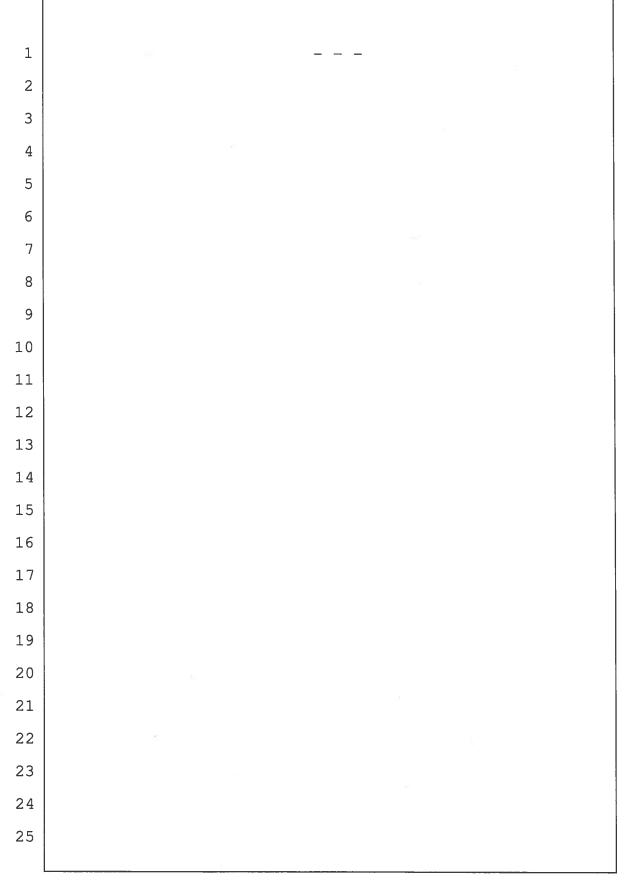
BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO \_ \_ \_ In the Matter of the : Application Seeking Approval of Ohio Power : Company's Proposal to : Case No. 14-1693-EL-RDR Enter into an Affiliate : Power Purchase Agreement : for Inclusion in the Power: Purchase Agreement Rider. : In the Matter of the Application of Ohio Power : Company for Approval of : Case No. 14-1694-EL-AAM Certain Accounting • Authority. PROCEEDINGS before Ms. Greta See and Ms. Sarah Parrot, Attorney Examiners, at the Public Utilities Commission of Ohio, 180 East Broad Street, Room 11-D, Columbus, Ohio, called at 9:00 a.m. on Thursday, October 1, 2015. VOLUME IV REDACTED PUBLIC VERSION \_ \_ \_ ARMSTRONG & OKEY, INC. 222 East Town Street, Second Floor Columbus, Ohio 43215-5201 (614) 224-9481 - (800) 223-9481

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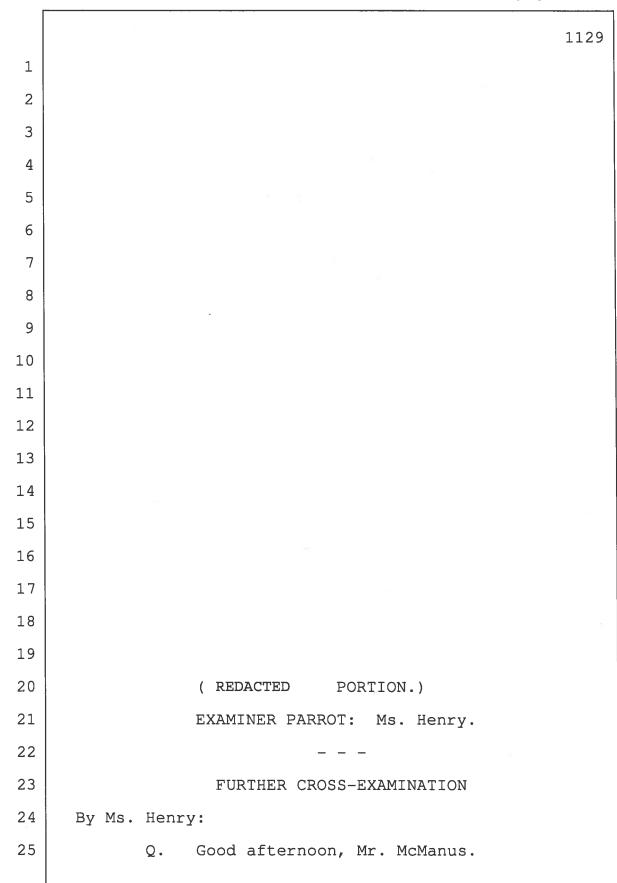
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1130 Good afternoon. 1 Α. 2 Q. So much has changed since we spoke 3 earlier. Α. It has. Are you as excited about the 4 5 ozone standard as we are? (Laughter.) 6 7 Q. You know, I love lame duck Obama; do you? Α. Pardon? 8 9 0. I love lame duck Obama; do you? I was just figuring out what exhibit 10 11 number we're up to. I am going to introduce Sierra Club Exhibit 14 Confidential. I'm glad to know that 12 13 you still have a sense of humor. MS. HENRY: So I would like to mark as 14 Confidential Sierra Club Exhibit 14 a copy of 15 16 AEP Ohio's supplemental response to Sierra Club 17 interrogatory 2-52 and a Supplemental Confidential Attachment 1-CCR Costs. 18 EXAMINER PARROT: So marked. 19 20 (EXHIBIT MARKED FOR IDENTIFICATION.) 21 MS. HENRY: May I approach? 22 EXAMINER PARROT: You may. So please refer, sir -- do you want a 23 0. 24 second, Mr. McManus? 25 Α. Okay.

	1131
1	Q. So please refer to Sierra Club
2	interrogatory 2-52 Supplement and the supplemental
3	confidential attachments. So the initial response to
4	this interrogatory was that there were no studies or
5	analyses that exist.
6	Sorry, let me step back for a second.
7	Is it correct that the request asked
8	AEP Ohio to "Identify all studies, analyses, or other
9	documents estimating the capital, fixed O&M, and
10	variable O&M costs for the coal units to comply with
11	the CCR Rule"; is that correct?
12	A. That's what it has in item B, yes.
13	Q. Okay. And then in the initial response
14	that was provided by the company does it state that
15	no such study exists?
16	A. Yes.
17	Q. And then AEP Ohio supplemented its
18	response on September 24th, 2015, correct?
19	A. That's correct.
20	Q. Okay. So can we assume that these
21	studies were created between the initial response and
22	the supplemental response?
23	A. No, I wouldn't assume that.
24	Q. What?
25	A. I would not assume that.
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1132
            Q.
                  Okay. Do you know when they were done,
1
     sir?
2
3
                  There are dates on some of the documents
             Α.
4
     that provide that indication. And the dates vary.
5
                  So for the PowerPoint presentation, that
             0.
     was from 2013, correct?
6
7
             Α.
                  That's correct.
                  Okay. So was -- can you refresh my
8
             Q.
      memory, was the CCR rule finalized in 2013?
9
10
             Α.
                  No, it was not.
                  So this is based on the -- this is based
11
             0.
12
      on the proposal, on the proposal CCR.
13
             Α.
                  Yeah. Which documents specifically are
14
      you referring to?
15
                  Well, you said there was a date, correct,
             0.
      and there's a PowerPoint presentation which is
16
      entitled "Kyger Creek CCR and ELG Projects." Do you
17
      see that, sir?
18
19
                  Yes.
             Α.
                  And the date on that is what, sir?
20
             0.
                  November 7th, 2013.
21
             Α.
                  Okay. And was -- my question was, was
22
             Ο.
      the CCR rule and/or the ELG rule finalized by that
23
24
      date?
25
             A. No, they were not.
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1133 So this is based on the proposed -- so 1 Ο. 2 this cost projection I'm assuming is based on the proposed rule, sir? 3 Α. Yes, it would be. 4 5 Ο. Okay. Just give me one second. 6 Okay. Now, in your testimony you 7 identified the CCR rule could have a potential impact on the Kyger Creek units, the Stuart units, and the 8 9 Cardinal units, correct? And I can refer you to your 10 direct testimony on page 8, lines 11 through 13. Is 11 that correct? That's correct. 12 Α. 13 Okay. And this supplemental confidential Ο. 14 attachment, it provides an analysis that discusses I 15 believe Cardinal, Kyger Creek, and Conesville; am I 16 correct? 17 Α. Can you point to a specific place? 18 Sure. Well, if I look on the very first Q. 19 page of the supplement, I believe it lists the 20 facilities that are included in this document, if I'm 21 correct, and I believe it lists pages 2 through 7, 22 cover civil engineering department; 8 through 9 says 23 Mitchell dry ash fly ash conversion; page 10, Amos unit dry ash conversion; page 12, Cardinal landfill 24 25 options file; pages 13 through 22, Kyger Creek

CCR/ELG, correct? 1 2 Α. Yes. So this first document would cover 3 0. Cardinal and Kyger Creek if I'm understanding this 4 5 correct. 6 Α. What the document provides -- this came 7 out of the deposition that I had and the discussion 8 of, you know, what information we might have, and recognize that, you know, we may not have interpreted 9 10 exactly what was being asked for in this case, 11 compliance with the CCR rule when it's a proposed 12 rule, we said no studies exist. 13 And also in the process that we used and 14 I described earlier with environmental engineering 15 projects, we don't always necessarily produce what 16 you would call a bound study. We look at things, we may provide documents like this, we may draw on our 17 18 experience at implementing projects at other plants that may be needed for the CCR rule or the ELG rule. 19

So the document here related to Mitchell and to Amos dry fly ash conversion. Those were projects that we actually implemented and so having that experience is useful and formed what may be needed at Cardinal for dry fly ash conversion. That's why this set of documents was put together.

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## 1134

It kind of informs, you know, how we came up with cost estimates for the proposed rules at the units that we thought would be affected by different aspects based in part on our experience in implementing similar projects at other AEP units. 0. So I just want to explain, we're trying -- as the Sierra Club, we're just trying to make sure that the costs that were presented by Mr. Thomas are reflective of the compliance project that you said are required and we're trying to make sure that everything -- that the cost assumptions are reasonable. So I'm just trying to track everything to their source documents and see what we have in the record. Is that okay with you, sir? I understand. Α. Yeah. Okay. So my question to you was, this 0. document covers, if I'm reading it correctly, Kyger

18 Creek and Cardinal, correct?

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Again, it has information in it that may 19 Α. 20 be relevant to others. So the first document is 21 bottom ash pond complex retrofit, and it talks about 22 how you might reline a bottom ash pond. So we do 23 have bottom ash pond reline projects in our listed 24 projects that would be relevant to those projects. 25 We do have Cardinal fly ash conversion that would be

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1135

	1136
1	relevant to that based on our experience at Mitchell
2	and Amos. And, you know, for Kyger Creek we have
3	relevant experience for both fly ash conversion,
4	wastewater treatment that would be relevant to what
5	Kyger might have to do under in this case the CCR and
6	the ELG rule.
7	Q. Can you point to any analyses about the
8	Stuart facility and then analysis of what's going to
9	be required there and how those cost estimates were
10	derived?
11	A. For the Stuart facility?
12	Q. Yes, sir.
13	A. No. I indicated before, Dayton Power and
14	Light prepares those analyses, they share their
15	process and oversight process that the owners have
16	and so we have information on their budgetary
17	estimates, but they develop.
18	Q. And if I remember correctly from your
19	deposition, when we showed you the estimates, you
20	said that you had just seen those estimates for the
21	first time the week of your deposition, correct?
22	A. Yes.
23	Q. Okay. So there's no documentation in the
24	record of what's the basis for those estimates,
25	correct?

	1137
1	A. That seems to be correct. You can talk
2	to Mr. Thomas about that process and how the
3	information is shared and then what we do to review
4	it; he's more familiar with the ownership process.
5	Q. Okay. Thanks.
6	Now let's refer to the PowerPoint
7	okay. So let's take if you look at the document
8	that I just handed you, which is Sierra Club Exhibit
9	14, and you go to page 4 of the first attachment.
10	Are you there, sir?
11	A. The page numbered 4 of 22; is that what
12	you're referring to?
13	Q. Yes, sir.
14	A. Okay. I wanted to make sure I'm on the
15	right page.
16	Q. Yeah. And then it looks like there's a
17	total cost to reline the Conesville pond. Do you see
18	that?
19	A. Yes.
20	Q. What's the estimate there, sir?
21	A. Appears to be a second a second se
22	Q. Now let's go back to confidential Sierra
23	Club Exhibit 7.
24	A. Okay.
25	Q. And what is the estimate there?

	1138
1	A. So we're on the long spreadsheet on the
2	exhibit for Conesville Plant?
3	Q. Uh-huh.
4	A. And there is a line there for Conesville
5	units 5-6 bottom ash pond reline that looks to be
6	and there's a line for Conesville 4,
7	bottom ash pond reline, it looks to be <b>service and a service and a serv</b>
8	So
9	Q. Now, this is now, that's for
10	Conesville. Now, this is just a table that was
11	created. Do you see where's the analysis for the
12	Conesville estimate? Because if you look on the
13	cover page, it talks about how they're going to look
14	at these certain facilities, but then when you get
15	into it do you know how those numbers are derived?
16	A. I don't know specifically how they're
17	derived. I didn't prepare these documents. These
18	are prepared by either our engineering department or
19	our projects department. But the bottom, bottom ash
20	pond complex retrofit as I understand it is intended
21	to explain what's involved in retrofitting the bottom
22	ash pond, relining it, in a general sense and then
23	that information and that knowledge would be used on
24	a plant-by-plant basis looking at each specific
25	bottom ash pond, the size of that pond, and what

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1139 might be involved in retrofitting. 1 So applying the general knowledge that 2 engineering has on how to execute it to specific 3 plant and pond with the size of that pond and then 4 5 deriving a cost associated with this. 6 Do I see any analysis for if groundwater Q. 7 contamination is found and how we would address that? 8 Α. No. And we discussed this morning, we 9 did not have that because we're early in the stage of the whole groundwater monitoring process. 10 So those costs aren't reflected in Sierra 11 Q. Club Confidential Exhibit 7, correct? 12 13 Α. We don't know if there will be any costs. 14 Ο. Okay. Let's go to --15 MS. HENRY: I'd like to mark as Sierra Club Exhibit 15, which is a copy of AEP Ohio's 16 17 response to OCC -- no. No. Sorry. 18 AEP Ohio's supplemental response to Sierra Club interrogatory 2-53 and supplemental 19 confidential Attachment 1-CCR Costs. 20 EXAMINER PARROT: So marked. 21 22 MR. SATTERWHITE: We're marking that as 23 confidential in the name, right? 24 EXAMINER PARROT: Yes. 25 MR. SATTERWHITE: Thank you.

	1140
1	MS. HENRY: Confidential Sierra Club
2	Exhibit 15, is that acceptable?
3	MR. SATTERWHITE: Great.
4	(EXHIBIT MARKED FOR IDENTIFICATION.)
5	Q. Okay, so
6	MR. SATTERWHITE: Can I ask a question
7	first? Did you say whether this is an excerpt or
8	MS. HENRY: Yeah, I actually think I
9	haven't quite introduced it quite yet. Is that okay?
10	MR. SATTERWHITE: Yes.
11	MS. HENRY: Sorry. So I just marked as
12	Confidential Sierra Club Exhibit 15 a copy of
13	AEP Ohio's supplemental response to Sierra Club
14	interrogatory 2-53 and Supplement Attachment 1-CCR
15	costs and of the attachment, the attachment was 147
16	pages and I just produced the first 19 pages of it.
17	Q. Can you please refer to the initial
18	response to this interrogatory, Mr. McManus.
19	A. Okay.
20	Q. And is it correct that we asked AEP Ohio
21	to identify all studies, analyses and other documents
22	estimating the capital, fixed O&M, variable costs
23	associated with the Cardinal and the Stuart units'
24	compliance with the proposed ELG rule, correct?
25	A. That's correct.

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	1141
1	Q. And then when we got the initial
2	response, the response was: "No such studies are
3	available"; is that correct?
4	A. That's correct.
5	Q. Okay. And then AEP Ohio supplemented its
6	responses on September 24th, 2015, after your
7	deposition, correct?
8	A. That's correct.
9	Q. Okay. And this is what was provided to
10	us after your deposition?
11	A. Yes.
12	Q. So did you pull this document as
13	responsive?
14	A. After the deposition when we had the
15	conversation about the specific data requests and how
16	we responded and realized and better realized what
17	was being asked compared to how we initially
18	responded, I got together with the representatives
19	from our projects organization and our engineering
20	organization to talk about, with this better
21	understanding, what type of information can we
22	provide. That I think was the day after the
23	deposition.
24	So I was involved with the initial
25	discussion on what type of information we should try

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1142 1 and look for and provide in the supplement. 2 Ο. So if we look at the first attachment, 3 it's involving Kyger Creek; is that correct? Again, 4 if you look at it, it kind of runs through the 5 facilities on the first page, is that correct, sir? Which page number? That would help. 6 Α. 7 Ο. One of 172. Okay. And so -- and you're asking about 8 Α. the first item listed there? 9 So you identified certain plants that 10 Ο. would have to comply with the ELG rule; is that 11 12 correct? 13 Α. Yes. And I'm asking you of those PPA units, of 14 Ο. 15 the PPA units how many does this analysis on the 16 cover page say that it covers? Of the PPA units. 17 Α. On page 1. Of 172. And I believe it lists -- it 18 Ο. 19 appears to be the table of contents. I'm assuming 20 these are your documents; you use these all the time? 21 This is something you're familiar with. 22 Α. These are documents prepared by our projects organization so I'm familiar, again, with 23 24 the process that we use, environmental engineering 25 projects to understand requirements, identify

	1143
1	technologies, develop costs. This is what I expect
2	to see the projects organization to be preparing as
3	they're looking at technologies which might be
4	applicable under a rule, in this case the ELG rule.
5	Q. Okay.
6	A. But if okay. Go ahead.
7	Q. Am I wrong, this is not a table of
8	contents of the facilities that are looked at?
9	A. The table of contents refers to the
10	documents that are attached and so the first one
11	which you see there is Flint Creek
12	Q. Yes.
13	A leachate. Flint Creek plant is in
14	Arkansas.
15	Q. Correct.
16	A. So our projects organization developed a
17	project to do a leachate treatment system at the
18	Flint Creek plant. So we had that information, we
19	had that knowledge. When we look at the ELG rule,
20	there may be a need for leachate treatment systems in
21	the ELG rule so we can use the experience at Flint
22	Creek to help inform and develop cost estimates for
23	plants that may have to put leachate treatment in
24	because of the ELG rule, in this case, you know, some
25	of the plants in this proceeding.

	1144
1	Q. I guess my question, let me be more
2	direct, do you see any analyses I mean, does this
3	table of content indicate there would be any analyses
4	for the Stuart or Zimmer plants?
5	A. No.
6	Q. Let's turn to you also provided a
7	PowerPoint presentation which we were looking at
8	earlier. Do you remember that? It's attached to
9	this one as well. The one that was produced and
10	covered Kyger Creek.
11	A. Yes.
12	Q. Okay. I guess the oh, so it's labeled
13	through 172 but I'm assuming each is a separate
14	document. Is that how it's done? They don't seem to
15	flow together; is that correct?
16	MR. SATTERWHITE: Would you like me to
17	clarify how we put it together? Would that help?
18	MS. HENRY: Well, I mean, Mr. McManus
19	produced it. I assume Mr. McManus could describe it.
20	MR. SATTERWHITE: I think he's told you
21	but you seemed confused so I wanted to offer since I
22	helped put this together and send it, how it was put
23	together, I offered.
24	MS. HENRY: I'll let Mr. McManus answer.
25	MR. SATTERWHITE: Okay.

	1145
1	A. So what was the question again?
2	Q. I mean, is this just a compilation of
3	various documents? Is that what this is? I mean,
4	because there's a PowerPoint presentation kind of
5	stuck in the middle and then it kind of goes to
6	another page. Is this just a compilation of various
7	documents that you put together?
8	A. That's essentially what it is. And the
9	cover page provides sort of that guide, what pages
10	relate to what specific executive summary,
11	presentation, matrix, and so if you look at the page
12	numbers on the cover page, match them with the page
13	numbers in the top right corner, then you can
14	distinguish one document from another.
15	Q. Okay. Let's go to page 18 of 172.
16	A. Okay.
17	Q. Do you see there's at the bottom, there's
18	a thing there's it says "Assumptions" and then
19	there's a list for different assumptions? Do you see
20	that, sir?
21	A. Yes, I do.
22	Q. And then does say that for the ELG and
23	assumes that option 4a is that the estimates are
24	based on option 4a; is that correct?
25	A. Yes, that's what it says.

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So we

1 Q. And option 4a was more lenient than 2 option 4 which the final rule selected, correct? Again, as I said this morning, I'm not 3 Α. sure that level of detail on the ELG rule, it just 4 came out yesterday afternoon or mid-day yesterday. 5 But I also indicated that, you know, this information 6 7 on this page has a September 2013 date on it, was 8 prepared, we had to make certain assumptions when you look at an EPA rule when you have eight options on 9 10 in, we picked one option. Now that we have a final 11 rule we'll go back and we'll look at what the final rule may require compared to the proposed rule. Are 12 there adjustments that need to be made here or are 13 14 the projects -- account type of work we identified 15 going to be consistent with the final rule. 16 still have to do that step now that we have a final 17 rule. 18 So my question is, assuming that option 4 Ο.

19 is more stringent than option 4a, would you suspect that the costs in this would go up? Reasonably. 20

21 Α. I don't know because we'll have to look 22 at the final rule requirements. Does it actually 23 require additional work that wasn't in here or could 24 the systems that we were anticipating also meet the 25 requirements of the final rule. We'd still need to

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1147 1 do that evaluation. 2 But, generally speaking, if a rule is 0. 3 more stringent then you assumed it would be, it 4 usually leads to more compliance costs, correct? 5 I can't say that. And, again, you've Α. said the rule's more stringent. I don't know, 6 7 because we haven't had the opportunity to do that 8 complete evaluation yet. 9 MS. HENRY: That's all the questions I 10 have. EXAMINER PARROT: Ms. Ghiloni. 11 MS. GHILONI: Yes. 12 13 14 FURTHER CROSS-EXAMINATION 15 By Ms. Ghiloni: 16 0. I just have a few questions, Mr. McManus. 17 If you'll look at Sierra Exhibit No. 7, that was the chart. 18 19 Α. All right. 20 Ο. I'm actually going to point you to the chart with the OVEC title. 21 22 Α. Okay. 23 Says "Future Major Environmental 0. 24 Projects." Okay, so I'm looking specifically for the 25 major projects at the Clifty Creek unit, okay, and it

1148 looks like on this chart that the Clifty Creek unit 1 is included in three projects, correct? The landfill 2 expansion, the 316(b) compliance, and the other 3 ELG/CCR compliance; is that correct? 4 5 Α. Yes. And there's two projects in that 6 last category for Clifty Creek. 7 Exactly. So four projects, three of the 0. areas, correct? 8 9 Α. Yes. 10 Ο. And the total values for those projects, 11 do you have a calculator? I do not. 12 Α. 13 MS. HENRY: Mr. Oliker does. MR. OLIKER: I do. 14 MS. HENRY: I can hand it. 15 MR. OLIKER: You never know when you're 16 17 going to need it. 18 EXAMINER PARROT: Thank you. 19 MS. GHILONI: Thank you. 20 I'm not sure I recognize this. Α. It 21 doesn't come with a phone. 2.2 (Laughter.) (By Ms. Ghiloni) So under the landfill 23 0. 24 expansion section, so under that project, the total 25 amount for that project is **series :**; is that

1149 1 correct? 2 Α. Yes. Okay. And the projects related to 3 0. 4 compliance with the 316(b) rule will total 5 ; is that accurate? 6 Α. That looks to be correct. 7 Q. And then the final two projects together, 8 those total , correct? 9 Let me try that again. I'm rusty on this Α. 10 type of calculator. 11 That's okay. I did it twice as well. Q. 12 Α. , is that what you got? Yes. 13 Q. 14 Yes. Α. 15 So when you add those all together, 0. 16 , the total , amount of the projects for Clifty Creek totaled 17 18 ; is that correct? 19 Α. Yes. 20 0. And that unit is located in Indiana; is 21 that correct? That's correct. 22 Α. 23 MS. GHILONI: I have no further 24 questions. Thank you. 25 EXAMINER PARROT: Thank you, Ms. Ghiloni.

	1150
1	Ms. Bair.
2	MS. BAIR: Thank you.
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4	FURTHER CROSS-EXAMINATION
5	By Ms. Bair:
6	Q. On Sierra Club Exhibit 7 well, I guess
7	I can just ask in general, for environmental
8	compliance the projected budget by Mr. Thomas, did
9	those costs include O&M?
10	A. It's my understanding that both of these
11	tables represent capital costs.
12	Q. Okay. So no O&M associated with the
13	projects have been estimated at all?
14	A. I don't know that.
15	Q. Could you please look at Sierra Club
16	Exhibit 7 Confidential. And it is my understanding
17	that the company's response No. 4 on the bottom of
18	the page says that O&M costs associated with the
19	projects have not been estimated. It's on page 1.
20	A. That's what it indicates.
21	MS. BAIR: Thank you.
22	That's all I have.
23	EXAMINER PARROT: Thank you.
24	Mr. Oliker?
25	MR. OLIKER: Yes, just briefly.

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1	FURTHER CROSS-EXAMINATION
2	By Mr. Oliker:
3	Q. Look at Exhibit 14C, please, and on page
4	5.
5	A. Which one is that again?
6	Q. This is the response to interrogatory
7	2-052.
8	A. Okay.
9	Q. And what I'm referring to is the page
10	that says Kyger Creek CCR and ELG projects.
11	A. Is that 13 of 22?
12	Q. It's page 17 of 22.
13	A. Within that
14	Q. Within that, yes.
15	A document.
16	Q. Yes. And specifically it also says
17	"Probabilistic Risk Analysis Summary." Let me know
18	when you're there.
19	A. Okay. I have that.
20	Q. Now, am I correct that the percentiles
21	here that you've listed on the right column starting
22	at to to the shows the way the total
2,3	project costs can vary from a <b>second second second t</b> o
24	?
25	A. I don't really know. Again, I didn't

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1152 prepare this document; the projects group prepared 1 2 it. 3 Q. Okay. And I don't really know what this is Α. 4 5 supposed to represent. Do you typically -- this document was 6 Q. 7 created by American Electric Power, correct? Α. 8 Yes. 9 Q. And do you typically look at estimates for the costs of completing a particular 10 11 environmental project? That's what the projects group would do. 12 Α. 13 Q. But like, say, this column on the right, or this type of presentation, is this something 14 you've seen before? 15 16 Α. No. 17 Q. No? 18 Does American Electric Power typically do 19 an estimate of the costs within a range like we're seeing in document number -- or page 5 here? 20 21 MR. SATTERWHITE: I'm sorry. What page 5 22 are you referring to? 23 MR. OLIKER: 14C, it's really 17 of 22. MR. SATTERWHITE: Seventeen of 22. 24 Ι 25 wanted to make sure. Thank you.

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1	A. I don't know if our projects organization
2	typically prepares this type of document. I don't
3	see it's showing a range. I'm really not sure what
4	these numbers represent.
5	Q. Okay. I guess that's what I'm trying to
6	understand is, is there usually an analysis like
7	we're seeing on page 5 done for a project for AEP?
8	A. Again, I don't know. I've not seen this
9	type of presentation before. Our projects
10	organization, they prepare cost estimates, they put,
11	you know, uncertainty ranges around them, I guess I'd
12	call it that. As they get better and better
13	information, then they can narrow that uncertainty
14	and provide a more accurate cost estimate. Sometimes
15	that may result in costs going up, sometimes it may
16	result in costs going down as they get better
17	information and they can improve the accuracy of the
18	estimate.
19	Q. Okay. But if we look at this estimate,
20	is it safe to say that there is a lot higher, if we
21	were to look at bands for whether it's going to be
22	less or more, the band is much higher on the ability
23	for the project to cost more than projected.
24	A. I can't say that because I don't actually
25	understand what they're presenting here.

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1154 MR. OLIKER: Okay. No more questions, 1 2 your Honor. Thank you, Mr. McManus. 3 EXAMINER PARROT: Ms. Fleisher. 4 MS. FLEISHER: Thank you, your Honor. 5 6 \_ \_ \_ FURTHER CROSS-EXAMINATION 7 8 By Ms. Fleisher: Mr. McManus, if you can look at Sierra 9 0. 10 Club Exhibit 7 and the legal size piece of paper. If you can look back, I think I before had you look at 11 12 the listing for Stuart for mercury effluent 13 wastewater treatment project. Do you see that? 14 Α. Yes, I do. And you see there's a cost listed there 15 Q. 16 for 2015 of **state**; is that correct? That's correct. 17 Α. 18 Q. Do you know what that cost covers? I don't. 19 Α. And for a number of these, I'm not going 20 Q. 21 to -- you can tell me if you feel we need to go 22 through every one, but I don't think we do, for a 23 number of these there's landfill expansion entries 24 listed; is that correct? 25 Α. Specific to Stuart?

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1	Q. No, for within the entire spreadsheet.
2	So let's say the first line there's Conesville
3	landfill expansion on the page we're on, correct?
4	A. Yes.
5	Q. And you go about five lines down there's
6	another Conesville landfill expansion, correct?
7	A. Yes.
8	Q. And I'm not trying to be entirely
9	thorough here, but if you look about midway through
10	the Cardinal listing, there's a landfill expansion.
11	A. Yeah, that's correct.
12	Q. And do you know whether those landfill
13	expansions will involve leachate discharges?
14	MR. SATTERWHITE: Objection, your Honor,
15	these are questions that could have been done on the
16	public session.
17	MS. FLEISHER: I have a question relating
18	to the costs. This is just foundation.
19	EXAMINER PARROT: I'm going to allow
20	leeway in terms of kind of leading to the
21	confidential questions so I'll allow that.
22	MR. SATTERWHITE: Okay.
23	THE WITNESS: Can you repeat the
24	question?
25	Q. (By Ms. Fleisher) Do you know whether any

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leachate from the landfills? 2 I don't know for certain on these. 3 Α. Just sort of general experience, if you have a landfill, 4 you need a leachate collection system, that's part of 5 the design criteria. So I would assume that all of 6 these have some form of leachate collection system 7 involved. 8 9 0. Okay. And do you -- so do you know whether the cost estimates for each of these landfill 10 11 expansion entries would include the costs of leachate collection and treatment? 12 13 I don't know for sure. I would assume Α. leachate collection would be part of the design for 14 the landfill. I don't know for certain whether 15 treatment would be included or not. 16 And do you know whether the finalized 17 0. steam electric ELG has any requirements regarding 18 treatment of leachate for landfills? 19

of these landfill expansion projects will involve

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A. I don't know for certain, but as we were looking at one of the other exhibits where we had information on leachate treatment projects at a couple of our plants that we used to form the estimates for the ELG rule, I think we're anticipating, I don't know for sure it's in the final

rule, but we anticipated we'd have to do those type of treatment projects. MS. FLEISHER: Thank you. That's all I have. EXAMINER PARROT: Thank you. Would the company like to take a few moments to determine whether you have redirect? MR. SATTERWHITE: Thank you, your Honor, yes. EXAMINER PARROT: Okay. Let's go off the record. (Recess taken.) (OPEN RECORD.) 

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

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