

3 A. Inside where?

4 Q. AEPGR.

5 A. That Financial group would be Tom Myers.

6 Q. Did you by any chance listen to the AEP
7 earnings call done by your CEO?

8 A. I've listened to a couple over time, but
9 I don't listen to everyone. So I'd have to know
10 which one you're referring to.

11 Q. How about the April 23rd, 2015, one?

12 A. I honestly don't remember if I was on
13 that call or not.

14 Q. Do you recall whether your CEO has
15 stated publicly that if the PPAs were not approved,
16 they would have to either -- they would have to sell
17 the units? Is that a statement you've heard?

18 A. All I've heard are executive -- our CEO
19 talk about we're going through a strategic review to
20 find out what the best solution is for our
21 competitive business, whether it be to keep the
22 units, to spin the units into their own company, or
23 to sell the units.

24 Q. Okay. So it's correct that the units

1 could be sold rather than retired?

2 A. I would say if the -- through the
3 strategic evaluation or strategic review it's deemed
4 that that's in the best interest of the shareholders
5 of AEP, they could be retired, but I can't say
6 specifically. I'm not responsible for those
7 decisions.

8 Q. Are you responsible for whether the
9 units would be retired or not, the decision to retire
10 them?

11 A. The final decision, no, I'm not.

12 Q. Would you make a recommendation as to
13 what to do with them?

14 A. Generally I will give input into what I
15 think it will take to properly operate and maintain
16 those units safely and reliably, and then any
17 decisions as to the ultimate disposition of a unit
18 would be made through executive leadership.

19 Q. Okay. On Page 13 of your testimony,
20 Lines 14 and 15, you say, "AEPGR is working
21 diligently to drive down the cost of operating these
22 plants so they can compete in the market"; is that
23 right?

24 A. Yes. That is correct.

1 Q. How is AEPGR working to drive down those
2 costs?

3 A. We have worked very diligently over the
4 past approximately three years to use lean production
5 techniques to help drive down those costs to the
6 extent we can.

7 Q. What's a lean production technique?

8 A. It's similar to the Toyota Production
9 Model.

10 Q. Have you foregone any investments in
11 certain equipment to drive down the costs?

12 A. I guess I would need help in
13 understanding what you're referencing. Certain
14 investments, that's a fairly broad statement.

15 Q. That's fair. Have you foregone O&M --
16 maybe routine O&M or other plant retrofits that you
17 would otherwise recommend doing in light of the
18 current market conditions?

19 A. Not to my recollection to this point,
20 but, again, it's a detailed analysis with a lot of
21 information over the last two years. So I'd have to
22 check to verify completely, but not to my
23 recollection.

24 Q. Okay. What timeframe is used to make

1 investments? Do you look at a short-term or is it a
2 three-year horizon or a five-year horizon?

3 A. For us now, most of our projects look
4 primarily at a three-year horizon simply because
5 that's where we have more predictability to the
6 greatest extent we can within the PJM revenue
7 forecast for capacity and energy revenues. Beyond
8 that, we don't know what we're going to make. So
9 most investments need to return a profit of some sort
10 within that time period.

11 Q. And do all of the anticipated
12 environmental costs that you provided to Mr. Pearce
13 meet that three-year return horizon?

14 A. We haven't done that analysis in the
15 three-year return horizon. We've provided that to
16 Witness Pearce who has done his own analysis.

17 Q. So he'd be the one to ask how long it
18 would take for those investments to pay off?

19 A. He's -- yes. He's done the analysis in
20 this case.

21 Q. And you call the units at one point
22 marginal. Do you recall doing that?

23 A. I do.

24 Q. What do you mean by marginal in terms

1 of revenue? Can you just give me -- does it mean
2 10 million net revenue or 100 million? What do you
3 mean when you say "marginal"?

4 A. Well, what I mean when I say marginal is
5 based on -- each specific unit has different
6 characteristics, but based on its fixed cost profile
7 and variable cost profile, the expected revenues for
8 those units don't provide a very solid return.

9 Q. What do you mean by "very solid return"?
10 I'm looking for kind of a ballpark number.

11 A. I don't have a number to give you at
12 this point. I'm just saying it's not -- it's not
13 something where we are encouraged as a company to put
14 investments into these units just because the return
15 in some cases is low.

16 Q. Okay. So if the units were profitable
17 next year by \$100 million, would that be marginal --
18 fall into your marginal definition?

19 A. I don't have a specific definition for
20 marginal.

21 Q. Okay. Give me one second, I want to see
22 if I have any other questions.

23 (Pause.)

24 Q. Okay. Can we go to Page 10 of your

1 testimony, Lines 12 through 20. Can you read out
2 loud that paragraph?

3 A. Page 10, Lines 12 through 20?

4 Q. Yeah.

5 A. Begins with the question, "What is your
6 approximate planning horizon for capital investments
7 as it exists today?"

8 And goes into the answer, "With the
9 current state of the electricity market, my horizon
10 for making investments in the generating units
11 generally goes out approximately three years.
12 Obviously, the farther into the future we look the
13 more uncertainty is introduced, but at least for a
14 three year period we have a price signal in the
15 capacity price that resulted from the most recent PJM
16 Interconnection Reliability Pricing Model auction,
17 where capacity prices are set in future years based
18 on offers into that auction. Also, we have a
19 relatively good picture of what the market will look
20 like three years out in terms of known environmental
21 regulations and likely plant retirements both
22 internal and external to our Company. There can
23 still be a great deal of variability in these
24 signals, particularly the capacity payment amount,

1 but it does provide something to use that far out
2 that is reliable for planning purposes."

3 Q. Okay. Is it your testimony that
4 near-term market forecasts are more reliable than
5 long-term market forecasts?

6 A. Well, from my testimony from what I can
7 see, reliable is simply what I know. So I see marked
8 numbers for three years for capacity. Beyond that,
9 there's nothing there. So for my definition,
10 reliable is what I know.

11 Q. Okay. So the next -- the three-year
12 market forecast is more reliable than, say, a 10-year
13 forecast; is that right?

14 A. Well, I'm not a forecasting expert. So
15 I don't -- I just say we make decisions based on what
16 we see, and within the market that we're in that goes
17 about three years. But I'm not a forecasting expert;
18 so I can't provide an opinion on that.

19 Q. But you're testifying on the reliability
20 of price signals from the market, right?

21 A. What I'm testifying to is simply I have
22 no price signals beyond three years from the market.

23 Q. Okay. So do you never make
24 recommendations for investments that are -- have a

1 longer than three-year payback period?

2 A. I can't say never. I would have to look
3 at history and specific investments and on which unit
4 they were in and, you know, what the outlook was for
5 those. But I can't say without looking through.

6 Q. Going back to your -- the questions I
7 was asking you before about retiring versus selling
8 the units, would you recommend that the units be sold
9 instead of retired?

10 A. I'm not at liberty to make that
11 recommendation.

12 Q. That's not within the scope of your
13 duties?

14 A. No, it's not.

15 Q. Okay.

16 A. Like we discussed before, those
17 decisions are made by executive leadership.

18 Q. Sure. But would you be asked to
19 recommend what be done with the units?

20 A. Possibly, but not always.

21 Q. Okay. So have you thought about if
22 AEP's application in this proceeding were rejected,
23 whether you would recommend that a certain unit be
24 sold or retired?

1 A. I have not.

2 Q. Okay. I do have more questions, but
3 they are all about confidential stuff. So I'm
4 finished for now.

5 MR. NOURSE: Okay. I do have a separate
6 number that I'll e-mail out to the parties that --
7 for the confidential in a little bit, but do other
8 people have questions for the public segment of the
9 deposition?

10 MR. STINSON: I have a few questions.

11 MR. NOURSE: Okay.

12 - - -

13 CROSS-EXAMINATION

14 BY MR. STINSON:

15 Q. Good morning, Mr. Thomas. I'm Dane
16 Stinson. I'm representing the Office of the Ohio
17 Consumers' Counsel.

18 A. Good morning.

19 Q. Just a few questions. First of all,
20 just to make sure I understood some of the answers
21 that you previously provided here today. I think you
22 had a question posed to you whether AEPGR operated
23 all of the affiliated units; is that correct?

24 A. I think the question was which ones we

1 operate, yes.

2 Q. Okay. Just --

3 A. But I believe it was related to the
4 shared units or the co-owned units.

5 Q. Okay.

6 A. I don't recall exactly.

7 Q. Let me clarify it for myself then --

8 A. Okay.

9 Q. -- because I obviously didn't understand
10 what was said.

11 Conesville 4, 5, and 6, AEPGR operates,
12 correct?

13 A. That's correct.

14 Q. And Stuart 1, 2, 3, and 4, DP&L
15 operates, correct?

16 A. That is correct.

17 Q. And Dynegy operates Zimmer?

18 A. That's correct.

19 Q. And Cardinal Unit 1, Cardinal operates
20 that?

21 A. Well, AEPGR operates it on behalf of
22 Cardinal Operating Company.

23 Q. And do you know the percentage of
24 AEPGR's interest in the shared units?

1 A. Generally, yes. I don't know if I know
2 it down to the decimal point or not.

3 Q. See if this refreshes you:
4 Conesville 4, is AEPGR's interest 43.5 percent?

5 A. I believe that's correct, yes.

6 Q. And Unit 5 is 100 percent?

7 A. That's correct.

8 Q. And 6 as well?

9 A. Yes.

10 Q. Stuart 1 is 26 percent, and 2 and 3 and
11 4 is 26 percent?

12 A. I believe that's correct, yes.

13 Q. And Zimmer is 25.4?

14 A. I believe that's correct, yes.

15 Q. Now, do you also know the percent of
16 ownership by the other entities that own these shared
17 units?

18 A. I don't remember those specific
19 ownership percentages between the other two owners.

20 Q. And who are the other owners for
21 Conesville 4?

22 A. For Conesville 4, it's AES through their
23 subsidiary, Dayton Power & Light, and now Dynegy,
24 previously Duke Energy.

1 Q. And Stuart 1 through 4, who were the
2 other owners for those units?

3 A. The same.

4 Q. The same. And would the same be true
5 for Zimmer?

6 A. Yes.

7 Q. I believe you also answered some
8 questions regarding the operating committee. And I
9 believe you indicated that the committee would take a
10 vote as to what O&M expenses or investments to
11 approve; is that correct?

12 A. Generally. I'd have to go back and
13 review the detail documents to know. There's
14 different voting depending on the subject, but
15 generally, yes.

16 Q. Would the three members on that
17 operating committee be comprised of one member,
18 yourself, from AEPGR; one from Dynegy; and one from
19 DP&L?

20 A. Yes.

21 Q. Is -- the vote that's taken, is that
22 required to be unanimous for all decisions?

23 A. It's not.

24 Q. A majority vote for some decisions?

1 A. To my recollection. But, again, I'd
2 have to check the agreements for the specifics on
3 each scenario. My recollection is some are
4 unanimous, some are majority.

5 Q. What about a decision to retire the
6 plant, does that require a unanimous decision?

7 A. I would have to check the agreements for
8 sure, but my recollection is that a retirement
9 decision does require a unanimous decision.

10 Q. Just give me a second, please.

11 (Pause.)

12 Q. I'll mark this as OCC Exhibit 1.

13 (EXHIBIT MARKED FOR IDENTIFICATION.)

14 BY MR. STINSON:

15 Q. And it is OCC's Interrogatory, Fifth
16 Set, No. 125.

17 A. I've read through it.

18 Q. You've read it?

19 A. Yes, I have.

20 Q. Does that refresh your recollection?

21 Isn't it true that the unanimous decision is required
22 to retire one of the affiliated plants, or one of the
23 shared plants?

24 A. That is correct.

1 Q. Thank you. I'm a little bit confused as
2 well that your prior testimony you stated that you
3 looked at a three-year horizon in making your
4 forecasts, correct?

5 A. Generally.

6 Q. And you considered that horizon to be
7 more predictable or reliable than a longer horizon?

8 A. Just simply from the fact that we can
9 see market price signals in that three-year horizon.

10 Q. And then isn't it true that in this case
11 you provided forecasts to Mr. Pearce for the period
12 from 2015 to 2004 -- or, 2024? I'm sorry.

13 A. All I provided to Witness Pearce is what
14 I believe the reasonable and prudent level of
15 investment in the units would be. I did not provide
16 any market forecasts.

17 Q. You provided that for the nine-year
18 period, though?

19 A. Estimated costs and investment in the
20 units?

21 Q. Right.

22 A. Yeah.

23 Q. And that would include costs for
24 environmental equipment during that nine-year period?

1 A. Based on our understanding of the rules,
2 yes.

3 Q. Would your estimate -- or, would that
4 nine-year information you provided to Mr. Pearce,
5 would that be more reliable or less reliable than the
6 three-year information or data provided to him?

7 A. You need to clarify. There's a distinct
8 difference between -- what I'm talking about in the
9 three-year planning horizon is simply due to the
10 economic forecast. What I've provided to Witness
11 Pearce is what we believe would be prudent to keep
12 the units safe and reliable in the future. It's not
13 related to an economic forecast, it's related to what
14 we believe those prudent investments in the units
15 would be.

16 Q. Okay. Thank you.

17 I believe you also answered, in response
18 to a question regarding what environmental
19 investments AEPGR would make to a short-term view if
20 the PPA were not approved, I believe you answered you
21 had not completed that analysis, correct?

22 A. That is correct.

23 Q. Have you done any analysis if the PPA
24 were approved?

1 A. I have not done any analysis. I
2 provided my prudent investment recommendations to
3 Witness Pearce who completed the analysis.

4 Q. You also had a discussion about whether
5 the affiliated units could be sold if the PPA were
6 not approved. Do you recall that?

7 A. If they could be sold?

8 Q. If the PPA were not approved, the -- the
9 conversation was, "Could the PPA -- if the PPA were
10 not approved, could the affiliated units be sold?"
11 Is that -- do you remember that line of questioning?

12 A. Generally, yes.

13 Q. Okay. If the PPA were approved, could
14 the affiliated units still be sold?

15 A. It's not part of my testimony, but my
16 understanding is the way the power purchase agreement
17 is written, the PPA units could be sold. But, again,
18 I would have to go back and check and rely on other
19 witnesses that did that. That's my understanding.

20 Q. Who would be that witness?

21 A. I believe it would be either Witness
22 Vegas or Allen, I think, but I'm not -- I don't know
23 for sure.

24 Q. You also mentioned the Toyota Production

1 Model. What is that model?

2 A. The Toyota Production Model is simply a
3 way to go back and continuously analyze how we do
4 things and try to drive efficiency and, you know,
5 cost improvements at every level of how we operate.

6 Q. I'm going to ask you a few questions
7 about your testimony as well. At Page 2, I believe
8 Line 2 the statement involved "...and the operation
9 and maintenance of a portion of AEP's generation
10 fleet." What portion would that be?

11 A. Well, it's changed over time.

12 Q. Can you be more specific?

13 A. It's -- well, as part of our fleet, I've
14 been responsible for anywhere from wind turbines in
15 West Texas to natural gas-fired plants to coal
16 plants. So it's just depending on how we decided to
17 operate the business as American Electric Power, I've
18 had involvement in many of those units over time.
19 That's what I meant by this statement.

20 Q. You'll have to excuse my pauses here,
21 because I think many of my questions have been asked.
22 I'm just trying to cut back some.

23 You've testified earlier that it would
24 take a unanimous decision to retire any of the

1 affiliated units, but would it be correct then if
2 Dynegy opposed retiring the plants, the plants would
3 not be retired?

4 A. Given it takes unanimous vote, I would
5 say that would be a true statement.

6 Q. On Page 7 of your testimony, at Lines 12
7 to 19, you discuss the MATS Rule.

8 A. Oh, I'm sorry. I didn't know that was a
9 question. Yes.

10 Q. I thought you were reading it.

11 A. Oh, no. I'm sorry.

12 Q. Okay. I was waiting for you.

13 A. My apologies. Yes.

14 Q. It's just a simple question: You use on
15 Line 14 the word "anticipated," and I'm just
16 wondering what you mean by that, particularly whether
17 additional equipment could be needed?

18 A. No. Simply at the time this was
19 written, the MATS Rule was not in full force and
20 effect. It has been in full force and effect for
21 many of our units since April 15th of this year, and
22 each one of these units is in compliance with MATS.

23 Q. Thank you.

24 A. Now, Conesville Unit 5, the installation

1 will occur in spring of next year.

2 Q. And that's with the new technology?

3 A. Yes.

4 Q. And you state there on Line 17, "Based
5 on pilot scale testing..." What do you mean by that?

6 A. On that particular unit, we took this
7 technology and we made a slip stream. So we'd take
8 exhaust gas out, go through, do testing. But since
9 then, that full scale has been installed successfully
10 on Conesville Unit 6 and it is compliant with MATS.

11 Q. And you expect the same with Unit 5
12 then?

13 A. We do. We did get an extension through
14 April 16th of 2016 to be compliant with MATS under
15 the MATS Rule, Ohio EPA gave us that extension. So
16 Conesville 5 and 6 don't have to be compliant until
17 then, but we have all the operational data to
18 demonstrate that on Unit 6, and we're confident
19 Unit 5 will be compliant as well.

20 Q. Page 8, Line 4 down through Line 6 or 7,
21 you state that there is a -- may be a need to modify
22 intake screens. Has that determination been made?

23 A. I'd have to defer to Witness McManus on
24 that decision. I believe we've given an estimate on

1 these cost forecasts, based on, but I can't say for
2 certain on that.

3 Q. Okay. You've also stated early
4 indications are that the units will not need a
5 cooling tower. Is that a deferral to Mr. McManus as
6 well?

7 A. Yes.

8 Q. Page 7, Line 20, over to Page 8, Line 3,
9 you discuss the CCR Rule, and particularly moving
10 from wet ash to dry ash for Stuart 1 through 4,
11 Cardinal.

12 A. Yes. That's correct.

13 Q. Okay. Is AEPGR considering potential
14 modifications to the PPA unit surface impoundments?

15 A. Which surface impoundments are you
16 referring to?

17 Q. At any of the plants.

18 A. I would have to check, but I believe
19 that the surface impoundments that are there today
20 are capable of taking and permitted to take that
21 waste.

22 Q. I'm sorry. I didn't hear you.

23 A. I said I believe, but I'd have to
24 double-check, I believe the landfills that we have

1 today are permitted of taking this waste now, they
2 already exist, but Witness McManus could verify that.

3 Q. He'd be the primary witness for that
4 question?

5 A. Yes.

6 Q. Thank you. At Page 9, Line 7, and
7 throughout your testimony really, you use the word --
8 the phrase "next few years." What do you mean by
9 that?

10 A. What I mean by that is just simply
11 approximately three years ahead.

12 Q. On Page 9, Line 11 -- actually we'll go
13 up to Line 9 states, "These units are capable of
14 safely and reliably generating electricity, and can
15 be economically viable in a deregulated market if the
16 market price of electricity reaches sufficient
17 levels."

18 What is that level, do you know?

19 A. I'm not aware of what that level is.
20 I'm not aware of any specific number.

21 Q. Has there been any studies to what that
22 level would be, to your knowledge?

23 A. Not to my knowledge, no.

24 Q. Would there be a witness -- another

1 witness who could answer that question?

2 A. Witness Pearce did the economic
3 evaluation for these units; so he would be the one I
4 believe would be most ready to answer that.

5 Q. Did you assist Mr. Pearce at all in
6 making his forecasts?

7 A. I did not, other than providing the --
8 the investment forecast or cost forecast for capital
9 and O&M.

10 Q. As a member of the -- I believe the
11 operating committees for the shared units, have you
12 discussed with the other members plans for retiring
13 any of the shared units?

14 A. I have not.

15 Q. Do you know if those other owners or
16 members have plans to retire those units?

17 A. I don't know.

18 Q. Do you have any knowledge of whether any
19 of those owners have plans not to retire those units?

20 A. I don't know that, either.

21 Q. Who made the decision as to what units
22 to include in the PPA?

23 A. I -- I was not involved in that
24 decision. I believe that Witness Vegas and others

1 inside AEP made the decision which units to include.

2 Q. Do you know if there was any
3 consideration to include the Gavin plant?

4 A. I don't know.

5 Q. On Page 3 of your testimony, you state
6 that the Conesville's Units 4, 5, and 6 are equipped
7 with over-fire air systems that further reduce NOx.

8 A. Yes. That is correct.

9 Q. Has the over -- has the over-fire air
10 system been considered for the other affiliated
11 units?

12 A. I don't recall. I'm not sure that that
13 technology would be needed with the installation of
14 the SCRs that those other units have on them, but I'd
15 have to defer to our technical experts.

16 Q. Who would that be?

17 A. Back to our Engineering Department, it
18 would be Tim Riordan as I had mentioned before, and
19 Witness McManus would probably be part of that
20 conversation just in understanding.

21 Q. Now, Conesville 4 has an SCR plus the
22 over-fire, whereas Conesville 5 and 6 have the
23 over-fire but not the SCR.

24 A. That is correct.

1 Q. What's the rationale for that?

2 A. My understanding at this point -- it
3 would be better -- this question would be better
4 focused for Witness McManus -- but my understanding
5 is we didn't believe that SCR was needed on those
6 units, but, again, we take that guidance from Witness
7 McManus's group.

8 Q. We'll ask him.

9 A. Okay.

10 Q. I don't know if -- I won't get into
11 confidential. If this gets into confidential, let me
12 know, though.

13 Do you know what the estimated capital
14 expenditures would be to install over-fired air
15 systems?

16 A. I do not.

17 Q. Who would know that?

18 A. There would have to be studies done to
19 see if it would be possible. It would be a
20 combination of our Engineering group and our Projects
21 group that I mentioned earlier.

22 Q. Again, back to Conesville 5 and 6 that
23 do not have the SCR, has the SCR systems been
24 considered for those units?

1 A. I don't recall. They may have been
2 considered in the past, but I don't -- I don't recall
3 when.

4 Q. Who would know that?

5 A. Again, I believe Witness McManus would
6 know.

7 Q. And do you know the capital expenditures
8 to install SCRs?

9 A. I don't.

10 Q. Same reason as before?

11 A. I guess clarify which units are you
12 talking about?

13 Q. Well, for the Conesville 5 and 6.

14 A. Yes. For Conesville 5 and 6, I don't
15 know what it would cost to install SCRs.

16 Q. You're talking about, as you did with
17 the over-fired, the need for studies?

18 A. Yeah. There would have to be a study
19 completed by those subject matter experts to
20 determine what it would take.

21 Q. On Page 6, Lines 14 and 17 -- that's the
22 wrong cite. Let me -- would AEPGR be able to recover
23 the capital expenditures made for the installed
24 environmental equipment it has already made if the

1 plants were shut down?

2 A. Can you help me -- under what scenario
3 if the plants were shut down?

4 Q. Well, if they were retired.

5 A. I guess under the PPA submittal or today
6 or -- I guess I don't understand the question.

7 Q. Well, yeah, under the PPA. If the PPA
8 were approved and the plants were retired, would
9 AEPGR be able to recover its fixed costs for those --
10 for that environmental compliance?

11 A. I'm only aware at a high level, but I
12 believe that if the plants were retired, I believe
13 AEPGR is -- would get its net book value, I believe.
14 But, again, I wasn't involved with putting it
15 together; so I only know at a high level. Other
16 witnesses could answer that question better.

17 Q. Who would that be?

18 A. I believe it would be either Witness
19 Vegas or Witness Pearce probably.

20 Q. On Page 11, Lines 14 through 20, you
21 talk a bit about the effect of a shutdown of the
22 plants.

23 A. Yes. That is correct.

24 Q. And could new plants be constructed to

1 replace those plants that were retired?

2 A. Yes. I believe new plants could be
3 constructed.

4 Q. Would that lead to new construction
5 jobs?

6 A. It's possible, yes, if they were to be
7 constructed there would be construction jobs
8 associated therewith.

9 Q. And new employment?

10 A. Yes. It's possible that some level of
11 new employment would be available.

12 Q. Now, under the PPA, is AEPGR committing
13 to operate the plants through their current
14 retirement dates?

15 A. Well, under the construct of the PPA, we
16 would work with the customer -- in this case, AEP
17 Ohio -- to make the -- you know, offer solutions, and
18 AEP Ohio would ultimately make the decisions of what
19 investments get made in those units for the benefit
20 of the customers and then subsequently how long they
21 may go before they retire.

22 Q. But AEPGR is not committing to operate
23 those plants until their current retirement dates; is
24 that correct?

1 A. Well, no. I wouldn't say -- if AEP Ohio
2 chooses to make those investments that can keep the
3 units operating, they certainly could operate.

4 Q. I'm just asking for a commitment to,
5 say, operate Zimmer until 2051 under the PPA.

6 A. Based on my experience with the PPA
7 arrangement and sufficient investments through that
8 arrangement, those units could be operated reliably
9 through that time period.

10 Q. Under the PPA, would AEPGR be required
11 to operate that plant or those plants through their
12 expected life?

13 A. That, I'm not sure. I'm not that
14 familiar with the details of the PPA.

15 Q. That would be Mr. Vegas again?

16 A. I believe so, yes.

17 Q. That's all. Thank you, Mr. Thomas.

18 THE WITNESS: Is it possible to take a
19 five-minute health break?

20 MR. NOURSE: Yeah. First can we ask, is
21 anybody else on the phone going to have questions for
22 the public session?

23 MR. PETRICOFF: This is Howard.

24 MR. DARR: Yes, I will.

1 MR. NOURSE: Okay. Great. We'll take a
2 five-minute break and be right back.

3 (Recess taken.)

4 MR. NOURSE: We're back and ready to go.
5 Who is next? Is it Howard or --

6 MR. PETRICOFF: I'd be glad to go. I
7 only have a few questions.

8 - - -

9 CROSS-EXAMINATION

10 BY MR. PETRICOFF:

11 Q. Good afternoon. Mr. Thomas, are you
12 ready to start?

13 A. Yes, I am. Thank you.

14 Q. Okay. Let me go down the list, and if
15 you recall let me know, if not, I'll take a rough
16 guess on age.

17 Do you know what the in-service date was
18 for the Cardinal plant, Unit No. 1?

19 A. I believe it was 1967, but I need to
20 check. I believe it's in my testimony. Yes, 1967
21 for Cardinal Unit 1.

22 Q. Okay. And for the Conesville Units 4,
23 5, and 6?

24 A. Conesville 4, 5, and 6; Conesville

1 Unit 4 was placed in service in 1973, and Conesville
2 5 and 6 were placed into service 1976 and 1978
3 respectively.

4 Q. And then finally the Zimmer plant.

5 A. The Zimmer plant was placed in service
6 in 1991.

7 Q. Okay. Oh, and I'm sorry, I forgot the
8 Stuart plants. Do you have dates for those?

9 A. Yes. Stuarts 1 through 4 were placed
10 into service in 1971, 1970, 1972, and 1974
11 respectively.

12 Q. Okay. Now, if -- if AEPGR was going to
13 close the plants, what would be the internal process
14 it would go through first before it would decide
15 whether to close a unit?

16 A. Generally the internal process would be
17 to make -- we'd have to make some sort of forecast as
18 far as cost and market, and then run economics based
19 on, you know, an expected or return from our
20 shareholders, and then eventually our executive
21 leadership would make the decision whether or not the
22 financial goals were met or not.

23 Q. Okay.

24 A. And whether or not a unit would be

1 retired or not.

2 Q. And as part of that process, would you
3 also look at the decommissioning costs?

4 A. Possibly.

5 Q. Do you have decommissioning cost
6 estimates or ballpark numbers for what it would cost
7 to close the Cardinal plant?

8 A. There are different categories of
9 decommissioning costs in my experience. Some I
10 believe we have cost estimates for, yes, as far as
11 what's required by law as related to asbestos
12 abatement and other things. But as far as the
13 deconstruction of the plant, I'm not sure if we have
14 those in the forecast or if we have estimates for
15 those or not.

16 Q. Okay. Well, order of magnitude, what
17 would it take to decommission the Cardinal No. 1?

18 A. I don't know. That would take a fairly
19 extensive study, because each unit and each site is
20 unique in what would be required.

21 Q. But are we talking about millions, tens
22 of millions, hundreds of millions?

23 A. Again, we would need to do a study
24 because it varies; so I can't say.

1 Q. Okay. Now, I know with the Cardinal we
2 have a little different corporate structure in that.
3 You've got the Cardinal plant, like I said. Is it a
4 partnership? There's a legal entity for the Cardinal
5 units that's holding them?

6 A. That is correct.

7 Q. Okay. We talked before in your
8 questioning by the previous counsel about approvals
9 that you'd have to get. What's the -- what would be
10 the approval of the -- we'll call it the Cardinal
11 partnership in order to close the Cardinal unit?

12 A. To my knowledge, the units themselves in
13 Cardinal are owned specifically. The Cardinal
14 Operating Company looks at the operation, but Unit 1
15 is owned wholly by AEP Generation Resources, and
16 Units 2 and 3 are owned wholly by Buckeye Power.

17 To my recollection, there is no input
18 from Buckeye into decisions involving Cardinal
19 Unit 1.

20 Q. Okay. I vaguely recollect in reading
21 through the discovery, though, that there are backup
22 requirements that -- from Cardinal 1 for them. Is
23 the Buckeye unit Cardinal 2?

24 A. Buckeye has two units there, Cardinal 2

1 and Cardinal 3.

2 Q. Okay. Are -- what are the obligations
3 that you would have to back them up, and would that
4 require AEPGR to keep the unit going?

5 A. To my recollection, again, I'd have to
6 look at the agreements, but there is a -- there is an
7 arrangement between Buckeye and AEPGR about it's more
8 than any type of backup arrangement. There's sharing
9 of excess revenues and then there's sharing of costs
10 if, you know, backup power is required for some
11 reason.

12 And I don't know that the obligation, to
13 my recollection, is directly from Cardinal. I think
14 the obligation is to back it up either off of our
15 fleet, if necessary, or from the market, whatever
16 makes sense at the time.

17 Q. Okay. So the backup would be going on,
18 irrespective of what happened to the Cardinal unit,
19 Cardinal No. 1? I'm sorry.

20 A. Well, the arrangement between AEPGR and
21 Buckeye, yeah, that arrangement -- it depends on what
22 the outcome of that particular arrangement is. It's
23 not necessarily related to Cardinal Unit 1
24 specifically.

1 Q. Okay. What governmental notices would
2 have to be -- would have to be given if you decide to
3 close one of the affiliated PPA plants?

4 A. I'm not familiar with all those notices.
5 Witness McManus could provide more detail on that.
6 My recollection is we'd need to require -- or, need
7 to provide 90 days' notice to PJM before a unit could
8 be retired, but as far as the other regulatory
9 agencies, I'm not sure.

10 Q. Okay. Has there been any discussion at
11 AEP or contingency reviews about listing any of the
12 affiliated PPA plants under the PJM must-run unit
13 program?

14 A. Not to my knowledge. Generally PJM
15 would come to a specific unit if it felt that unit
16 was needed for a reliability issue on the grid. In
17 my experience, it doesn't go the other way,
18 meaning --

19 Q. Okay. So your understanding is that PJM
20 would come to you, you wouldn't go to PJM?

21 A. That's been my experience thus far, yes,
22 because that liability must-run is due to a
23 reliability requirement which would be -- the
24 decision would be made by PJM on what that

1 reliability requirement would be.

2 Q. Would that be triggered by the 90-day
3 notice that we just talked about?

4 A. I don't know.

5 Q. Okay. Looking through here. Most of
6 these questions have been -- have been asked; so
7 there will be a pause here while I just work my way
8 through until I get to one that hasn't been.

9 (Pause.)

10 Q. Do you have projections on how many
11 clock hours of generation you're expecting from each
12 of these nine units?

13 Actually let me start with a preliminary
14 question first. All these nine units are base units,
15 right?

16 A. Generally, yes. Conesville 5 and 6 are
17 more of an intermediate unit than a baseload unit, or
18 have that capability.

19 Q. Okay. Let me go through them then. So
20 Cardinal 1 is a base unit. And what would be the --
21 if you were running it as a base unit, how many clock
22 hours of generation would you expect to get out of
23 the -- out of the Cardinal plant?

24 A. Well, that -- as far as clock hours?

1 Q. Right. 8,760 clock hours in a year, and
2 you'd have some planned outages for maintenance. So
3 what would you expect the run time to be for the
4 Cardinal plant?

5 A. Again, the actual run time would be
6 based on market conditions, but based on unit
7 capability probably in the neighborhood of 7,500 to
8 8,000 hours a year.

9 Q. Do you have any idea how many hours
10 Cardinal ran last year, or the last year you have
11 data for?

12 A. I don't have that information in front
13 of me.

14 Q. Okay. Generally are there periods
15 during the year it doesn't run because it can't be
16 economically dispatched?

17 A. Not to my recollection for Cardinal
18 Unit 1, no.

19 Q. Okay. Let's march through the others.
20 How about the Conesville -- Conesville 4, 5, and 6?

21 A. Those units are different technology.
22 So, again, based on -- you know, it just depends on
23 what the market conditions are. There have been
24 periods this year where those three units have been

1 down and not required.

2 MR. NOURSE: Howard, this is Steve. I
3 just want to caution and remind the witness, if we're
4 getting into unit-specific performance for particular
5 periods and those kind of things, I don't know if
6 they're public or confidential. So I'll let him
7 indicate.

8 THE WITNESS: Specifics would be
9 confidential, yes.

10 MR. PETRICOFF: Okay.

11 THE WITNESS: They would be in NERC GADS
12 reports, which I don't believe are public.

13 MR. PETRICOFF: We'll delay this portion
14 of the conversation for the confidential section.
15 I'd rather be safe than go to the border on these.
16 That's fine. Thanks, Steve.

17 MR. NOURSE: Thank you.

18 BY MR. PETRICOFF:

19 Q. Once again, I'm going through questions
20 you've already been asked.

21 If you could turn to Page 9 of your
22 testimony. Look on Line 7 -- at Lines 6 and 7.
23 There you've testified, "Although these units are not
24 currently planned to be retired in the next few years

1 for economic or retirement reasons..."

2 Can you quantify the next few years? Is
3 that the three years or could it be five years? What
4 did you have in mind with next few?

5 A. In this context, it's three.

6 Q. Okay. And just following up then on the
7 earlier conversation, is that three because of the
8 three-year window that we get with the base residual
9 auction data?

10 A. Primarily at this point, yes, that's --
11 those are the only financial revenue markers we have.

12 Q. Okay. So I assume, then, that when we
13 talk about planning for the next few years, assuming
14 that PJM doesn't change its calendar for future base
15 residual auctions and internal auctions, we're
16 looking at a floating, then, three-year period?
17 You're always sort of -- you can look out 36 months?

18 A. Yes. I believe that's true.

19 Q. Okay. Now, let's go down to Line 9.
20 There you've testified that, "...as further explained
21 below the future market-based revenue uncertainty and
22 fixed cost structure make them vulnerable to early
23 retirement."

24 The term "early retirement "there, is

1 that what you've described earlier today as the
2 physical life of these plants?

3 A. No. Early retirement would -- in this
4 case or in this context within my testimony, is if
5 they would become economically unviable they could
6 get retired prematurely, well ahead of the asset
7 capability that was later in my testimony.

8 Q. Okay. Well, actually you're zeroing in
9 where I want to go. So when you're talking here
10 about early retirement, retirement normally would be
11 the physical estimates that you had previously told
12 us about, and early retirement would be something
13 before that?

14 A. Yes, generally.

15 Q. Okay. Now let's focus in on the term
16 "fixed cost structure." What do you consider to be
17 the fixed costs?

18 A. For the PPA units, you have labor costs,
19 you have certain maintenance and operations costs
20 that go into operating solid fuel units, material
21 handling costs so you can be prepared to run when the
22 market calls on a specific unit. So it's those
23 things that really don't change much from year to
24 year.

1 Q. Okay. And you'd have your investment
2 costs as well in the fixed, wouldn't you?

3 A. Yes.

4 Q. And then likewise, let's explore then
5 the term variable costs. What would be in your list
6 of variable costs?

7 A. The variable costs mainly consist of
8 fuel and other consumables that go in to produce a
9 kilowatt hour of output.

10 Q. Anything else that comes to mind in the
11 variable category?

12 A. Nothing that comes to mind right at the
13 moment, no.

14 Q. Okay. Generally would you run a plant
15 as long as you could cover your variable costs and
16 make -- cover your variable costs and make some
17 contribution to your sunk costs?

18 A. Well, there are a number of variables
19 that would go into that decision. So I can't answer
20 that directly just because of the complexity that
21 would be involved in developing an answer.

22 Q. Well, give me a few. What are the
23 things that you would have to consider before you
24 could answer that question?

1 A. Have to consider what the desired return
2 on an asset would be. So you'd have to be able to
3 cover all those fixed and variable costs, financing
4 costs, the desired return from the shareholders on
5 those assets, among other things.

6 Q. Okay. Now, if we turn to Page 11, and
7 on Lines 7 and 8 you say that, "The Affiliated PPA
8 units are on the economic 'bubble', meaning the
9 market conditions, as described by Company witness
10 Pearce, are not providing the necessary economic
11 signals for incremental investment in these units."

12 Now, I want to ask you -- first of all,
13 picking up on Steve's earlier observations, let me
14 know if this is something we should have in the
15 confidential section.

16 Do you have in mind a list of what
17 the -- what these incremental investments should be?
18 And if so, is this something we can talk about in the
19 public session?

20 A. I believe we can.

21 Q. Okay.

22 A. The incremental investments are simply,
23 you know, larger investments we forecasted, what we
24 think we need for environmental compliance and

1 offered those to Witness Pearce and did his analysis.
2 But whether or not those investments actually get
3 made are going to depend on -- absent the PPA
4 construct, are simply going to depend on, you know,
5 what the market looks like at the time.

6 Many of those specific projects like
7 that require many years to get in service. So a
8 large portion of that investment would have to be
9 made outside of the window in which we can see
10 revenue within the PJM market construct.

11 Q. So basically at this point the company
12 considers it too risky to make an investment of more
13 than -- more than 36 -- 36 months, or too risky to
14 make an investment that has a -- an amortization life
15 that's longer than 36 months?

16 A. Well, each project in each situation
17 gets scrutinized separately; so I can't make a
18 blanket statement to that end.

19 Q. Here's what I'm trying to drill down on.
20 Maybe you can -- you can help me.

21 It's true that we're going to be having
22 these three-year increments -- three-year
23 look-aheads, if you will, to know what the -- what
24 the capacity -- at least what the capacity revenues

1 are going to be for these units. When we're looking
2 at these incremental investments that we're talking
3 about on Line 9 on Page 11, do you -- can you look at
4 those and say, "Well, given these three years and
5 this investment, it calls for nine years, then we
6 couldn't make that investment," or is it, "Looking at
7 three years, do we have enough confidence that we
8 could make a nine-year amortization?"

9 Explain how that thinking would go on
10 and how long an amortization period you could
11 consider knowing that you only have three years
12 forward in capacity revenues.

13 A. Well, again, that decision would be
14 based on, you know, any number of variables for a
15 given project. But as we look at -- we can only see
16 three years ahead, and honestly we can only see the
17 capacity part of the payment three years ahead. The
18 energy continues to vary. So there's two pieces of
19 revenue that we need to estimate over a period of
20 time. And the further -- the further out we go,
21 there's -- you know, and the more uncertainty there
22 is, then the less likelihood an investment would get
23 made just due to that uncertainty.

24 Q. Okay. But at this point, is it fair to

1 say that when you're -- when you're looking out, you
2 wouldn't rule out an investment that may have an
3 amortization period longer than three years just
4 because you only have three years of capacity revenue
5 pricing?

6 A. I would say it's fair to say that not
7 every project would get ruled out on that basis.

8 Q. Okay.

9 A. But based on my experience, many would.

10 Q. Okay. Is it more appropriate for me to
11 ask about the ones that are -- that are critical and
12 the ones that get ruled out in the confidential
13 section, or is that something that we can talk about
14 now?

15 A. That's probably best left to the
16 confidential section, because I just don't -- I don't
17 know the specific questions that you're going to ask,
18 but also I don't have any analysis in front of me
19 from AEP Generation Resources' perspective that says
20 what projects are going to be included in the future
21 and what aren't.

22 Q. Okay. When we get to the confidential
23 section, though, could I ask, you know, generally
24 for, you know, a 40-year-old coal plant or

1 50-year-old coal plant, you know, what would be the
2 ones that you would expect -- similar to, like, in a
3 car, you know, you have a drive belt that after, you
4 know, 100,000 miles you're probably going to have to
5 replace, are there, like, rules of thumb like that
6 for fossil fuel plants?

7 A. I would say no, there aren't rules of
8 thumb. There are so many specifics that go into the
9 type of investment and the amount of time it would
10 take to actually engineer that investment -- or,
11 engineer the solution, how long it would take, there
12 just -- there are numerous variables that go into
13 that. So without talking about specifics, and even
14 to that extent we'd have to get in and do research on
15 those particular projects. So there are no rules of
16 thumb that we use --

17 Q. Okay.

18 A. -- that I'm aware of.

19 Q. Okay. Well, I think at this point those
20 are all the public questions that I have. Thank you
21 very much, Mr. Thomas.

22 A. Thank you.

23 MR. NOURSE: Who else has questions?

24 MR. DARR: This is Frank Darr.

1 MR. NOURSE: Hey, Frank.

2 MR. DARR: It's 12:00 o'clock. I've
3 probably got about 15 minutes here. Do you want to
4 do that?

5 MR. NOURSE: Sure.

6 MR. DARR: And then make a decision
7 about whether we break for lunch?

8 MR. NOURSE: Yep.

9 MR. DARR: Okay.

10 - - -

11 CROSS-EXAMINATION

12 BY MR. DARR:

13 Q. Mr. Thomas, my name's Frank Darr. I'm
14 with Industrial Energy Users of Ohio in this case.
15 And I want to follow up on a couple of things, and
16 I've got just one or two areas I want to delve into
17 that I don't think have been covered before.

18 With regard to the operating agreements
19 for the jointly owned plants which are operated not
20 by AEP Ohio, have those operating agreements been
21 filed with the Federal Energy Regulatory Commission?

22 A. I don't know.

23 Q. With regard to those operating
24 agreements in general, could you state whether or not

1 there are cost-sharing arrangements under those
2 agreements?

3 A. Under the current agreements for the
4 co-owned units, the costs and benefits are shared
5 based on ownership share.

6 Q. Is that also true for the Stuart units?

7 A. Yes.

8 Q. Zimmer unit?

9 A. Yes.

10 Q. Are the costs and benefits reflected in
11 those operating agreements also reflected in the
12 proposed PPA that's being considered in this case?

13 A. Yes. I believe they are.

14 Q. How is that reflected in the PPA?

15 A. The cost projections for those co-owned
16 units that we have from the co-owners have been
17 provided to Witness Pearce, and then also our
18 megawatt share of the output of those units I believe
19 has been included in any revenue for capacity and
20 energy. So I believe the cost side has been
21 included, and then whatever the forecasted revenue
22 side is within Mr. Pearce's model has been included.

23 Q. With regard to the cost side, and let's
24 take Stuart as an example, is that a cost-plus

1 agreement?

2 A. To my recollection, no. It's a straight
3 cost agreement, and then each operator -- and we have
4 an agreed-to methodology where each operator charges
5 general and administrative type costs to be able to
6 operate that unit on behalf of the co-owners.

7 Q. And what is the arrangement on the cost
8 side for the Zimmer unit?

9 A. To my recollection, it's the same.

10 Q. And would that also -- you may have
11 already answered this, but I want to make sure I've
12 got it covered: Is that also true with regard to the
13 Conesville unit that's co-owned jointly with AES
14 and -- is jointly owned? Let's leave it at that.

15 A. Also with Dynegy, yes. We get our
16 ownership share of the output and we also take our
17 ownership share of the cost.

18 Q. And then any return is based on what you
19 would secure for that power in the market?

20 A. Yes. The revenue we would get is, yes,
21 based off what we'd get from the market for capacity
22 and energy.

23 Q. Again, that would be true with regard to
24 the other plants -- the Stuart plants and the Zimmer

1 plant?

2 A. Yes. That is correct.

3 Q. Are there any activities similar to the
4 lean activities that you described taking place at
5 AEP Generation Resources also taking place at either
6 Stuart or Zimmer?

7 A. Not to my knowledge.

8 Q. You indicate in your testimony at
9 Page 12, starting at Line 1, and going to page --
10 Line 10 that there would be a change or a potential
11 change in the investment decision with regard to the
12 PPA units if the rider was or was not approved. Can
13 you explain how that decision-making process would
14 change?

15 A. From AEP Generation Resources'
16 perspective, it would change in that we would be able
17 to take a longer-term view because we would have a
18 FERC-regulated agreement, in this case with AEP Ohio,
19 and AEP Ohio would have input into what decisions
20 were made over a period of time. So we would provide
21 options based on what we think is prudent and
22 reasonable, and then ultimately AEP Ohio would decide
23 whether or not they agreed with those investments and
24 gave approval to make them or wouldn't.

1 It's similar to what we would do with
2 other cost of service or cost -- or, formula base
3 rate contracts under FERC jurisdiction, just allows
4 us to --

5 Q. Correct me if I'm wrong, but let me see
6 if I can summarize this: If Commission approved as
7 proposed the PPA and the rider, your investment
8 horizon would change. Is that fair to say?

9 A. Yes. I think that's fair to say.

10 Q. And because that investment horizon had
11 changed, you would be able to address investments
12 that have a life longer than three years?

13 A. Yes. Generally that is correct.

14 Q. And looking at the opposite of that, I
15 believe it's your testimony that because the
16 investment horizon, at least for capacity, is three
17 years, some of the investment decisions may not be
18 made if the PPA and the PPA rider are not approved;
19 is that fair to say?

20 A. Yes. I believe that's fair to say.

21 Q. Okay. When I say investment decisions
22 may not be made, do you understand that to mean that
23 the company may choose not to make an investment as a
24 result of the fact that it's -- the investment

1 horizon is only three years?

2 A. Yes. That is my understanding, that we
3 could make a decision not to make an investment due
4 to the short nature of the market that we operate in
5 today.

6 Q. Turning to your testimony at Page 14,
7 beginning at line -- actually it carries over from
8 Page 13 and goes on to Page 14, you indicate that
9 it's unlikely to close -- that these plants are
10 unlikely to close due to the environmental rules if
11 the rider is granted; is that correct?

12 A. Yes. That is correct.

13 Q. Now, at the time that you made this
14 statement, the environmental rules under the Clean
15 Power Plan had not been released; is that fair?

16 A. Yeah. I believe they had not been
17 finalized. There may have been a draft rule out
18 there, but I don't believe --

19 Q. Draft rule came out in 2014, final rule
20 came out in August of 2015, correct?

21 A. I believe that's correct, yes.

22 Q. And you filed your testimony in May,
23 your amended testimony?

24 A. Yes. That is correct.

1 Q. After that time, has there been any
2 attempt on the part of Generation Resources to
3 determine whether or not the new environmental
4 requirements for the final rule issued in August 2015
5 will affect the decision to continue to operate the
6 plants that AEP Ohio -- or, not AEP Ohio -- AEP
7 Generation Resources operates?

8 A. As is in the case when any new rule
9 comes out, we will wait for the analysis to be done
10 by Mr. McManus's group and our technical experts to
11 see, you know, what the requirements could be.

12 My understanding, and it's at a high
13 level, of the Clean Power Plan, there are different
14 options that can be utilized, and the Federal EPA is
15 going to put forth some guidelines, and then each
16 state, in this case Ohio, has to come up with its own
17 plan that would meet the federal rule or the federal
18 goals. And my understanding, that's going to be a
19 fairly extended period of time before the states have
20 their final rule. So there's just a lot of --
21 there's a lot of unknowns at this point.

22 But we would wait for Witness McManus
23 and the experts in our Shared Services organization
24 to help clarify and provide guidance over time before

1 we could do any meaningful analysis.

2 Q. So is it fair to say at this point, at
3 least from the point of view of AEP Generation
4 Resources, there's been no decision as to whether or
5 not plants that you're proposing to include in the
6 PPA can remain open under the new Clean Power Plan
7 rules?

8 A. To my knowledge, we in AEP Generation
9 Resources have not completed any studies to that
10 effect, no.

11 Q. And based on what you just said, it's
12 unlikely that we'd be able to make a decision on
13 that -- or you would be able to make a decision on
14 that until you see the State plan and whether or not
15 the State plan is acceptable to the EPA?

16 A. Again, I would defer to the judgment of
17 Witness McManus and his organization to be able to
18 help provide guidance on that like we have
19 historically.

20 Q. Like Mr. Petricoff, I'm going through
21 and just making sure that I've completed my notes.
22 Just give me a moment here.

23 (Pause.)

24 Q. I may have a couple questions in the

1 closed section, but that's all I have for right now.

2 Thank you.

3 MR. NOURSE: So what else -- who else do
4 we have for the public session, because it would be
5 nice just to finish that before lunch?

6 MR. VICKERS: This is Justin Vickers.

7 - - -

8 CROSS-EXAMINATION

9 BY MR. VICKERS:

10 Q. This is Justin Vickers. Good morning,
11 Mr. Thomas, or afternoon now, my name is Justin
12 Vickers with the Environmental Law and Policy Center.
13 Like others, I will try to avoid duplicate questions
14 here.

15 Just a couple things. Are there any
16 environmental -- pending environmental rules that
17 were not incorporated in the compliance cost
18 estimates for the 2015 to 2024 projections that you
19 provided to Mr. Pearce -- Dr. Pearce?

20 A. Again, like we just talked, with the
21 exception of the Clean Power Plan, everything that we
22 know of to this point has been included in the
23 forecast.

24 Q. And does that include the ozone NOx

1 proposal, which I know is only in a proposal phase,
2 but did you do any projections for that?

3 A. I would have to defer to Witness McManus
4 on that.

5 Q. And CSAPR Phase 2?

6 A. Again, have to defer to Witness McManus
7 on that.

8 Q. Can you look at Page 11, Line 7 of your
9 testimony?

10 A. I'm sorry. What page was that again?

11 Q. Sorry, Page 11, Line 7.

12 A. Okay.

13 Q. And you talk about the affiliated PPA
14 units are on the economic bubble. Are there -- in
15 your opinion, are other Ohio coal plants on the
16 economic bubble as well?

17 A. Well, there are numerous factors that
18 would go in to determine that. So I can't speak for
19 any other operators or owners of assets in Ohio.

20 Q. So let's -- if we can propose a
21 hypothetical here, and let's say there are other
22 plants in Ohio that are on the economic bubble. I
23 mean, do you think for the policy reasons you have
24 here, including job loss and reliability issues and

1 things like that, I mean, should the Commission also
2 be considering keeping those plants opened as well?

3 A. I guess I would agree. If they are
4 deemed to be on the economic bubble by the owners of
5 those specific assets in this hypothetical situation,
6 I would assume the Commission would be interested in
7 those as well.

8 Q. And I apologize if we went through this
9 before, I didn't get the call-in number until a
10 little late with the change, but if I could just ask
11 you a couple questions about the PJM capacity
12 auction, and specifically the newly formulated and
13 FERC-approved capacity performance product. Are you
14 familiar with that change?

15 A. At a high level, I'm familiar with that
16 change, yes.

17 Q. Do you know -- do you have any sense of
18 whether the units that would be covered by the PPAs
19 are in compliance with the capacity performance
20 product requirements?

21 A. Based on my knowledge, I believe all of
22 them would be able to participate in that market,
23 yes.

24 Q. Have you done any analysis for the

1 potential for these plants to be assessed capacity
2 performance penalties or noncompliance if the bids
3 were accepted and then didn't show up like they were
4 supposed to?

5 A. To my knowledge, I don't know that there
6 have been any studies done. I mean, each unit has
7 its own characteristics, but based on our experience
8 if you provide proper investments over time the units
9 will perform as they have over the last couple of
10 decades, which has been pretty reliably.

11 Q. I'm just going to check my notes here
12 and see if there's anything else that hasn't already
13 been covered.

14 So you've talked a little bit about
15 market signals and market prices. If the affiliated
16 PPA units were to retire, would there then be a price
17 signal, a market signal to build additional
18 generation to replace those units?

19 A. I'm not a market expert; so I'd have to
20 defer to -- I'm not sure which witness, maybe Witness
21 Bletzacker that does more of a fundamental forecast
22 to look at supply and demand over time. It's just
23 not my area of expertise.

24 Q. Sure. I think that's all the questions

1 I have. Thank you.

2 MR. NOURSE: Anyone else?

3 (No response.)

4 MR. NOURSE: Okay. Well, let's take a
5 lunch break, and I guess we'll start the confidential
6 depo at 1:00 o'clock.

7 I have a -- an e-mail I'm about ready to
8 send out for the telephone bridge, the confidential
9 session. I have Howard Petricoff, Tony Mendoza, Matt
10 Pritchard, Frank Darr, Rebecca Hussey, Justin
11 Vickers. Is there anyone else that's on the call
12 that believes they should receive the confidential
13 dial-in?

14 (No response.)

15 MR. NOURSE: Okay. Well, I'll send that
16 out, and we'll resume at 1:00 o'clock on the new
17 number. Thank you.

18 (Luncheon recess taken.)

19 (Confidential Portion Excerpted.)

20 - - -

21

22

23

24

1 State of Ohio :
2 County of : SS:
3 :

4 I, Toby L. Thomas, do hereby certify
5 that I have read the foregoing transcript of my
6 deposition given on Tuesday, September 15, 2015; that
7 together with the correction page attached hereto
8 noting changes in form or substance, if any, it is
9 true and correct.

10 _____
11 Toby L. Thomas

12 I do hereby certify that the foregoing
13 transcript of the deposition of Toby L. Thomas was
14 submitted to the witness for reading and signing;
15 that after he had stated to the undersigned Notary
16 Public that he had read and examined his deposition,
17 he signed the same in my presence on the _____ day of
18 _____, 2015.

19 _____
20 Notary Public

21 My commission expires _____, _____.
22 - - -
23
24

1 CERTIFICATE

2 State of Ohio :
3 County of Muskingum : SS:

4 I, Carolyn D. Ross, Registered
5 Professional Reporter and Notary Public in and for
6 the State of Ohio, duly commissioned and qualified,
7 certify that the within named Toby L. Thomas was by
8 me duly sworn to testify to the whole truth in the
9 cause aforesaid; that the testimony was taken down by
10 me in stenotype in the presence of said witness,
11 afterwards transcribed upon a computer; that the
12 foregoing is a true and correct transcript of the
13 testimony given by said witness taken at the time and
14 place in the foregoing caption specified and
15 completed without adjournment.

16 I certify that I am not a relative,
17 employee, or attorney of any of the parties hereto,
18 or of any attorney or counsel employed by the
19 parties, or financially interested in the action.

20 IN WITNESS WHEREOF, I have hereunto set
21 my hand and affixed my seal of office at Columbus,
22 Ohio, on this 18th day of September, 2015.

23 _____
24 Carolyn D. Ross, Registered
Professional Reporter and
Notary Public in and for the
State of Ohio.

My commission expires April 3, 2019.
(CDR-79218)

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September 18, 2015

Toby L. Thomas
c/o Steve Nourse
American Electric Power
1 Riverside Plaza
Columbus, Ohio 43215

Re: In the Matter of Ohio Power Company 14-1693-EL-RDR & 14-1694-EL-AAM

Dear Mr. Toby Thomas:

Enclosed is the transcript of your deposition taken on September 15, 2015, for examination pursuant to 4901-1-21(K) of the Ohio Rules of Practice before the Public Utilities Commission of Ohio.

The rule requires that your deposition be read by or to you. Any changes in form or substance which you desire to make shall be entered by me with a statement of the reasons given for making them.

If your deposition is not signed within 10 days of its submission to you, I am required to sign it and state the fact of the refusal to sign with the reason, if any, given therefor; and the deposition may then be used as though signed, unless on a motion to suppress the Commission holds that the reasons given for the refusal to sign require rejection of the deposition in whole or in part. By copy of this letter I am advising the attorneys in the case of the submission of your deposition.

Please have your deposition signed in the presence of a Notary Public and return to us by certified mail.

Thank you for your promptness in this matter.

Sincerely,

ARMSTRONG & OKEY, INC.

Cc: Ms. Williams

1 State of Ohio :
2 County of : SS:
3

4 I, Toby L. Thomas, do hereby certify
5 that I have read the foregoing transcript of my
6 deposition given on Tuesday, September 15, 2015; that
7 together with the correction page attached hereto
8 noting changes in form or substance, if any, it is
9 true and correct.

10 _____
11 Toby L. Thomas

12 I do hereby certify that the foregoing
13 transcript of the deposition of Toby L. Thomas was
14 submitted to the witness for reading and signing;
15 that after he had stated to the undersigned Notary
16 Public that he had read and examined his deposition,
17 he signed the same in my presence on the _____ day of
18 _____, 2015.

19 _____
20 Notary Public

21 My commission expires _____, _____.
22 - - -
23
24

ERRATA SHEET

Please do not write on the transcript. Any changes in form or substance you desire to make should be entered upon this sheet.

TO THE REPORTER:

I have read the entire transcript of my deposition taken on the _____ day of _____, _____, or the same has been read to me. I request that the following changes be entered upon the record for the reasons indicated. I have signed my name to the signature page and authorize you to attach the same to the original transcript.

Page	Line	Change	Reason

Date _____ Signature: _____

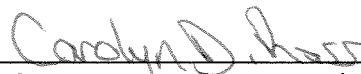
1 CERTIFICATE

2 State of Ohio :
3 County of Muskingum : SS:

4 I, Carolyn D. Ross, Registered
5 Professional Reporter and Notary Public in and for
6 the State of Ohio, duly commissioned and qualified,
7 certify that the within named Toby L. Thomas was by
8 me duly sworn to testify to the whole truth in the
9 cause aforesaid; that the testimony was taken down by
10 me in stenotype in the presence of said witness,
11 afterwards transcribed upon a computer; that the
12 foregoing is a true and correct transcript of the
13 testimony given by said witness taken at the time and
14 place in the foregoing caption specified and
15 completed without adjournment.

16 I certify that I am not a relative,
17 employee, or attorney of any of the parties hereto,
18 or of any attorney or counsel employed by the
19 parties, or financially interested in the action.

20 IN WITNESS WHEREOF, I have hereunto set
21 my hand and affixed my seal of office at Columbus,
22 Ohio, on this 18th day of September, 2015.

23 
24 Carolyn D. Ross, Registered
Professional Reporter and
Notary Public in and for the
State of Ohio.



My commission expires April 3, 2019.

(CDR-79218)

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/23/2015 12:30:08 AM

in

Case No(s). 14-1694-EL-AAM, 14-1693-EL-RDR

Summary: Deposition of Toby L. Thomas electronically filed by Mr. Tony G. Mendoza on behalf of Sierra Club