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 Monday, October 19, 2015. _ _ _ VOLUME XIII _ _ _ ARMSTRONG & OKEY, INC. 222 East Town Street, Second Floor Columbus, Ohio 43215-5201 (614) 224-9481 - (800) 223-9481 Fax - (614) 224-5724

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APPEARANCES (Continued):

		3176
1	INDEX	
2		
3	WITNESSES	PAGE
4	Bruce Burcat	
5	Direct Examination by Mr. O'Donnell Cross-Examination by Mr. Darr Cross-Examination by Mr. Kurtz	3180 3183 3197
6	Cross-Examination by Mr. Satterwhite Redirect Examination by Mr. O'Donnell	3202 3216
7	Recross-Examination by Mr. Darr Recross-Examination by Mr. Kurtz	3221 3225
8	Recross-Examination by Mr. Satterwhite	3230
9	Edward W. Hill	2222
10	Direct Examination by Ms. Bojko Voir Dire Examination by Mr. Nourse Cross-Examination by Mr. Nourse	3232 3235 3260
11	Redirect Examination by Ms. Bojko	3318
12	Recross-Examination by Mr. Nourse	3321
12	Alan Taylor	
13	Direct Examination by Mr. Kurtz	3326
14	Cross-Examination by Mr. Mendoza Cross-Examination by Ms. Bojko	3328 3329
	Cross-Examination by Ms. Bair	3330
15	Cross-Examination by Mr. Darr	3331
16	Cross-Examination by Mr. Nourse	3336 3359
ТЮ	Redirect Examination by Mr. Kurtz Recross-Examination by Mr. Darr	3367
17	Recross-Examination by Mr. Nourse	3369
18	Lane Kollen	2276
19	Direct Examination by Mr. Kurtz Cross-Examination by Ms. Bojko	3376 3377
T D	Cross-Examination by Mr. Nourse	3385
20	Redirect Examination by Mr. Kurtz	3408
21	Recross-Examination by Mr. Darr Recross-Examination by Mr. Nourse	3415 3417
		3417
22	Ramteen Sioshansi Direct Examination by Mr. Stinson	3419
23	Cross-Examination by Mr. McKenzie	3421
24	Redirect Examination by Mr. Stinson	3463
25		

	1			
				3177
1		EXHIBITS		
2	COMPA	NY EXHIBIT	IDENTIFIED	ADMITTED
3	37 -	Generation Capacity Rider		
4		with Energy Intensive Customer Examples	3263	3325
5				
6	MAREC	EXHIBIT	IDENTIFIED	ADMITTED
7	1 -	Direct Testimony of Bruce Burcat	21.01	3231
8		bluce bulcat	3101	3231
9				
10	OMAEG	EXHIBITS	IDENTIFIED	ADMITTED
11	19 -	Direct Testimony of Edward W. Hill	3233	3323
	2.0	Eratta of Edward W. Hill		
12	20 -	Efalla of Edward W. HIII	3234	3323
13				
14		XHIBIT	IDENTIFIED	ADMITTED
15	12 -	Direct Testimony of Ramteen Sioshansi	3420	3468
16				
17	OEG E	XHIBITS	IDENTIFIED	ADMITTED
18	2 -	Direct Testimony of Alan S. Taylor	3328	3376
19		-	5520	5570
20	3 -	Direct Testimony of Lane Kollen	3378	3420
21				
22	IEU E	XHIBIT	IDENTIFIED	ADMITTED
23	16 -	CO2 Emission Performance		
24		Rate and Goal Computation Technical Support Document	2101	
25		for CPP Final Rule 	3191	

3178 1 Monday Morning Session, 2 October 19, 2015. 3 4 EXAMINER SEE: Let's go on the record. Scheduled for hearing at this time before the Public 5 Utilities Commission is Case No. 14-1693-EL-RDR and 6 7 Case No. 14-1694-EL-AAM. 8 Let's take brief appearances of the 9 parties starting with the companies. 10 MR. NOURSE: Thank you, your Honor. On 11 behalf of Ohio Power Company, Steven T. Nourse, 12 Matthew J. Satterwhite, Matthew S. McKenzie, Daniel 13 R. Conway, Christopher L. Miller. 14 MR. KURTZ: Good morning, your Honors. 15 For OEG, Mike Kurtz, Kurt Boehm, and Jody Cohn. 16 MR. DARR: On behalf of Industrial Energy 17 Users, Frank Darr, and Matt Pritchard. 18 MR. O'DONNELL: Your Honor, on behalf of 19 the Mid-Atlantic Renewable Energy Coalition, Terrence 20 O'Donnell. 21 MR. BEELER: On behalf of the staff of 2.2 the Public Utilities Commission of Ohio, Steven 23 Beeler and Werner Margard. 24 MS. BAIR: On behalf of the OCC, Jodi 25 Bair, Bill Michael, Kevin Moore, and Dane Stinson.

3179 MS. BOJKO: Good morning, your Honors. 1 2 On behalf of the Ohio Manufacturers' Association 3 Energy Group, Kim Bojko and Danielle Ghiloni. 4 MS. PETRUCCI: Good morning. On behalf 5 of the Retail Energy Supply Association, the PJM Power Providers Group, the Electric Power Supply 6 7 Association, Exelon Generation, and Constellation NewEnergy, M. Howard Petricoff, Michael Settineri, 8 9 and Gretchen Petrucci. 10 MR. DOUGHERTY: Good morning, your 11 Honors. On behalf of the Ohio Environmental Council 12 and Environmental Defense Fund, Trent Dougherty. EXAMINER SEE: Mr. O'Donnell, would you 13 14 like to call your witness? 15 MR. O'DONNELL: Yes. I'd like to call 16 Bruce Burcat with Mid-Atlantic Renewable Energy 17 Coalition. Thank you. 18 EXAMINER SEE: Before I swear you in --19 would you like to put in a brief appearance? 20 MR. MENDOZA: Yes, I would. Tony Mendoza 21 on behalf of Sierra Club. 2.2 EXAMINER SEE: Mr. Burcat, if you'd raise 23 your right hand. 24 (Witness sworn.) 25 EXAMINER SEE: Thank you. Have a seat.

	3180
1	Mr. O'Donnell.
2	MR. O'DONNELL: Thank you, your Honor.
3	
4	BRUCE BURCAT
5	being first duly sworn, as prescribed by law, was
6	examined and testified as follows:
7	DIRECT EXAMINATION
8	By Mr. O'Donnell:
9	Q. Mr. Burcat, who are you testifying on
10	behalf of today?
11	A. Mid-Atlantic Renewable Energy Coalition.
12	Q. Who is the Mid-Atlantic Renewable Energy
13	Coalition?
14	A. It's an association of wind energy
15	developers, turbine manufacturers, some public
16	interest groups, service companies, and a
17	transmission company; and the purpose behind the
18	group is to facilitate primarily wind energy
19	development in the region through fair rules and
20	regulations and laws throughout the region.
21	Q. Thank you.
22	And you filed testimony in this case
23	dated September 14th, 2015?
24	A. I did.
25	Q. And do you have any supplements,

3181 1 additions to your testimony; in other words, if you 2 were to file the same today, would you file it as is? 3 Α. Yes. 4 MR. O'DONNELL: Thank you. 5 Your Honors, at this time if it's acceptable, I'd like to move to admit Mr. Burcat's 6 7 testimony as Mid-Atlantic Regional Energy Coalition 1. 8 9 EXAMINER SEE: Okay. So marked. 10 (EXHIBIT MARKED FOR IDENTIFICATION.) 11 Mr. Burcat, what is the purpose of your Ο. 12 testimony in this case? 13 Well, first, let me say it's not to Α. 14 determine or not to review the application to 15 determine if it's in the public interest. What we 16 really were looking to do is to improve the application by adding a thousand megawatts of 17 18 fixed-price renewable energy, and for several 19 reasons. One, it was --20 Ο. If I may, so your purpose was to offer 21 how the application could be improved? 2.2 Α. Yes. 23 And how could the application be Ο. 24 improved? 25 Α. Well, by adding a thousand megawatts of

3182

renewable energy, it would significantly improve the 1 2 hedge or the price stability of the proposal since 3 wind energy and other renewables, certain other 4 renewables like solar, are fixed price and would stay stable through the whole term of the project or the 5 6 whole term of the application of the purchased power 7 agreements.

It would provide a significant avenue 8 9 towards compliance towards the Clean Power Plan, 10 which is now finalized, so that's important because 11 one of the Commission's standards for allowing these 12 types of agreements in its previous order was to have that type of -- was to make sure that it would be 13 14 potentially compliant with pending rules and 15 regulations, environmental rules and regulations, 16 which were just finalized on August the 3rd.

17 And, finally, fuel diversity, which was 18 another important factor in that order, would be 19 significantly improved by this proposal as it's --20 the proposal's primarily focused at coal resources, 21 and this would add some significant renewable energy 2.2 and, as I said, fixed price renewable energy to the 23 proposal. 24

25

MR. O'DONNELL: Thank you.

I don't have any further questions.

3183 EXAMINER SEE: Mr. Mendoza? 1 2 MR. MENDOZA: No questions, your Honor. 3 EXAMINER SEE: Ms. Bojko? 4 MS. BOJKO: No questions, your Honor. 5 Thank you. EXAMINER SEE: Ms. Bair? 6 7 MS. BAIR: No questions, thank you. EXAMINER SEE: Mr. Darr? 8 9 MR. DARR: Briefly, your Honor. 10 11 CROSS-EXAMINATION 12 BY Mr. Darr: The contract that you're proposing that 13 Ο. 14 AEP enter into would be a wholesale contract; is that 15 correct? 16 That's correct. Α. And that wholesale contract would be 17 Q. 18 subject to whatever review is available under the 19 Federal Energy Regulatory Commission, is that also 20 correct, if you know? I don't think it is. 21 Α. 2.2 Ο. Do you think that this is a retail 23 contract that's subject to the Commission's 24 jurisdiction? 25 Yeah. This is clearly subject to the Α.

3184 1 Commission's jurisdiction. 2 Let me ask you --Q. 3 Α. This would be for the standard offer service customers. 4 So you're talking about replacing the 5 Ο. 6 standard offer with generation provided by the 7 proposal that's being offered here; is that correct? Well, not replacing it; supplementing it. 8 Α. 9 Ο. Some portion of it? 10 Α. Yes. 11 So going back to my original question, Ο. 12 what essentially you're proposing here is a retail contract to supplement or replace power that's 13 14 currently being purchased through the auction 15 process; is that correct? 16 That's correct. Α. Now, with regard to your proposal, if I 17 Q. 18 understand it correctly, you are not indicating that 19 any of the generation currently proposed to be 20 provided under the purchased power agreement 21 contained in the application would be displaced by 2.2 the power that would be subject to this agreement 23 that you're proposing; is that correct? 24 That's correct. Α. 25 Now, in your testimony, beginning at Q.

1 pages 9 and 10, you identify that there will be 2 requirements associated with compliance with the 3 Clean Power Plan; is that correct? 4 Α. In Ohio, yes. Yes. And the final rule would require either 5 Ο. 6 rate or mass reductions of carbon dioxide emissions, 7 correct? 8 Α. Correct. 9 And at page 10, starting at line 17, you Ο. 10 describe in your testimony a method of addressing the carbon emissions from the AEPGR plants that are 11 12 subject to the PPA agreement, correct? 13 That's correct. Α. 14 And then in Attachment 1 you provide some Q. 15 aggregate and individual plant calculations regarding 16 the amount of wind capacity that would be needed to 17 meet the various CO2 requirements; is that right? 18 Α. Yes. 19 In Attachment 1 you're addressing the Q. 20 total generation changes needed such that the 21 combined, coal and wind electricity production, meets 2.2 the final EPA rate base goal for Ohio; is that fair? 23 Α. That is correct. 24 Let's take page A2 of your exhibit. Q. In 25 this exhibit you assume that the plant continues to

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3186
      operate at the existing level, and then you calculate
 1
 2
      the additional zero emissions production that would
 3
      be necessary to reach an average emission level
 4
      1,190 pounds per megawatt-hour, correct?
 5
             Α.
                  Yes.
                  And that ends up being 2.407 million
 6
             Ο.
 7
      megawatt-hours; is that correct?
                  That is correct.
 8
             Α.
 9
             Q.
                  So then if we go through each of the
10
      attachment pages starting with A1 through A5, you've
11
      done basically the same calculation on either an
12
      individual plant basis or on an aggregate basis; is
13
      that right?
14
                  That is correct.
             Α.
15
                  Now, to reach the conclusion that the
             Ο.
16
      additional power provided under your proposal would
      satisfy the emission rate levels contained in the EPA
17
18
      rule for the state of Ohio, you divide the existing
19
      output, which is 6.99 billion pounds, by the
20
      aggregate hours of the existing plant and the
21
      additional wind generation that you're proposing to
2.2
      add, correct?
23
                  Are you talking about A2?
             Α.
24
                  I'm talking about Cardinal.
             Q.
25
                  Cardinal, okay. And could you repeat the
             Α.
```

3187

1 question?

T	question:
2	Q. Sure. To reach the conclusion that the
3	additional generation would meet the requirements of
4	the EPA rate-based emissions requirement for Ohio of
5	1,190 pounds per megawatt-hour, you take the existing
6	generation carbon emissions of 6.9 billion pounds and
7	divide that by the total of the Cardinal generation
8	plus the additional emissions-free generation,
9	correct?
10	A. That's correct.
11	Q. And so the calculation would be
12	6.29 billion pounds divided by 5.874 million
13	megawatt-hours to reach the 1,190 calculation,
14	correct?
15	A. Can you repeat that once more? I'm not
16	sure I
17	Q. Sure.
18	A. I'm not sure I agree with one of those.
19	Q. The numerator would be, for the
20	calculation that we're talking about, would be the
21	6.99 billion pounds of emissions, correct?
22	A. Yes.
23	Q. The denominator, or the divider, would be
24	the aggregate megawatt-hours of both Cardinal 1 and
25	the generation that you identify in the

3188 1 next-to-the-last line of 2.407 additional 2 megawatt-hours from the wind source, correct? 3 Α. Yes. 4 Ο. And then if we add those two numbers together, those work out to about 5.874 million 5 megawatt-hours, correct? 6 7 Α. Correct. And if you divide that number into the 8 Ο. 9 pounds of carbon generated by Cardinal 1 of 10 6.99 billion pounds, you end up with 1,190, correct? 11 Α. That's correct. 12 Q. Okay. And you also make a calculation of 13 the wind capacity equivalent that would be necessary 14 to produce the additional megawatt-hours, and that's 15 designated on line -- on the last line of the table 16 on page A2, correct? 17 Α. That's correct. 18 And in this case, for Cardinal 1 it would Ο. 19 be an additional 785 megawatts of wind capacity. 20 Α. Yes. 21 Am I correct the capacity factor that you Q. 2.2 use pretty consistently across these examples is 23 between 34 and 35 percent? 24 That's right. Α. 25 Now, you're familiar with the technical Ο.

3189 1 documents in support of the EPA rule? 2 Α. "Familiar with" is I guess a good way to 3 put it, yes. 4 Ο. Are you familiar with the manner in which the EPA calculated what ends up being for Ohio the 5 1,190 figure? 6 7 No. I primarily used their output. I Α. didn't go into the specifics of how they got to the 8 9 1,190. 10 Let's talk about it more generally, then. Ο. 11 You're familiar with the fact that the EPA used a 12 three building-block approach, correct? 13 Α. Correct. 14 The first building block consisted of Q. 15 heat rate reductions or heat rate improvements 16 associated with what the EPA defined as steam generation, correct? 17 18 Α. Correct. 19 Steam generation consisted of generation Q. 20 that was coal-fired and oil-fired, correct? 21 Α. Correct. 2.2 Q. The second block is generation provided 23 by natural gas combined-cycle units, correct? 24 Α. Yes. 25 And the third block was the addition of Ο.

3190 renewables, correct? 1 2 Α. That's correct. 3 Now, the calculation process itself was Ο. 4 to take, first, an estimate of the amount of 5 generation that would be necessary to produce the same amount of generation along a baseline with an 6 7 improved heat rate, correct? 8 Α. Yes. 9 And generation then was stepped down to Ο. reflect that improved heat rate, correct? There was 10 11 a deduction? 12 Α. Yes. The second step in making the calculation 13 Ο. 14 was to look at the available renewables that could be 15 brought online to displace generation from steam, correct? 16 17 Α. That's right. 18 And then the third step was to fill in Ο. 19 any remaining additional generation that could be 20 produced by increasing the production from natural 21 gas combined-cycle units, correct? 2.2 Α. I'll accept that, subject to check. 23 Now, each one of these calculations had Ο. 24 the effect of reducing the amount of generation that 25 could be -- that would be allowed from the

3191 steam-based resources, correct? 1 2 I'll accept that, subject to check. Α. 3 MR. DARR: May I approach, your Honor? 4 EXAMINER SEE: Yes. 5 MR. DARR: There may be a way to firm 6 this up a little bit. 7 I'd like to have a document marked as IEU Exhibit 16. 8 9 (EXHIBIT MARKED FOR IDENTIFICATION.) 10 Ο. Do you have in front of you what's been 11 marked as IEU Exhibit 16? 12 Α. I do. 13 Are you familiar with this document? Ο. 14 I am not. Α. 15 For purposes of this, what I'd like to do Q. 16 is simply provide you a basis to confirm some of the 17 calculations that we were just walking through. 18 Could you turn to Table 4, please? And this is on 19 page 11. 20 Now, Mr. Burcat, do you see that on 21 column I, fossil steam generation listed in this 2.2 example shows for the eastern interconnection 23 1.3 million gigawatt-hours of production? 24 I see that on the table. Α. 25 Q. Okay.

3192

1 MR. O'DONNELL: Your Honor, I'm just 2 going to object in that the witness was just handed a 3 50-page document with which he said he wasn't 4 familiar. I'm not sure that there's even been a foundation laid for what this is, and now we're sort 5 6 of delving into a table on page 11 that he hasn't 7 seen before. MR. DARR: Your Honor, I agree with 8 9 Mr. O'Donnell that there's a problem here. The 10 problem here, however, is the witness has indicated 11 he's agreeing, subject to check, and I'm offering him 12 an opportunity to confirm his understanding. And if 13 I may be given a little bit of leeway, I think I can 14 do this without, A) having to introduce the document 15 or, B) requiring him to review this on an extended 16 basis. 17 EXAMINER SEE: Okay. I'll give you a 18 little bit of leeway, let's see where it goes for 19 now. 20 MR. DARR: I appreciate that, your Honor. 21 Just to confirm, Mr. Burcat, you Q. described the basic calculation that the EPA is 2.2 23 making is to take an existing baseline and then to 24 move that baseline based on the additions of block 2 25 and 3.

	3193
1	A. Correct.
2	Q. Okay. And, in addition, adjust it for
3	block 1, which is the heat rate reduction.
4	A. That's correct.
5	Q. Or heat rate improvements. Darn, I said
6	it wrong again.
7	Okay. Now, as those calculations take
8	place, would you agree with me that the amount of
9	emissions associated with steam generation, which the
10	EPA has defined as both coal- and oil-based
11	generation, at each one of those steps the amount of
12	steam-based generation is reduced?
13	A. I mean, I'm assuming, because that's part
14	of the building blocks, that that's the case, but I
15	can't tell from this document what that is. I have
16	not looked at this document before.
17	Q. You're willing to accept that as the
18	effect of what happens of going through the building
19	blocks; is that correct?
20	A. Yes.
21	Q. Let's move on, then.
22	Now, at page 12 of your testimony you
23	indicated that there are 11 permitted wind farms; is
24	that correct?
25	A. That's correct.

	3194
1	Q. And am I correct that none of these has
2	been constructed or is under construction at the
3	current time?
4	A. As far as I know, that's correct.
5	Q. They have received their permits from the
6	Ohio Power Siting Board; is that correct?
7	A. Yes.
8	Q. So in each case we're talking about a new
9	addition of wind generation, correct?
10	A. That is correct.
11	Q. Now, I believe it's your understanding
12	that PJM uses a capacity factor that's different than
13	the one that you proposed in your Attachment 1; is
14	that correct?
15	A. No, that's not correct.
16	Q. Am I correct that PJM uses a capacity
17	factor, a class average capacity factor, of
18	13 percent for wind resources?
19	A. That's not correct. Well, I think it
20	needs an explanation.
21	Q. Well, let's answer my question first and
22	then your counsel can ask you questions to clarify.
23	Am I correct that the class average capacity factor
24	for a wind resource is 13 percent?
25	A. No, that's not correct.

3195 1 Are you familiar with the PJM manual, Q. 2 sir? 3 I've looked at it at times, but not Α. 4 terribly familiar with it. I've worked on specific pieces of it during FERC Order 1000 proceedings and 5 other various stakeholder processes at PJM. 6 7 MR. DARR: If I could have just a second, 8 your Honor. I've misplaced the citation. 9 EXAMINER SEE: Are you ready to proceed, 10 Mr. Darr? 11 MR. DARR: Yes. Thank you. My 12 apologies, your Honor. Usually I have these 13 highlighted and, unfortunately, the page number I had 14 in my notes was incorrect. 15 (By Mr. Darr) Mr. Burcat, you were a Ο. 16 witness in the FE case, in Case No. 14-1297-EL-SSO; 17 is that correct? 18 That's correct. Α. 19 For purposes of the RPM auctions Q. 20 conducted by PJM, PJM uses an average capacity factor 21 for wind of 13 percent, correct? 2.2 Α. For purposes of the RPM auction, which is 23 quite a bit different than the question you asked me. 24 So the answer to my question is that for Q. 25 the purposes of the capacity auction, they use a

3196

1 13 percent capacity factor, correct? 2 For the purpose of the capacity auction, Α. 3 but that's a lot different, as I said, than -- it's 4 usually somewhere -- when you look at this, when you look at a capacity factor for wind, you have to look 5 at the total for the year and divide by the number of 6 7 hours in the year and come up with the average capacity factor. 8 9 There's the reliability pricing model, 10 which is the capacity market, in PJM is strictly on 11 that peak day in the summer. That's when there's a 12 13 percent capacity factor. That's not the average 13 capacity factor that anybody uses for wind for that 14 purpose, but for the RPM that's what they use because 15 it's a whole different type of market. 16 So the answer to my question is yes? Ο. 17 Α. Yes, to the RPM question, but that's not 18 the same as the question you asked me before. 19 MR. DARR: Thank you. That's all I 20 have. 21 EXAMINER SEE: Mr. Kurtz? 2.2 MR. KURTZ: Thank you, your Honor, very 23 briefly. 24 25

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1	CROSS-EXAMINATION
2	By Mr. Kurtz:
3	Q. Good morning, sir.
4	A. Good morning.
5	Q. I'm unclear from your verbal summary at
6	the beginning what is AEP supposed to do with a
7	thousand megawatts of wind power if the Commission
8	accepts your proposal? Is it to be used to supply
9	SSO customers?
10	A. It would be competitively sourced for SSO
11	customers.
12	Q. SSO, standard service offer?
13	A. Yep.
14	Q. Why wouldn't the wind generation just
15	compete in the SSO auctions like everyone else?
16	A. Because, as my testimony states, we're
17	looking at long-term commitments here so that the
18	generation will get built. I mean, the purpose of
19	purchased power agreements and this would be
20	competitively sourced so it's still a market-based
21	type of process. But this would be provide
22	developers the opportunity for financing and would
23	also provide the long-term hedge that I talked about
24	at the beginning of my testimony today.
25	Q. So what do the other bidders in the SSO

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1	auctions do? I mean, they have to they assume
2	they don't know how much SSO load there will be,
3	correct, so that they can shop or come back during
4	the term of their competitive bid?
5	A. I'm not sure I understand your question.
6	Q. The people who bid in the SSO auctions
7	don't actually they bid on tranches, but they
8	don't know how many megawatt-hours they'll have to
9	serve?
10	A. That's correct.
11	Q. Because they don't know how large the SSO
12	load would be, right?
13	A. Yes. This would be a reduction to that
14	load over the term of the contract.
15	Q. Well, it wouldn't be a reduction to load.
16	Load is what it is.
17	A. To what needs to be supplied to load.
18	Q. And so the other auction bidders would
19	have to make an assumption about how much wind
20	generation would be provided, correct?
21	A. Yeah. I mean, they make a number of
22	assumptions, and that would be a number that would
23	be an assumption as well, but, you know, it would be
24	relatively consistent. I mean, there's certainly
25	forecasts and things that are fairly sophisticated

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1 today.

Q. Well, that's my point. This would add another assumption that the bidders have to factor into their bids increasing the risk for their own purposes?

A. I don't see that. It would just be a reduced number, a reduced load, reduced sales for that particular purpose.

9 Q. Well, except for when the wind's not blowing, the other auction providers would have to 10 11 provide more power than when the wind is blowing 12 because it would be a thousand megawatts pumping into 13 the system when the wind's blowing and less than a 14 thousand when the wind is not. So the other auction 15 bidders would have more uncertainty as to how much 16 and when they have to provide power; don't you agree? 17 Α. No, I disagree with that.

18 Q. You disagree. Do you know how the SSO 19 auctions work?

20

A. Yes.

21 Q. Okay. Let me ask you to turn to page 10 22 of your testimony, line 17. You list two benefits, I 23 guess, of your proposal. The second is renewable 24 energy sources can effectively offset carbon 25 emissions from the AEPGR plants.

3200 1 Α. Yes. 2 And that's reducing the CO2 emissions Q. 3 rate that you were discussing with Mr. Darr? 4 Α. Correct. 5 Now, you understand that the state EPA Ο. 6 will issue its initial state implementation plan in 7 September of 2016, correct? Α. That's correct. 8 9 And you don't know that the state of Ohio Q. 10 is going to go with a rate-based approach as opposed 11 to a mass-based approach, correct? 12 Α. I don't know, but this is certainly a very strong option for -- renewable energy is, even 13 14 with the EPA's studies and EIA's studies is --15 especially wind energy is one of the lowest-cost 16 options, if not the lowest-cost option, for reducing. 17 MR. KURTZ: Could I have the question and 18 answer read back, please? 19 (Record read.) 20 MR. KURTZ: Your Honor, I'm going to stop 21 right there. I'm going to move to strike everything 2.2 after the first sentence because it's beyond the --23 it's not answering the question. It's opining as to 24 the virtues of wind power, et cetera. 25 EXAMINER SEE: Did you want to reply,

1 Mr. O'Donnell? 2 MR. O'DONNELL: Well, we don't object to 3 that, your Honor. That's fine. 4 EXAMINER SEE: Then it will be, after "I don't know," will be stricken. 5 (By Mr. Kurtz) If you don't know what 6 Ο. 7 compliance approach the state of Ohio will propose in its state implementation plan in September of 2016, 8 9 why should the Commission obligate AEP to a thousand 10 megawatts of wind power at this time? 11 Because this gets them a long way, this Α. 12 would get them 50 percent of the way for these particular plants towards compliance. 13 14 If a rate-based approach is adopted. And Q. 15 we don't know whether Ohio is going to go for a 16 rate-based approach, correct? Well, I mean, I just disagree with the 17 Α. 18 premise of that. 19 MR. KURTZ: Thank you, your Honor. No 20 more questions. 21 EXAMINER SEE: Mr. Nourse. I'm sorry. 2.2 Hold on just a second. 23 Ms. Petrucci? 24 MS. PETRUCCI: No questions. 25 EXAMINER SEE: Mr. Dougherty?

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3202 1 MR. DOUGHERTY: No questions. 2 EXAMINER SEE: Now, Mr. Satterwhite. 3 MR. SATTERWHITE: Thank you, your Honor. 4 5 CROSS-EXAMINATION 6 By Mr. Satterwhite: 7 Good morning, Mr. Burcat. How are you Q. doing today? 8 9 Α. Good. Thank you. 10 Q. My name is Matt Satterwhite. I'm going 11 to ask you some questions on behalf of Ohio Power 12 today. One thing just to clear up my confusion, 13 14 I believe you testified today and in your testimony, 15 that the goal of the MAREC position is to be an adder 16 on top of whatever AEP Ohio is already requesting, 17 correct? 18 That's correct. Α. 19 Are you aware that AEP Ohio is requesting Q. 20 not to add this power to the SSO auction, but to sell 21 this power in the market? 2.2 Α. Yes. 23 And your proposal is different than that; Ο. is that my understanding? You want to add this to 24 25 the SSO auction for the standard service offer; is

3203 that correct? 1 2 Α. That's correct. 3 Now let's look at page 10 of your Ο. 4 testimony. Do you have your testimony in front of 5 you? 6 Α. Yes. 7 Specifically on lines 9 and 11 you make Q. the statement, "The Application does not account for 8 9 any potential impacts from these proposed 10 environmental rules and, as demonstrated above, the 11 AEPGR plants produce significant carbon dioxide 12 emissions." Do you see that? 13 Which line? I'm sorry. Α. 14 There's a line -- line 9 there's a Q. 15 sentence starting "The application." 16 Α. Okav. 17 Ο. Take a second and read that. 18 Α. Yes. 19 Now, when you mentioned the application, Q. 20 with a capital A in that sentence, are you referring 21 solely to the header document in the case in chief, 2.2 the application, or the entire case in chief that was 23 filed by the company? 24 I'm sorry, the header? Α. 25 What do you mean by "application" in that Ο.

1 sentence?

2 I think what I specifically mean in that Α. 3 case is what we're proposing as opposed to the 4 application. 5 Well, my understanding is the application Ο. is referring to what AEP Ohio has filed, and your 6 statement is that what AEP Ohio has filed does not 7 account for potential impacts or environmental rules; 8 is that right? 9 10 Α. That's correct. I'm sorry. Yes. 11 Ο. So my question is when you say 12 "application," do you mean the sort of summary 13 application that goes along with all the 14 case-in-chief testimony, or do you mean the entire 15 case in chief of the application as well as the testimony of the 11 witnesses of AEP Ohio? 16 17 Α. No, just the summary. 18 So you did not review the testimony of Ο. 19 AEP witnesses John McManus and Toby Thomas? 20 Α. I did not. 21 So you don't know whether they did Q. 2.2 address any future potential impacts from the rules 23 that you discuss in your testimony, correct? 24 That's correct. Α. 25 And if they had, this would make this Ο.

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3205 statement that you have here, if we add in "case in 1 2 chief" beyond "application incorrect," correct? 3 You're asking me to add in something I Α. 4 didn't have in my testimony. MR. O'DONNELL: Your Honor, I'm just 5 6 going to object. That's not what he testified. 7 MR. SATTERWHITE: I can rephrase it. Ιt 8 was poorly worded. 9 EXAMINER SEE: Okay. 10 Ο. So you stated this sentence only applies 11 to the application document, not to the entire filing 12 of AEP Ohio, correct? 13 That's correct. Α. 14 And you have no idea if AEP Ohio has Q. 15 actually provided this information in its supporting 16 testimony, correct? 17 Α. That's correct. 18 Now, the proposal you have, this adder 0. 19 proposal I'll call it, can this be done if the 20 Commission were to approve the case as filed by 21 AEP Ohio and then perform this adder proposal that 2.2 you've proposed? 23 I would say it would be part and parcel. Α. 24 Q. But if the Commission were to approve the 25 PPA as filed by AEP Ohio and approve your

3206 1 recommendation to add the thousand megawatts, the 2 Commission wouldn't need to wait for the RFP to come 3 in and everything to be done with your renewable 4 adder to go ahead and start the proposal that AEP Ohio has proposed, correct? 5 Assuming it was, they were both approved, 6 Α. 7 yes, that's correct. And you also propose a cap on what would 8 Ο. go into that RFP. 9 10 Α. That's correct. 11 Ο. And that cap is based on the average 12 price of the units that are currently in the AEP PPA; 13 is that correct? 14 Α. Yes. You're talking about a price cap on 15 the PPAs that we proposed. 16 Ο. Right. 17 Α. Yes. 18 So an RFP would go out -- I'm just trying Ο. 19 to think the final process for the Commission. 20 Α. That's correct. 21 So the Commission could approve Q. 2.2 AEP Ohio's PPA and then order an RFP to be issued, 23 correct? 24 Α. Yes. In that RFP there would be a price not to 25 Ο.

3207 exceed based on the average price of the provision of 1 2 power capacity. 3 Α. That's correct. We said these particular 4 purchased power agreements would not exceed and 5 likely be lower than the prices in the proposal by AEP. 6 7 And you answered some questions that Q. Mr. Darr, counsel for IEU, had asked you based on the 8 9 level of facilities that are currently permitted in 10 Ohio. Do you remember that? 11 Α. Yes. 12 Q. And MAREC is really focused on wind renewable projects, correct? 13 14 That's correct. Α. 15 And you state that you want a thousand Ο. 16 megawatts to be added as far as the AEP Ohio 17 proceeding, correct? 18 Α. Yes. 19 And then you've also proposed that Q. 20 800 megawatts be added in the FirstEnergy proceeding, 21 correct? 2.2 Α. That's correct. 23 And you cite in your testimony that Ο. 24 there's 1,400 megawatts currently available if all of 25 the things were actually to be built, correct?

3208 1 In Ohio, yes. Α. 2 So would you agree that if the Commission Q. 3 were to approve both your proposal in the AEP Ohio case and the FirstEnergy case, there are not enough 4 resources to fit your recommendation? 5 6 Well, there are not enough resources Α. 7 permitted at this time in Ohio, but certainly for the Clean Power Plan in the final rule, it certainly 8 9 allows for trading and working and dealing with 10 out-of-state resources as part of the -- as part of 11 the final rule. 12 Ο. So your proposal is agnostic on whether the facilities are located in Ohio or out of Ohio, 13 14 correct? 15 Well, I don't think that. I do think Α. 16 that, you know, there's certainly -- for the economic 17 development benefits it certainly makes a lot of 18 sense to do as many of these projects as possible 19 within Ohio and then, if necessary, go outside the 20 state to make up the, you know, the shortfall, if 21 any. 2.2 Q. You also provide some testimony dealing 23 with what you call the benefits of the fuel supply 24 for renewables versus the cost of fuel supply for 25 power plants fueled by coal, correct?

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1	A. Yes.
2	Q. But you've not reviewed any of the coal
3	contracts for the PPA units, correct?
4	A. I've looked at the term sheet or the
5	terms that were listed in Witness Pearce's testimony,
6	but I have not specifically looked at the coal
7	contracts themselves or the proposed contracts
8	themselves.
9	Q. And you have no idea what the terms are
10	going forward for these power plants and what they've
11	locked in for coal prices, correct?
12	A. I don't have the specifics for that,
13	that's correct.
14	Q. You've not reviewed that at all, correct?
15	A. I have not reviewed that at all.
16	Q. And the numbers on page 12 of your
17	testimony that deal with economic development
18	A. Yes.
19	Q are you familiar with those?
20	A. Yes.
21	Q. That's an extrapolation of the general
22	fact sheet used for another wind farm, correct?
23	A. That's right. We were trying to get a
24	wind farm in Ohio that was and we used that to
25	extrapolate the benefits, but those are the benefits

3210 1 that were determined by that company as to what the 2 benefits were for that particular wind farm, and 3 they're consistent with my understanding and review 4 in the region with benefits that are happening in other states as well. 5 What was the size of the wind farm that 6 Ο. 7 the numbers were based upon? 8 Α. 304 megawatts. 9 And so you just scaled that to a thousand Q. 10 for your testimony here? 11 Α. That's correct. 12 Q. But there was no specific economic study 13 done to compare the thousand megawatts and what 14 numbers that would produce for economic development, 15 correct? 16 Α. There was no specific study. 17 MR. SATTERWHITE: One second, your Honor. 18 And if the Commission were to approve Ο. 19 your proposal and order the ordering, I guess, of a 20 thousand megawatts of wind, would the investors in 21 those wind farms expect a return on equity for what 2.2 they invest in those farms? 23 Well, any smart businessperson would Α. 24 expect to earn a return on equity, but not in the 25 same way that your proposal is because it's not built

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1	into the specific contract like it is in your
2	contracts. It would be something that the investors
3	would put into their pricing when they bid in and
4	would be subject to the competitive procurement
5	process that would be involved and that would
6	ultimately have an impact, and if the lowest price
7	was accepted, ultimately there would be some kind of
8	profit or return in the I mean, you wouldn't
9	expect somebody to do something where they would be
10	operating at a loss for the
11	Q. Right.
12	A the contract.
13	Q. I didn't mean to cut you off. So you're
14	saying there's an expectation to get a return on
15	equity whenever there's a large investment, correct?
16	A. Yes. And any business would expect that,
17	but there are you know, it's a competitive process
18	so it's going to be as low as possible, and it would
19	be, obviously, to reduce the price enough that, you
20	know, that they could get the proposal without
21	putting them in some kind of financial distress for
22	doing it but also comply with what we had talked
23	about with the upper limits to the pricing.
24	Q. And I think it's what you're saying, but
25	I just want to make sure. Someone wouldn't invest

3212 1 unless they were going to get a return on that, 2 correct? 3 I think that's the general theory, yes. Α. And for the thousand megawatts that 4 Ο. 5 you're proposing in your adder proposal, MAREC has 6 not done any study on the transmission upgrades that 7 would be needed to add those to the system, correct? 8 Α. Well, the investors who are proposing 9 these -- the developers who are proposing these projects review that information. Most of the times 10 11 they try to build as close as they can to the 12 transmission system, and they typically are required to, you know, pay some of the costs, if not all of 13 14 the costs, of those upgrades, and that would be 15 included in the pricing. 16 But you're just guessing now; you don't Ο. 17 know what any of those costs are, correct? MR. O'DONNELL: Objection, your Honor. 18 19 He said the developers already provided that 20 information. It's not a matter of him quessing or 21 not. 2.2 MR. SATTERWHITE: I believe, your Honor, 23 he said "typically." I'm asking examples here. He's 24 made a recommendation to the Commission, and I want 25 to know if he can sit on the stand here and tell us

1 what the impact's going to be. 2 I can tell you --Α. 3 EXAMINER SEE: I'm sorry. Hold on just a moment. I'll allow the question. 4 I can tell you that the prices are going 5 Α. to be lower than what's in the AEP proposal, and that 6 7 would include the costs, any of the costs, that the developers have to pay for that transmission, which 8 9 is usually substantial, if not the whole portion, to 10 attach to the transmission system. 11 MR. SATTERWHITE: Your Honor, I move to 12 strike. I asked him if he's aware of any study and 13 that no study has been done. We were talking about 14 his awareness of what was done, and he gave me a 15 speech in comparison of his proposal with AEP's 16 proposal. 17 MR. O'DONNELL: Your Honor, if I may 18 respond. 19 EXAMINER SEE: Yes. 20 MR. O'DONNELL: The witness said the 21 developers did the study and he -- that was his 2.2 response. 23 MR. SATTERWHITE: I was still trying to 24 get an answer to my first question, your Honor. 25 EXAMINER SEE: Just a moment.

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3213

3214 1 Let's try that again. I don't think it 2 was an answer in response to the question. 3 MR. SATTERWHITE: So did your Honor grant 4 the motion to strike on the "not answer"? EXAMINER SEE: No. Let's try it again. 5 6 Ο. (By Mr. Satterwhite) As you sit here 7 today, you've not reviewed a study that's compared 8 the thousand megawatts that you're proposing to the 9 necessary transmission upgrades that would have to 10 come along with that, correct? 11 I would say having not reviewed a study Α. 12 would be a correct characterization of it. 13 So any statements you make pertaining to 0. 14 what might need to be added to the transmission 15 system is a guess on your part, correct? 16 Α. No. I know that developers count that in 17 their costs as part of their proposal so they would 18 do a study. And they're not going to bid in if the 19 transmission costs are, you know, such that it would 20 make their proposal uneconomic. 21 So it's your testimony that the RFP that Q. 2.2 the Commission puts out, the prices that come in 23 response to that will include the prices for the 24 transmission upgrades? 25 Α. Yes. That the generation owners would

3215 1 pay, yes. 2 So those costs would be included or at Q. 3 least would be eligible for inclusion in response to 4 those prices that come in from the RFP, correct? 5 Α. Yes. MR. SATTERWHITE: Thank you. That's all 6 7 I have. EXAMINER SEE: Mr. Beeler? 8 9 MR. BEELER: No questions, your Honor. 10 EXAMINER SEE: Any redirect, 11 Mr. O'Donnell? 12 MR. O'DONNELL: Yes. May I have two 13 minutes? 14 EXAMINER SEE: Yes. 15 MR. O'DONNELL: Thank you, your Honor. 16 EXAMINER SEE: Mr. O'Donnell, did you 17 want to step out with the witness? 18 MR. O'DONNELL: Pardon? 19 EXAMINER SEE: Did you want to step out 20 and confer with your witness? 21 MR. O'DONNELL: Yes, please, your Honor. 2.2 Thank you. 23 (Off the record.) 24 EXAMINER SEE: Let's go back on the 25 record.

3216 Mr. O'Donnell, redirect? 1 2 MR. O'DONNELL: Thank you, your Honor. 3 4 REDIRECT EXAMINATION 5 By Mr. O'Donnell: Mr. Burcat, a few questions for you, sir. 6 Q. 7 You were asked about capacity factor for wind and went back and forth over whether a 12 percent 8 9 capacity factor or something more around 34, 10 35 percent was appropriate. For purposes of the 11 calculation provided in your testimony, which 12 capacity factor did MAREC use and why? We used the mid-30s capacity factor 13 Α. 14 because that's the average capacity factor for these 15 units through the entire year. What's used for a 16 very specific market at PJM, called the reliability 17 pricing model, is very specific for something called 18 capacity resource, and we're not claiming that wind 19 is some kind of significant capacity resource; that's 20 only for a peak-day resource, and so they use -- it's 21 13 percent. They use 13 percent at PJM, and -- but 2.2 it's clearly understood and the folks at PJM would 23 concur that the average capacity factor which should 24 be used in this type of calculation would be the 25 mid-30s level.

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MR. DARR: Objection, your Honor. That's a statement with regard to the knowledge of PJM or what PJM would believe. That can't possibly be within the permissible testimony of this witness, and I move to strike that portion of that answer.

6 MR. O'DONNELL: Your Honors, I could just 7 ask Mr. Burcat. We can strike that portion of the 8 answer.

9 Q. (By Mr. O'Donnell) But I would ask
10 Mr. Burcat if he has a basis, additional basis to
11 support the mid-30s capacity factor, including based
12 on your knowledge of PJM.

13 Α. Yeah. I mean, this is just understood. 14 I mean, these are the actual capacity factors that 15 these developers in the region are getting for their 16 particular projects. They're also -- as you go 17 further in the Midwest, the capacity factors actually 18 go up. So -- but the capacity factors are actually 19 going up for wind projects, in general, because of 20 the -- and it's the design, partly the design of the 21 wind turbines are improving, they're more efficient, 2.2 they're larger, so that's a huge reason.

23 So, if anything, capacity factors are 24 going to go up over time, not down. So we're using a 25 pretty conservative number here as these projects are

1 actually to be developed sometime in the future. 2 Thank you. I want to ask a question. Ο. 3 You were asked about the price cap that MAREC has proposed for purposes of the renewables procurement. 4 5 How does that price cap work as proposed? 6 If through a procurement process, which Α. 7 is what we propose, a competitive procurement 8 process, the prices, the ultimate prices, the winning 9 price, however you want to call it, exceeds -- equals 10 or exceeds, the price of the -- the average price of 11 the proposal by AEP, then that contract would not be 12 something that AEP would be required to enter into, and I would assume it would be in the order of the 13 14 Commission. 15 We're not asking to develop a project 16 that would, you know, be more expensive than what's being proposed here, for sure, and we strongly 17 18 believe it would be less expensive --19 Q. Thank you. 20 Α. -- on an average and firm through the 21 entire length of the contract. The price would be 2.2 known from day one to the last day of the purchased 23 power agreement. It's 15, 20 years. 24 Thank you. And those prices would Q. 25 include any transmission costs in addition to the

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3218

1 generation?

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A. It would, yeah. It would be an all-in price.

Q. All-in price, thank you.

On the question of the Clean Power Plan, 5 you were asked whether Ohio has a choice to pursue 6 7 sort of a rate-based framework or a mass-based framework in terms of compliance with the Clean Power 8 9 Plan. Is it your testimony that the MAREC proposal 10 would assist Ohio's compliance with the Clean Power 11 Plan in either case or only under one of those 12 scenarios?

13 Α. No; in either case. Yeah, the wind power 14 was determined under both scenarios to be a very 15 cost-effective way of meeting the Clean Power Plan 16 requirements. And let me be clear about that, that 17 we're not just saying it should be wind power, we think there should be a portfolio approach. 18 We 19 totally are supportive of a portfolio approach for 20 the same reason why we think our proposal supports 21 diversity with what AEP is proposing here. But under the Clean Power Plan, I think there's no expectation 2.2 23 from the wind industry that they're going to be 24 the -- necessarily the supporting just about the 25 whole compliance. It's going to be some kind of

3220 1 portfolio approach, and it may be between different 2 building blocks. It may be between different 3 renewable energy resources. It could be a number of 4 different ways that the plan could be met. 5 So we're not just saying it has to be 6 wind, but we think wind will be a very strong player 7 in that final -- once the plan gets underway and ultimately we get to 2030 when the final goals have 8 9 to be met. 10 Ο. Thank you. 11 Last question. You were asked about the 12 feasibility of the plan in terms of permitted projects in Ohio, wind specifically. Do you believe 13 14 that the MAREC proposal is feasible in terms of 15 building the renewables that are recommended, and if 16 so, why? 17 Α. Yeah. And I do want to clarify that even 18 though there's 1,400 megawatts in the -- that have 19 been permitted to this point in time, there are a lot 20 of other projects in the pipeline that, you know, 21 over time -- this is not going to go in in the first 2.2 day -- over time to get permitted and to get built. 23 So even though there's 1,400 permitted 24 projects, there can certainly be a substantial 25 I don't know the number of what's being -amount.

3221 what's out there, but I do know there are a lot of 1 2 different proposals, a lot of different developers 3 developing projects but may not have gotten permits 4 at this time. And then, as I said, if there's a 5 shortfall, they can certainly go outside the state, 6 but I don't see that necessarily as something that 7 has to happen here. 8 Ο. To be clear, is the MAREC proposal for 9 the thousand megawatts wind specific or renewable 10 specific? 11 Renewable specific. Α. 12 MR. O'DONNELL: Thank you. That's all. 13 EXAMINER SEE: Mr. Mendoza? 14 MR. MENDOZA: No questions, your Honor. 15 EXAMINER SEE: Ms. Bojko? 16 MS. BOJKO: No questions. 17 EXAMINER SEE: Ms. Bair? 18 MS. BAIR: No questions. 19 EXAMINER SEE: Mr. Darr? 20 MR. DARR: Just a couple, your Honor. 21 2.2 CROSS-EXAMINATION 23 By Mr. Darr: 24 With regard to the capacity factor that Q. 25 you used, you indicated that what you were using was

3222 1 the available capacity over an annual period, 2 correct? 3 Α. Yes. 4 So when you calculate it, you assume the Q. available capacity for both peak and nonpeak hours, 5 correct? 6 7 Α. Yes. And when we're talking about the capacity 8 Ο. 9 factor used by PJM, that's the availability of the 10 resource during the summer peak hours, the five 11 summer peak hours, correct? 12 Α. Yeah. I mean, assuming that it usually 13 does occur in the summer, but yes. 14 So the contribution to the summer peak is Ο. 15 currently estimated based on a three-year rolling 16 average of about 13 percent --That's correct. 17 Α. 18 -- for a wind resource, correct? Ο. 19 Α. Yeah. 20 So the difference, roughly 20 or 0. 21 21 percent, is the differential between the peak and nonpeak with the availability being during the 2.2 23 nonpeak periods, correct? 24 The availability being? Α. 25 The availability of the wind unit being Ο.

3223 more available during the nonpeak periods, correct? 1 2 Well, I have to say I disagree with that Α. 3 to some degree. 4 Ο. Well, we know that the rolling average is 13 percent for --5 6 Α. Right. 7 -- an intermittent resource, right? Q. 8 Α. For? 9 A wind intermittent resource. Q. 10 Α. Well, the rolling average for purposes of 11 the reliability pricing model market being used is 12 that 13 percent, but there are -- have been peak 13 times, such as the polar vortex, where wind was 14 operating at a dramatically higher level of capacity 15 than most other resources out there at the time. And 16 actually from a pricing standpoint, there was a study 17 that showed that wind during that two-day period in 2014 saved a billion dollars for --18 19 Q. Going back to --20 Α. -- users. 21 Sorry. I didn't mean to interrupt. Q. 2.2 Going back to my question, though, for purposes of 23 measuring the summer peak, we're looking at the five 24 days in the period June through September in which 25 the system is the most heavily used, correct?

3224 Well, it can -- like I said, there can be 1 Α. 2 other peak times. 3 I understand that. But for purposes of Ο. 4 the PJM market, we're using the five summer peak days, correct? 5 For purposes of RPM, we're using those 6 Α. 7 five peak days. And during those five peak days over the 8 Ο. 9 last three years, the rolling average is 13 percent, 10 correct? 11 Α. I can't tell you exactly how they've 12 gotten to the 13 percent, but I know they used that factor as part of the RPM market. 13 14 And for each of the resources, and the --Ο. 15 this 13 percent is used for those resources that have 16 no operating history, correct, no or limited 17 operating history. 18 The 13 percent? Α. 19 Q. Yes. 20 Α. Yes. There could be an actual capacity factor that's being used once it's known, once a 21 2.2 project's in -- has a history. 23 And for the 11 plants or 11 projects that Ο. 24 you've identified, none of those has any operating 25 history since they currently are simply on the

3225 blackboard, correct? 1 2 MR. O'DONNELL: Objection. I think he's 3 referring to permitted projects. They're not just on 4 the blackboard. 5 Ο. Let me rephrase. For the 11 sited projects that you identify in your testimony, none of 6 7 those have any operating history, correct? Α. Correct. 8 9 MR. DARR: Thank you. Nothing further. 10 EXAMINER SEE: Mr. Kurtz? 11 MR. KURTZ: A little bit. Thank you, 12 your Honor. 13 14 CROSS-EXAMINATION 15 By Mr. Kurtz: 16 On redirect your counsel asked you Ο. 17 whether your thousand megawatt renewable proposal 18 would help if the state went to a mass-based approach 19 or rate-based approach, and your answer was it would 20 help either way. 21 Α. Well, that's what EPA has --2.2 Q. Is that your belief? 23 Yeah, I believe what the EPA has Α. 24 provided. 25 Okay. And when you say "state," what you Q.

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1 really mean are the fossil generators located within 2 the state of Ohio that have to comply under Section 3 111(d)?

A. That's correct. Yeah, it's the state.
Well, the state has to come up with its plan, but,
yes, those particular generators have to reduce their
carbon emissions by what EPA has required.

Q. Okay. So your proposal is to have a 9 thousand megawatts of renewable generation paid for 10 by the nonshopping customers of AEP Ohio to benefit 11 the unregulated merchant generators located 12 throughout the entire state of Ohio; is that correct?

A. It's a benefit to those ratepayers. It's not -- it's a benefit to the ratepayers because the state has to meet the CPP in a effective way, and this would be a dramatically improved cost-effective way of meeting that.

18 Generators have to meet the CO2 emission Ο. 19 requirement just like generators have to comply with 20 SO2 and generators have to comply with NOx. Why is 21 it reasonable to burden the nonshopping customers of 2.2 AEP Ohio to help the merchant generators located 23 throughout the state meet their environmental 24 requirements?

25

A. Well, they're, in essence, going to be

paying for those particular plants, so the continued
 operation of those continued plants.

Q. No. My question is why are you singling out the nonshopping ratepayers of AEP Ohio to take on a burden that helps the merchant generators located throughout the entire state?

A. Maybe I should -- I probably didn't articulate it as clearly as I could have, because what our proposal says clearly in my testimony is that we've talked about a nonbypassable surcharge, so that would be all customers that would actually pay that, so I'm sorry for the confusion.

Q. Okay. So now you're changing your testimony. Wouldn't the -- the physical generation would not go to the SSO customers, you're saying it would be paid for by all AEP Ohio customers?

17

A. That's correct.

Q. Okay. With that change in your testimony, why should all AEP Ohio customers take on a burden that will benefit all of the unregulated merchant generators located throughout the entire state of Ohio?

A. I think I just answered that question by
saying that they're getting the benefit of or
they're -- they should get the benefit of the

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1	cost-effective way of complying with the Clean Power
2	Plan, and I'm talking about the customers should get
3	the benefit because there would be a reduction in the
4	costs of compliance that those customers would
5	ultimately pay if they were using the AEP plan. In
6	this way, we're actually reducing the burden to those
7	customers.
8	Q. You're reducing the burden on the
9	unregulated merchant generators located throughout
10	the state of Ohio?
11	A. Well, and those prices are, in essence,
12	through the market process going to get passed on to
13	customers in Ohio.
14	Q. Well, why don't we just pick on the
15	ratepayers of a different utility to make them take
16	on this burden?
17	A. I'm talking opposite. I'm talking about
18	a benefit to ratepayers.
19	Q. Well, if it's a benefit, why don't we
20	triple your proposal? If it's a perpetual motion
21	machine where this is just all going to lower costs,
22	why don't we just quadruple it?
23	A. Well, I mean, you know, there's an
24	advantage to doing more. We thought a reasonable
25	approach to bring those plants 50 percent closer to

compliance made a lot of sense. 1 2 Ultimately, you do agree that it's Ο. 3 generators that have to comply with the Clean Power 4 Plan? They do, but it would be totally wrong to 5 Α. 6 assume that that doesn't have any impact on customers 7 in the state. Customers in the state will pay higher 8 Ο. 9 rates through the PJM to the extent that -- to the 10 extent PJM market prices go up, but that's going to 11 be -- that's how the customers will pay. Why should 12 they pay a second time by your thousand megawatt 13 renewable? 14 Α. They're not paying a second time. 15 They're actually going to be paying lower prices. 16 So in, other words, your proposal would Ο. 17 help all the ratepayers throughout the entire PJM 18 footprint by, in the first case, burdening the 19 nonshopping customers, but now we know it's changed 20 to burdening all AEP Ohio customers? 21 I disagree with your premise. Α. 2.2 MR. KURTZ: Okay. Thank you, sir. 23 EXAMINER SEE: Ms. Petrucci? 24 MS. PETRUCCI: No questions. 25 EXAMINER SEE: Mr. Satterwhite?

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1	MR. SATTERWHITE: Just one, your Honor.
2	
3	CROSS-EXAMINATION
4	By Mr. Satterwhite:
5	Q. Mr. Burcat, do you remember your counsel
6	asking you some questions about the feasibility of
7	implementing your plan in relation to the MAREC
8	permits that are already approved?
9	A. Yes.
10	Q. And it's true that you don't believe that
11	the 11 permitted wind facilities will be built absent
12	some long-term financing contracts like your
13	proposal, correct?
14	A. I can't say that for a surety but I can
15	say that having those long-term contracts makes a big
16	difference in this type of market for financing,
17	obtaining the appropriate financing, and given the
18	advantages of doing it. That's why we proposed it.
19	Q. And you don't know if any of the ones now
20	that are permitted already have long-term contracts,
21	correct?
22	A. I do not.
23	MR. SATTERWHITE: One second.
24	That's all I have, your Honor. Thank you
25	EXAMINER SEE: Mr. Beeler?

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1	MR. BEELER: No questions, thank you.
2	EXAMINER SEE: Mr. O'Donnell, did you
3	already move for the admission of your exhibit?
4	MR. O'DONNELL: I believe I did already
5	move for the admission of the exhibit, your Honor.
6	If I haven't, I would at this time move to introduce
7	the direct testimony of Mr. Burcat for MAREC as MAREC
8	1.
9	EXAMINER SEE: Are there any objections
10	to MAREC Exhibit 1?
11	(No response.)
12	EXAMINER SEE: Hearing none, MAREC
13	Exhibit 1 is admitted into the record.
14	(EXHIBIT ADMITTED INTO EVIDENCE.)
15	EXAMINER SEE: Thank you, Mr. Burcat.
16	THE WITNESS: Thank you very much.
17	MR. DARR: I'm not going to move IEU 16.
18	EXAMINER SEE: Say that again, Mr. Darr?
19	MR. DARR: I'm withdrawing IEU 16, your
20	Honor. I assume we'll leave the number intact,
21	but
22	EXAMINER SEE: You can come back around
23	and use IEU Exhibit 16 later.
24	MR. DARR: Thank you.
25	EXAMINER PARROT: Ms. Bojko, you may call

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 1
      your witness.
 2
                  MS. PETRUCCI: Your Honor, can we go off
 3
      the record for just a second? I just want to ask
      about the schedule for tomorrow to make sure I
 4
 5
      understand the order.
                  EXAMINER PARROT: Let's go off the
 6
 7
      record.
                  (Discussion off the record.)
 8
 9
                  EXAMINER PARROT: Let's go back on the
10
      record.
11
                  Ms. Bojko.
12
                  MS. BOJKO: Thank you, your Honors. At
13
      this time OMAEG calls witness Dr. Edward Hill to the
14
      stand.
15
                  EXAMINER PARROT: Dr. Hill, please raise
16
      your right hand.
17
                  (Witness sworn.)
18
                  EXAMINER PARROT: Very good.
19
                                 _ _
20
                      EDWARD W. HILL, PH.D.
21
      being first duly sworn, as prescribed by law, was
2.2
      examined and testified as follows:
23
                        DIRECT EXAMINATION
24
      BY Ms. Bojko:
25
             Q. Dr. Hill, could you please state your
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3233 name and business address for the record? 1 2 I'm Edward Hill. My business address is Α. 3 Page Hall, The Ohio State University, 1810 College 4 Road, Columbus, Ohio. 5 Sir, did you file testimony in this case Ο. on September 11th, 2015? 6 7 Α. I did. MS. BOJKO: Your Honors, at this time I'd 8 9 like to mark as OMAEG Exhibit 19 the prefiled direct 10 testimony of Dr. Edward Hill. 11 EXAMINER PARROT: So marked. 12 (EXHIBIT MARKED FOR IDENTIFICATION.) Sir, do you have in front of you what has 13 Ο. 14 been marked as OMAEG Exhibit 19? 15 Α. I do. 16 Was this testimony prepared by you or Ο. under your direction? 17 18 Α. It was. 19 Since filing your testimony, do you have Q. 20 any corrections? 21 Α. I prepared an errata sheet. I do. 2.2 MS. BOJKO: Your Honor, at this time I 23 would like to have marked as OMAEG 20 the errata 24 sheet of Dr. Edward Hill to his direct testimony 25 filed on September 11th, 2015.

3234 EXAMINER PARROT: So marked. 1 2 (EXHIBIT MARKED FOR IDENTIFICATION.) 3 Dr. Hill, do you have in front of you Ο. what has been marked as OMAEG Exhibit 20? 4 5 Α. I do. Is this the errata sheet with your 6 Ο. 7 changes you just referenced? 8 Α. It is. 9 Sir, did you also bring with you a copy Ο. 10 of the public record obtained from the legislative 11 committee, Energy Mandate Study Committee created by 12 law that was attached to your testimony as EWH-4? 13 Α. I did. 14 And have you confirmed the accurateness Ο. 15 of the copy of the public record of that which was 16 attached to your prefiled testimony? 17 Α. I did. 18 And are the copies identical? Ο. 19 Α. They are. 20 Ο. Sir, with the changes that are contained 21 in your errata sheet, if I were to ask you the same 2.2 questions today contained in your testimony, would 23 your responses be the same? 24 Are you asking did anything I put in the Α. errata sheet change my answers? 25

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1	Q. No. I'm just asking with the changes
2	that you made in the errata sheet, if I were to ask
3	you all the questions contained in your testimony
4	today on the stand, would your responses be the same?
5	A. They would be.
6	MS. BOJKO: At this time, your Honors, I
7	would like to move OMAEG Exhibits 19 and 20, subject
8	to cross-examination, and I tender the witness for
9	cross-examination.
10	MR. NOURSE: Your Honor, we prefiled a
11	motion to strike. I would like to ask a couple of
12	voir dire questions before redoing the motion to
13	strike and before proceeding with cross-examination.
14	EXAMINER PARROT: All right, Mr. Nourse.
15	MR. NOURSE: Thank you.
16	
17	VOIR DIRE EXAMINATION
18	By Mr. Nourse:
19	Q. Good morning, Dr. Hill.
20	A. Good morning.
21	Q. I'm Steve Nourse representing AEP Ohio in
22	this case. I just want to ask you a few preliminary
23	questions about the exhibits in your testimony EWH-1,
24	EWH-2, 3, and 4.
25	A. Uh-huh.

Ohio Power Company Volume XIII

3236 Okay. And I'll try to be expedient here 1 Ο. 2 and ask about those as a group. You let me know if 3 any of your answers differ as to 1, 2, 3, and 4, okay? Are you with me? 4 I am with you. I'm just going through to 5 Α. make sure I can identify all three of them there. 6 7 Yes, please. Take your time. Q. 8 Α. Yes. 9 In each of those four documents, did you Ο. 10 participate as an author for any of the documents? 11 I was the dean of the College for Urban Α. 12 Affairs and participated in the energy research in the college, and with EWH-2 I helped formulate the 13 14 methodology, was consulted on the project, and I was 15 part of the research team, but I was not an author. 16 Ο. And your name is not listed anywhere on 17 that document, is it? 18 Α. No, it is not. 19 Okay. And that EWH-2 was prepared Q. 20 specifically for the Ohio Manufacturing Association? 21 Α. It was. 2.2 Ο. And so that's an advocacy piece that was 23 done for a fee? 24 Α. It was not an advocacy piece. It was a 25 piece of research. There was no contracted or

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1	intended result. It was to and it's databased and
2	factual. There was a fee involved because it was
3	prepared by our energy research group within the
4	Levin College of Urban Affairs. I say "ours,"
5	because I retired from that job in June, and that was
6	essentially costs recovered.
7	Q. So CSU did this report for a fee for OMA?
8	A. Correct.
9	Q. And with regard to the other three
10	documents, 1, 3, and 4, did you participate in any
11	way in the preparation of those documents?
12	A. I used the documents not to build my
13	testimony, but to corroborate. I used the documents
14	to illustrate my points, but to answer your question,
15	I did not participate in writing those documents.
16	MS. BOJKO: Excuse me.
17	Q. You're not familiar with
18	MS. BOJKO: Excuse me, I can't hear you,
19	Dr. Hill. If you would speak up, I would appreciate
20	it.
21	A. I will.
22	Q. So you're not familiar with any of the
23	process or the factual details about how those
24	documents were prepared?
25	A. I've been for 31 years an economist and

degreed planner, a public policy analyst; and for 1 2 more than ten years, I edited the leading economic 3 development journal, Economic Development Quarterly. 4 As such --Dr. Hill, I'm sorry for interrupting. 5 Ο. Ι just asked you a very simple, straightforward, narrow 6 7 question. I didn't ask you anything about your 8 background. 9 MS. BOJKO: Your Honor, I object. We've historically allowed the witness to speak and then 10 11 take up any concerns after the witness has finished 12 his answer and not interrupt the witness. MR. NOURSE: Well, this is 13 14 not cross-examination, your Honor. This is voir 15 And I asked him a very narrow question, and dire. 16 the answer so far has nothing to do with my question. 17 MR. DARR: Just to make the record clear, 18 I don't know that there's any distinction between the 19 cross-examination during a voir dire or during the 20 remainder of the matter. I leave to the merits, 21 though, the question of whether or not the answer was 2.2 responsive. 23 EXAMINER PARROT: I'm going to overrule 24 your objection, Mr. Nourse. I don't know if you need to start over 25

3239 1 maybe, Dr. Hill. Go ahead and do that, please. 2 The point I was trying to make is that in Α. 3 my experience, I used other people's research and I 4 look at the methods and the data that are contained in that research and evaluate it based on that. 5 So T did not write the testimony that -- the pieces that 6 7 were submitted, but I did evaluate the methods used and the data submitted based within the context of 8 9 the -- within the pieces themselves, and they are 10 explanatory as to the methods used. 11 Let me ask you again. Do you have any Ο. 12 direct factual knowledge about how the documents were 13 prepared for Exhibits 1, 3, or 4? 14 MS. BOJKO: Objection. 15 EXAMINER PARROT: Overruled. 16 I do have factual knowledge based on Α. 17 what's presented within those documents themselves. 18 They are very clear in the way they lay out the 19 research method and the data used. 20 Ο. So your knowledge about those documents 21 is -- was based on reading them? 2.2 Α. Correct. 23 Ο. Okay. 24 MR. NOURSE: Thank you, Dr. Hill. 25 Your Honor, I'd like to renew the motion

1	to strike we prefiled on October 15th. Unless
2	you'd like me to, I'll skip reviewing all the
3	arguments made. I just wanted to support the factual
4	statements that were made and the factual
5	characterizations that we gleaned from reviewing the
6	testimony about those exhibits, and so I renew the
7	motion to strike at this time.
8	EXAMINER PARROT: Thank you, Mr. Nourse.
9	Your response, Ms. Bojko, to the motion?
10	MS. BOJKO: Yes. Thank you, your Honor.
11	As an initial matter, and as AEP has previously
12	conceded in response to similar motions to strike AEP
13	Company Witness Hawkins' testimony in AEP
14	11-346-EL-SSO proceeding, the Commission is not
15	strictly bound by the Ohio Rules of Evidence.
16	In a December 14, 2011, entry in the same
17	proceeding, the Commission explained that when it has
18	deemed it appropriate, it has allowed the admission
19	of hearsay testimony. The Commission explained that
20	hearsay rules are designed, in part, to exclude
21	evidence not because it is not relevant or probative,
22	but because of concerns regarding jurors' inability
23	to weigh evidence appropriately, and these concerns
24	are inapplicable to administrative proceedings.
25	There are reasons that if AEP is claiming

1 hearsay, as they do in their motion, there are 2 reasons that hearsay may be admitted by the 3 Commission. Some of the attachments referenced by 4 Dr. Hill, as you just heard today, he has actually 5 had experience, and I think it might be helpful to go through each of the motions to strike and the 6 7 testimony related to it because there are different rationales for each of the documents. 8

9 One's a public record, so it's an 10 exception to the hearsay; one, the COMPETE report, 11 was used to support Dr. Hill, and there are similar 12 provisions in AEP Exhibit 14, the chart that AEP provided and was admitted. This is the exact same 13 14 testimony in front of a House Energy and Technical 15 Committee. It contains the same chart and discussion 16 of material that's contained in the COMPETE report.

And additionally -- I can go through each one, your Honor, but as a general matter there are exceptions to hearsay. Many of these attachments meet those or there's another reason why they should be allowed in the record.

I would also note that prior to reviewing each of those items, AEP has cited the FE hearing across the hall as a basis for granting the motions to strike in its motions filed with the Commission

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3241

without the full discussion or the context of that
 hearing.

As your Honors explained to the parties previously, I believe on October 6th, this is not the FirstEnergy hearing. The Examiners are not bound by the rulings of other Examiners in the other proceedings as it relates to the procedural motions, including motions to strike.

9 The prefiled testimony has been filed 10 since September 11th, 2015, and the company's 11 waited until after the First Energy hearing to file 12 its motion. Additionally, even if the rulings were considered, AEP has mischaracterized or misstated 13 14 what was or was not struck in the FirstEnergy 15 hearing, including comparable exhibits that have 16 already been admitted in the FirstEnergy hearing.

So now, your Honor, if you'd like to go through, I don't know what your desire is, we can go through each of the attachments and the supporting testimony. Would you like to hear arguments about which hearsay exception they fall into, things of that nature, at this time?

EXAMINER PARROT: I'll leave that to you, Ms. Bojko, to decide if you think you need to do that or not. This is your opportunity to respond. I

3243 recognize the motion was fairly recently filed, so --1 2 MS. BOJKO: I appreciate that. 3 EXAMINER PARROT: -- do what you need to 4 do. 5 MS. BOJKO: Thank you, your Honor. Specifically, Attachment EWH-1, 6 7 Dr. Hill's statements stand on their own. There is 8 no reason to strike his statements. He is giving his 9 expert opinion and his own conclusion regarding the 10 proposal in this case. And then he adds an example. 11 The footnote actually says "for example" of a 12 supporting opinion through a footnote. 13 Dr. Hill is offering the report to show 14 that others in the industry agree with him and hold 15 similar opinions and have drawn similar conclusions, 16 as he explained this morning. He has looked at 17 the methodologies used in the reports, and he has 18 tested that; therefore, the report is not hearsay as 19 it is not offered for the truth of the matter 20 asserted therein. He's demonstrating that the energy 21 industry is interested and concerned about the PPA 2.2 proposal. 23 We agree that the report states that it 24 should not be used for determining investment 25 recommendations; however, AEP in its motion filed

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1	with the Commission leaves out what the report
2	explicitly states that it does do. It is a
3	discussion piece focused on the topic of the U.S.
4	energy sector with respect to investment policy and
5	regulatory trends and the risks of stranded costs.
6	Moving on to EWH-2, the Levin report, I
7	think the voir dire clearly demonstrates that
8	Dr. Hill was sought out to do the project. He agreed
9	to do the project with his team, and the project was
10	done under his direction and supervision.
11	Specifically, he was part of the
12	development of the report. He had input into the
13	methodologies used in the report. He oversaw the
14	research and writing of the report. He was part of
15	the economic metrics of the report, and he also did a
16	technical review of the report.
17	He has the necessary educational
18	qualifications, and an analysis was performed by him
19	or under his direction. Although he did not
20	ultimately author the report, just as AEP Witness
21	Allen did not write his economic development reports,
22	Dr. Hill had more involvement in the research,
23	methodologies and underlying analysis than Mr. Allen
24	in his reports that were admitted over objections.
25	Additionally, the report is admissible

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under Ohio Rule of Evidence 803(6), the business 1 2 records exception. Under Ohio law to qualify for a 3 business records exception, a record must meet the 4 following criteria, which Dr. Hill just explained. It is a record of the business of the College of 5 Urban Affairs that he was dean of, he can attest to 6 7 that. It is a business record as required by the 8 rules. 9 Furthermore, Dr. Hill has personal 10 knowledge of this report and can lay a proper 11 foundation and can be cross-examined on the report. 12 So consistent with your ruling regarding Mr. Allen's economic development reports, we respectfully request 13 14 that Dr. Hill's also be admitted. 15 As for Attachment EWH-3, this is a 16 COMPETE study. As I pointed out, this report contains identical information to data contained in 17 18 AEP Exhibit 14 that was admitted into the record. 19 Figure 1 on page 3, is the same data, and the COMPETE 20 report explains that data. Dr. Hill's statements 21 regarding this report stand on their own. He, again, 2.2 is giving his expert opinion and his own conclusion 23 regarding the proposal in this case, and then he adds 24 an example of supporting opinion through a footnote, 25 thus, even if the COMPETE report is struck,

3246 Dr. Hill's statements in his testimony should remain. 1 2 Moving on to EWH-4, this is the testimony of Andrew Ott on behalf of PJM Interconnection before 3 the Ohio Energy Mandate Study Committee. First, this 4 5 is the same type of testimony that was allowed for AEP Exhibit 14, which was Ken Rose before the 6 7 Michigan House Energy and Technology Committee. Ιt is also a PJM document that contains a compilation of 8 9 data of the PJM region. It's an exception to hearsay 10 under 803(17). 11 Additionally, other reports of PJM have 12 been admitted. For example, AEP Exhibit 35 and 36 and Sierra Club Exhibit 32 are comparable AEP -- or, 13 14 excuse me, PJM data compilation market reports. 15 Also, your Honor, this document is a 16 public record and, thus, it falls under the hearsay exception, Rule 803(8). The Energy Mandate Study 17 18 Committee is a government committee that was created 19 by Ohio law, Senate Bill 310, specifically. The 20 committee regularly hears testimony in the course of 21 fulfilling its public mission to study Ohio's 2.2 renewable energy, energy efficiency, and peak-demand 23 reduction mandates. It is on the legislative website 24 at http://EMSC.legislature.oh.gov. 25 Pursuant to Rule 902(4), the testimony is

1 self-authenticating as a copy of an official record 2 or report or entry therein, or a document authorized 3 by law to be recorded or filed and actually is 4 recorded or filed in a public office, certified as 5 correct by the custodian or other person authorized 6 to make the certification.

We have a true and accurate copy of the testimony available on the legislative committee's website. We brought that with us here today, your Honor, and we can provide the Bench with a copy of both the public website where the testimony can be found and the website attesting to it being a public record filed with the committee.

Furthermore, in voir dire or, actually, in direct testimony the witness testified to the accurateness of the copy of the public record that was attached to his testimony pursuant to Evidence Rule 100(5), thus, we have met the standards for providing a copy with the testimony on September 11th, 2015.

There's no foundation required with self-authenticating documents, thus, the public record is an exception to hearsay and it is self-authenticating -- it is self-authenticating, and, thus, there is no additional foundation

1 required.

2	The document itself, the Andrew Ott
3	testimony, is relevant. The issues discussed in the
4	PJM testimony are directly on point of what the
5	energy committee was studying. There is ample
6	resources in the PJM region and Ohio and whether new
7	energy is being built and whether reliability
8	concerns exist for Ohio.
9	AEP has raised these issues before the
10	Commission, and this testimony is directly responsive
11	to that and is very similar to other PJM documents
12	that have already been admitted in the record.
13	Your Honor, AEP only touched on the
14	Attachments EWH-1, 2, 3, and 4. I believe their
15	motion to strike went well beyond that, included
16	other footnotes and other line items and pieces of
17	testimony. I'm not sure your preference. He only
18	spoke to the first four attachments at this time.
19	EXAMINER PARROT: Well, again, this is
20	your opportunity to fully respond to the motion as
21	filed, so let's do that, please.
22	MS. BOJKO: Thank you.
23	EXAMINER PARROT: If you have something
24	else to add, go ahead.
25	MS. BOJKO: Thank you. I didn't want

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3248

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1	to
2	EXAMINER PARROT: No. Go ahead.
3	MS. BOJKO: Okay. In addition to the
4	footnotes and the testimony that are associated or
5	correlated with the attachments that we just went
6	through, AEP has moved to strike page 9, footnote 10
7	and 11. Page 9, the footnote 10 is the Lord and
8	Ruble law review article. This is a law review
9	journal from the South Carolina School of Law
10	published regularly on a semiannual basis.
11	The report is admissible under Ohio Rule
12	of Evidence 803(6), the business records exception.
13	The article directly addresses the economic
14	development issues before the Commission and supports
15	Dr. Hill's statements in the record. This, again, if
16	you're looking at precedent, this footnote was not
17	struck in the FirstEnergy case. It's seen as being a
18	reliable copy and an authoritative piece.
19	Page 9, footnote 11, AEP has moved to
20	strike the Buelow and upgrades Trkulja article. This
21	is the Area Development Magazine. It's a trade
22	periodical for economic development professionals
23	and, thus, it is self-authenticating under Rule
24	902(6).
25	The statements relied upon by Dr. Hill

1 are an exception to hearsay under Rule 803(18) as a 2 learned treatise. A statement contained in a 3 published periodical on a subject of history, 4 medicine, or other science or art established as 5 reliable authority by the testimony or admission of 6 the witness, or by other expert testimony, is allowed 7 if relied upon by the expert witness in direct examination. 8

9 On voir dire Dr. Hill explained some of 10 such statements that he relies upon in his work. The 11 statements under the exception of the hearsay rule 12 may be read into evidence, and Ohio law allows 13 experts to rely on background knowledge in 14 establishing their qualifications in forming their 15 That's Worthington City Schools versus opinions. 16 ABCO Insulation, 84 Ohio APP 3d 144, 1992. The 17 background knowledge in the form of out-of-court 18 statements of textbook authors, colleagues and others 19 that form much of the basis of the expert's training 20 and education.

Area Development Magazine is such -- is a periodical. Dr. Hill has relied on the periodical over the years to form his expert opinions. These works are subject to peer review, and Area Development Magazine is known for their rigor and

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1	quality of work by economic development experts.
2	Furthermore, Dr. Hill will tell you this
3	published periodical compiles and publishes economic
4	development data on critical location factor. It is
5	considered a data source in the economic development
6	industry, thus, even if the reports were offered for
7	the truth, they are admissible under the market
8	reports exception to the Hearsay Rule 803(17).
9	In 803(17) provides that market
10	quotation, tabulations, lists, directories, or other
11	published compilations generally used and relied upon
12	by the public or by persons in particular occupations
13	are not excluded by the hearsay rule. And this is
14	exactly what we have here. AEP put the economic
15	development issues at issue, and Dr. Hill is
16	responding to those.
17	Lastly, I would add with regard to
18	footnote 11, that other market reports have been
19	admitted by AEP in this case.
20	AEP then moved to strike page 17,
21	footnote 27. I understand the Commission's
22	unwillingness at times to allow newspaper articles or
23	statements contained therein as evidence; however,
24	this article is no different than AEP 23, which was a
25	press release by Energy, and AEP 21, which is an

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1	article from the Sierra Club regarding natural gas
2	that have already been admitted into the record.
3	The newspaper article is
4	self-authenticating under Rule 902(6) and,
5	additionally, we're not offering the newspaper
6	article or statements contained therein as evidence
7	in this instance. Dr. Hill is merely citing an
8	article where he made was made aware of the
9	occurrence of the bankruptcy
10	Actually, as an economist, Dr. Hill is
11	aware of economic upheavals in various industries.
12	He lived in Cleveland for years. He has personal
13	knowledge of this statement he's made, and even if
14	the Commission did not want to retain the cite to the
15	newspaper article, Dr. Hill's statements should stand
16	and they can stand on their own.
17	AEP moved to strike Attachment EWH-5.
18	MR. NOURSE: No.
19	EXAMINER PARROT: No.
20	MS. BOJKO: Well, you moved to strike
21	page 20, footnote 29, in its entirety, and footnote
22	29 contains the PJM Attachment EWH-5. So if that
23	wasn't the intent, then I don't have to go into
24	MR. NOURSE: That's correct. I believe
25	we intended to strike everything before or up to the

3253 semicolon before the "see also." 1 2 MS. BOJKO: Okay, we can agree. 3 MR. NOURSE: Yeah. 4 MS. BOJKO: If you could bear with me 5 just one minute, I think I touched on all of them, 6 your Honor. I believe I touched on all of them. 7 MR. NOURSE: Okay. Your Honor, may I 8 briefly respond? 9 EXAMINER PARROT: You may. 10 MR. NOURSE: First of all, let me just 11 cover the items that she covered at the end. On 12 footnote 10, I don't believe we --13 EXAMINER PARROT: You did not. 14 MR. NOURSE: -- asked for footnote 10. 15 On footnote 11, I did forget to ask him 16 in voir dire about that, and based on her argument, 17 I'll withdraw the motion regarding footnote 11. So 18 nice job, we agree again. 19 MS. BOJKO: Thank you. 20 MR. NOURSE: On the newspaper article, 21 you know, I think -- I'm not going to go into the 2.2 reasons why prior exhibits were admitted in this 23 case, but I don't think we've had any newspaper 24 articles, and I would note that we did not move to 25 strike the text associated with that statement that

3254 was based on his knowledge, and we didn't move to 1 strike the text, just the newspaper article citation. 2 3 MS. BOJKO: Your Honor. I was just going to agree that we'll stipulate to strike the footnote. 4 5 MR. NOURSE: Okay. Thank you. 6 Then let me go back to the main thrust of 7 our motion to strike on the Exhibits 1, 2, 3, and 4, 8 and briefly address those again. First of all, it's 9 interesting because Ms. Bojko cites the FE hearing at 10 times but then wants to distinguish it. I think the 11 fact is there is -- there should be some level of 12 consistency at the Commission and certainly in 13 proceedings involving the same documents, so we made 14 note of the fact that those rulings exist. 15 And certainly Dr. Hill's knowledge and --16 lack of knowledge and lack of participation in the 17 creation of those documents is the same as between 18 the two proceedings. 19 And while I agree that there's certainly 20 the concept the Commission is not strictly bound to 21 the Rules of Evidence, I think, you know, dumping 2.2 these kind of hearsay documents into the record goes 23 way beyond the latitude that would be afforded in an 24 administrative hearing. 25 And so let me just go through the 1, 2,

3, 4, again. No. 1, you know, Ms. Bojko is saying 1 2 they're not offering this as proof, but I think it's 3 obvious that is the case from the statements in 4 Dr. Hill's testimony and the reliance on that exhibit. He had no involvement whatsoever. 5 His knowledge, you know, is strictly related to reading 6 7 the document after it was created. There's no 8 hearsay exception that applies here. 9 Exhibit 2, I think Ms. Bojko overstated 10 what the witness said about this, especially in her 11 comparison to Mr. Allen's economic development study 12 where he testified extensively how he set the 13 parameters of that study. He oversaw the 14 preparation. He reviewed it and had extensive 15 discussion with folks directly involved with it. 16 Dr. Hill here was not an author, he's 17 listed nowhere on that document. He said he had a 18 review at some point, but certainly it wasn't 19 prepared under his direction. And it was a paid 20 advocacy piece. It's not a learned treatise and it's 21 not an objective, you know, peer-reviewed, economic 2.2 article. It's a paid advocacy piece. 23 Exhibit 3, actually with Exhibit 3 and 24 Exhibit 4, I believe the arguments were made about 25 AEP Exhibit 14 which was admitted in conjunction with

Dr. Rose's testimony, and this exhibit, Exhibit 14, is something that Dr. Rose was directly involved and had personal knowledge about and was on the stand subject to cross-examination about at the time that that went into the record.

And, you know, with the legislative 6 7 testimony, again, I think the Commission has a 8 consistent practice of excluding that. It clearly, 9 you know, can't be saved by the public record 10 exception. And we're not questioning whether there's 11 a certified copy available or not. It's the fact 12 that the person, in this case either Janine Migden or 13 Andy Ott, is not appearing here and is not subject to 14 cross-examination, and I think has been consistently 15 excluded by the Commission when legislative testimony 16 is proffered.

Certainly I think the only exception I'm aware of is if it involves, you know, a party that's in the case, like the utility. And I believe that's one of the issues going on with the FirstEnergy hearing down the hall.

22 So that's it, your Honor. I think our 23 motion should be granted.

24EXAMINER PARROT: Thank you, Mr. Nourse.25Okay. I'm sure you'll not be surprised

3257 1 to hear the Bench is going to grant in part and strike in part or, I'm sorry, grant in part and deny 2 3 in part to strike portions of Dr. Hill's testimony 4 and certain exhibits attached to that testimony. 5 Ms. Bojko, I think you said at the 6 outset, you recognized that the Commission is not 7 strictly bound by the Ohio Rules of Evidence, that is 8 a correct statement, as I understand it. I also 9 agree that maybe, perhaps more often than not, the 10 Commission has allowed hearsay into the record and so 11 I'm just going to say that at the outset. 12 But let's kind of go through this, not 13 item by item, but I am going to just -- the portions 14 that I'm agreeing with Mr. Nourse on, I'm going to 15 single those out, and then everything else we are 16 going to allow to stand. 17 So the first here, let's take this, and I 18 think you two resolved some of these for me already, 19 so I just want to make sure I understood kind of what 20 you were agreeing to as we went through this. But on 21 page 9, footnote 11, let's start there. 2.2 MR. NOURSE: Yes. And we withdrew our 23 motion to strike. 24 EXAMINER PARROT: All right. So on that 25 footnote, we're going to leave in its entirety to

3258 1 stand, then, based on that. 2 Let me see. A couple of the other, you 3 also discussed I think on page 17, footnote 27, and I think on that one, Ms. Bojko, you agreed to --4 MS. BOJKO: Strike that. 5 EXAMINER PARROT: -- strike that from the 6 7 record. MS. BOJKO: Strike the footnote, not the 8 9 testimony itself. 10 EXAMINER PARROT: Right, got that. Ι 11 just wanted to get that clear at the outset. 12 All right. Then let's turn to page 18. 13 Let's see, actually, no. I'm sorry. It's page 19, 14 footnote 28. There we are going to strike the 15 reference to Ms. Migden Ostrander's testimony, so the 16 first part of that footnote will stand. It's just 17 the second part that refers to her testimony that we 18 are going to strike. 19 And then page 20, footnote 29, which is 20 the footnote to Andrew Ott's testimony and the exhibits that goes along with that, which is 21 2.2 Attachment EWH-4, we're going to strike those from 23 the record. 24 The reference in footnote 29, as you 25 mentioned, Ms Bojko, to Attachment EWH-5, though,

that stands. 1 2 MS. BOJKO: Okay. 3 EXAMINER PARROT: All right. Is that clear? Clear as mud? So anything I didn't mention, 4 we are denying the motion to strike, those items. 5 6 MR. DARR: Just so it's clear, so EWH-4 7 is stricken? 8 EXAMINER PARROT: Is stricken, yes. 9 MR. DARR: In its entirety? 10 EXAMINER PARROT: In its entirety. 11 MS. BOJKO: Your Honor, the testimony, 12 however, associated on that page stands; is that 13 correct? 14 EXAMINER PARROT: Right. I think is it 15 just the one, yeah, the one sentence there stands. 16 That's right, Ms. Bojko. Thank you for that clarification. 17 18 MS. BOJKO: Thank you, your Honor. 19 EXAMINER PARROT: And with the other 20 exhibits, Mr. Nourse, I will just say we are going to 21 allow those to stand and the Commission will 2.2 determine what weight to give those exhibits. 23 Thank you, your Honor. MR. NOURSE: 24 EXAMINER PARROT: Any other motions? 25 Anything before we get started with our

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3260
      cross-examination?
 1
 2
                  (No response.)
 3
                  EXAMINER PARROT: Mr. Mendoza?
 4
                  MR. MENDOZA: No questions, your Honor.
 5
                  EXAMINER PARROT: Ms. Petrucci?
 6
                  MS. PETRUCCI: No questions.
 7
                  EXAMINER PARROT: Ms. Bair?
                  MS. BAIR: No questions.
 8
 9
                  EXAMINER PARROT: Mr. Darr?
10
                  MR. DARR: No, thank you.
11
                  EXAMINER PARROT: Mr. Kurtz?
12
                  MR. KURTZ: No questions.
13
                  EXAMINER PARROT: Mr. Nourse?
14
                  MR. NOURSE: Thank you.
15
                               _ _ _
16
                        CROSS-EXAMINATION
17
      By Mr. Nourse:
18
                  All right, Dr. Hill, now we can talk
             Ο.
19
      about your testimony. Don't you love attorneys? No,
20
      don't answer that.
21
                  (Laughter.)
2.2
             Α.
                  I was sworn in.
23
                  All right. Let me ask you a question
             Ο.
24
      about kind of the scope of what you've done in this
25
      case and the analysis that you've performed in
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3261 1 connection with the application here. 2 So is it correct you've not done a study 3 or specific quantitative analysis of the impacts of 4 the PPA proposal on AEP Ohio customers or the Ohio economy? 5 That's incorrect. I performed a -- I 6 Α. 7 built an economic model and a public choice model of the impact of the PPA proposal as submitted, and 8 9 the -- and I did a review of the impact analysis that 10 AEP presented, but I did not run statistical --11 independent statistical models, if that's what you're 12 asking. And you didn't reach quantitative 13 Ο. 14 conclusions about the economic impact of the PPA 15 proposal on AEP Ohio customers or the Ohio economy, 16 did vou? 17 Α. I reached directional impacts and conclusions, qualitative. 18 19 Q. Yes. Thank you. 20 On the bottom of page 6, your direct 21 testimony, and carrying over to page 7, you make a 2.2 statement about your opinion about a chilling effect 23 on future investments by CRES providers. Do you see 24 that? 25 I do. Α.

1 And what, in your mind, or to your Q. 2 knowledge and understanding, what investments have 3 CRES providers made in Ohio to date? 4 Α. There are standing now five large 5 investments in natural gas power plants that are 6 going forward. One was on the books, this is the 7 Avon Lake Plant, is staying with coal, not moving to 8 natural gas. The investments are being made and 9 supported by hedge funds largely. The role of the 10 CRES providers would be executing long-term contracts 11 to purchase power from those plants. 12 Ο. So that would be a future investment, 13 correct? 14 Α. Exactly. I mean, all of the work that 15 I've done has been looking to the future. In working 16 and thinking about the structure of markets with 17 great uncertainty of prices going forward, you try to 18 do the modeling so that logic models are frequently 19 more powerful and insightful than quantitative 20 models. 21 Again, I appreciate your clarification. Q. 2.2 But going back to my question about whether CRESs 23 have made investments to date in Ohio --24 I believe the answer is no. Α. 25 Q. Okay. Thank you.

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1	Let me ask you to turn to page 10, all
2	right, and in lines 3 through 6 there you're talking
3	about energy-intensive or electricity-intensive
4	customers, and I guess this would be manufacturing
5	customers that you're referring to here, correct?
6	A. In this case, the answer is yes.
7	Q. And you talk about an energy- or
8	electric-intensive customer being one that spends
9	roughly 2 to 6 percent of every dollar on
10	electricity, correct?
11	A. Correct.
12	Q. Okay. So I want to go through an example
13	with you.
14	MR. NOURSE: Your Honor, can we approach?
15	EXAMINER PARROT: You may.
16	MR. NOURSE: I'd like to mark AEP Ohio
17	Exhibit 37.
18	(EXHIBIT MARKED FOR IDENTIFICATION.)
19	Q. Okay. Dr. Hill, the first two pages of
20	this exhibit are some tariff sheets for AEP Ohio that
21	apply to GS-3 and GS-4 customers. Are you aware of
22	what a GS-3 or a GS-4 customer is?
23	A. I'm aware of what GS usually stands for.
24	The subcomponents 3 or 4 I'm not aware of.
25	Q. Okay. I think you can tell from these

3264 tariff sheets that they're large capacity demand and 1 2 energy users. If you look at that, it would 3 encompass certainly manufacturing customers, okay? 4 Can you assume that with me? 5 Α. Yes. And you see the -- let's go with the 6 Ο. 7 first page. This is called the "Generation Capacity Rider." Do you see that at the top? 8 9 Α. Yes. 10 Ο. And do you see where further down at the 11 bottom of the table, GS-3 and GS-4 rates there for 12 capacity are in cents per kWh and dollars per month 13 at the top of that column to the far right? 14 Α. Yes. 15 Okay. And so you see those two rates, Ο. 16 0.98100 for GS-3 and 0.39000 for GS-4? 17 Α. Yes. MS. BOJKO: Objection, your Honor. 18 19 Q. And the second page --20 MR. NOURSE: I'm sorry. MS. BOJKO: I objected. I've given 21 2.2 counsel many questions and I still haven't heard any 23 foundation that the witness has ever seen this 24 document, and now we're starting to read numbers into 25 the record without that foundation.

3265 MR. NOURSE: Well, yeah, your Honor. 1 Ι 2 want to get to page 3, which is my example, and it 3 relates to what his testimony was about the impact on 4 energy-intensive customers. So, I mean, I think I would be able to use AEP Ohio Commission-approved 5 6 tariffs in that context. I was trying to explain to 7 him what they are, and then I want to go into the 8 example that's on page 3. 9 Is there an objection to AEP Ohio tariffs 10 being --11 EXAMINER PARROT: Well, the witness has 12 already answered this question, so let's see where we 13 go and go from there. 14 MR. NOURSE: Okay. 15 (By Mr. Nourse) Dr. Hill, same thing on Ο. 16 page 2. This one's entitled "Generation Energy Rider." Do you see that? 17 18 Α. Yes. 19 And the rates listed for GS-3 and GS-4, Q. 20 it's the same rate for winter and summer, 4.38100. Do you see that? 21 2.2 Α. Yes. 23 Now, I want to turn to page 3. This is 0. 24 the example I wanted to talk to you about and go 25 through some calculations with you. At the top of

	3266
1	the page, we've got 43,652 gigawatt-hours. Does that
2	sound about right for AEP Ohio's connected load?
3	MS. BOJKO: Objection. Your Honor, now
4	we're going to a document that has absolutely no
5	foundation. He's attached it to a tariff, but I
6	don't believe it's part of the tariff. In fact, I
7	know it's not part of the tariff, and there's been no
8	foundation for the question that he just asked or
9	anything else.
10	MR. NOURSE: Well, your Honor, I've
11	indicated on the page here that it's from Mr. Allen's
12	testimony, which is already in evidence, and
13	representing to the witness that's what it is. And
14	the rest of everything that's on this page is math,
15	so I wanted to walk through that.
16	EXAMINER PARROT: I'm going to overrule
17	the objection.
18	If at any point, Dr. Hill, you're not
19	able to follow along with what Mr. Nourse is trying
20	to ask you to do, just let us know that. All right?
21	THE WITNESS: I will be glad to do so.
22	EXAMINER PARROT: Thank you.
23	Q. (By Mr. Nourse) So I want to do some
24	examples here to try to flesh out your point about
25	the energy-intensive customer. And so do you agree

3267 with me, though, mathematically that if you have --1 2 if a rider were recovering 43.6 million across 43.6 3 gigawatt-hours, that would equal a dollar per 4 megawatt-hour? 5 Α. Yes. Okay. And then there's two examples on 6 Ο. 7 this page, GS-3 at the top and GS-4 at the bottom, and you see where we've created a total rate for GS-3 8 9 that uses those two rates we just went through, the 10 .0098 and the .0438? 11 Α. Yes. 12 Q. And then it comes up with a total rate of 5.36 cents per kWh? Do you see that? 13 14 Α. I see it. 15 And then that's equivalent to \$53.60 per Q. 16 megawatt-hour, right? 17 Α. Yes. 18 MS. BOJKO: Your Honor, again, I'm going 19 to object. There's nothing in the record that says 20 what Gen-C rate is, Gen-E rate, if it's appropriate 21 to average those, which is apparently what he's 2.2 doing. He's just reading it into the record and 23 asking the witness to agree with what he's reading. 24 There are no questions here. 25 If he wanted to do this, he could have

3268 done it with Allen to actually -- would probably have more knowledge of the tariffs that he's trying to read into the record. MR. NOURSE: Yeah. Your Honor, this is a cross-examination exhibit and, you know, I'm using information that's, again, it's already in the record or in a Commission-approved tariff to do a simple example here. Again, the rest of everything that's on this page is simply mathematics at this point. I'm trying to walk through, and I think the witness has been following it fine and is with me because this relates, again, to his testimony on page 10 and what that really means in terms of actual energy-intensive customers. EXAMINER PARROT: The objection is overruled. So, Dr. Hill, you know, do you see, we've 0. already got to the point of the dollars per megawatt-hour being equivalent to 43.6 million being collected through the rider. And so what these tables represent are a dollar, which is the 43.6 million, \$2 which doubles that, and \$3 which triples that, and says if you were flowing in the \$3 example, 130.8 million through the rider, it would

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3269 be a rate increase for GS-3 of the 5.36 cents per 1 It would increase by 5.6 percent. Do you see 2 kWh. 3 that? 4 Α. I see it. And then do you follow the other columns 5 Ο. 6 where if you were going to take a 5.6 increase to a 7 2 percent customer, a 2 percent energy-intensive customer, then you would multiply 056 -- excuse me, 8 9 .056 by .02 and get 0.112. Do you follow that? 10 I'm sorry, if I can -- I follow the math. Α. 11 Actually, it's arithmetic, but that's okay. 12 Q. Yes. It's arithmetic. So your column heading 13 Α. 14 I believe says this is the percent increase to the 15 total bill cost of production for 2 percent, someone 16 who uses -- where 2 percent of the total cost of 17 goods goes to energy? 18 Yes. Well, the column rate increase says Ο. 19 how much the actual rate would increase, but then 20 applying it to a customer that here stated on page 10 21 has a 2 percent of every dollar energy-intensive 2.2 impact, so that's what those columns represent, 23 2 percent --24 So just to make certain we're talking the Α. 25 same language, so that this arithmetic shows that the

3270 total cost of production that is experienced by the 1 2 customer will go up by 1.1 mils. 3 Yes. Just like in your testimony you say Ο. 2 percent of every dollar or 6 percent of every 4 dollar, that's the range you give for energy 5 intensive, correct? 6 7 Α. Right. 8 Ο. So if you have these rate increases of 9 1.8, 3.7, 5.6 percent for a GS-3 customer, the cost 10 impact on every dollar would be the -- for the 11 \$1 example, .036 percent, and the 6 percent customer 12 would experience 0.108 percent. Right. So these two columns should be --13 Α. 14 have a heading on top of them "Increase in Total Cost 15 of Production." 16 Okav. That's fair. Ο. 17 Α. Okay. All right. And then if we similarly go 18 Ο. 19 through the GS-4 example on the bottom half of the 20 page, we then also illustrate the 2 percent 21 energy-intensive customer for the 1, 2, and 3 dollar 2.2 examples, and we also go through the 6 percent 23 energy-intensive customer example for the 1, 2, and 3 24 dollar examples. Do you see that? 25 Α. I see it.

	3271
1	MS. BOJKO: And, your Honor, objection.
2	Sorry. Just so the record's clear, I don't want to
3	interrupt, but he doesn't have a calculator up there.
4	Mr. Nourse is asking him to agree with numbers, and I
5	just want to make sure that the record is clear. We
6	either need to take a break so he can actually run
7	the math or that we just understand that he's not
8	doing the math. He's just reporting what the
9	document says.
10	MR. NOURSE: And that was actually going
11	to be my next question, your Honor.
12	Q. Would he agree, subject to subject to
13	check, that the math, the arithmetic that we've
14	walked through, produces the numbers in the 2 percent
15	and 6 percent columns.
16	A. It looks accurate. I would, you know,
17	reserve the right to just kind of pull out a
18	calculator or spreadsheet and just run it on through,
19	but they look like they're in the right ballpark.
20	Q. And I believe we covered all of the
21	arithmetic of how we got to these numbers. Do you
22	have any other concerns or questions about how that
23	was done?
24	A. None.
25	Q. Okay. Thank you. Let's move on.

3272 1 On page 11 of your testimony in the 2 question and answer starting on line 9, so this is an 3 example of where you're relying on the, I believe the 4 study -- I'm sorry. I've got to be clear on which study -- yeah, this is the Cleveland State University 5 study that you're referencing in this discussion, 6 7 correct? Correct. I believe it's EWH-2. 8 Α. 9 Okay. So you make the statement about a Ο. 10 1 cent, and I'm on line 10, 1 cent per kilowatt-hour 11 correlated to a decrease in gross product generated 12 of \$2,527 per employee, a total 2.2 percent. Do you 13 see that? 14 Α. Yes. 15 And you go on to say, "In economic terms, Ο. 16 this is a price elasticity of negative 2.2," correct, "2.2%"? 17 18 Α. Correct. 19 Okay. So I want to talk to you about Q. 20 that calculation of negative 2.2 percent in that 21 context. First of all, from an arithmetic standpoint 2.2 do you agree that 1 cent per kWh is equal to \$10 per 23 megawatt-hour? 24 I do. Α. 25 Okay. And that would be about Q.

3273 1 436.5 million per year? 2 I'll have to take your word on that one. Α. 3 Okay. And, I'm sorry, I didn't really Ο. 4 clarify what I meant there. I'm asking about if the 5 rider, if the PPA rider, were to be a charge of 436.5 million for a given year, that would have an 6 7 impact of \$10 per megawatt-hour. Is that consistent 8 with what we just went through? 9 Α. That's consistent with your arithmetic. 10 Okay. And the load that's in Mr. Allen's Ο. 11 testimony is what I based that on; is that correct? 12 Α. That's what you have told me. 13 That's your understanding, okay. Ο. 14 All right. So back to the negative 2.2 15 price elasticity calculation -- first of all, is 16 2.2 percent high elasticity or low? Can you give me a sense of what that means? 17 18 Α. A negative 2.2 percent means for every 19 1 percent increase of the factor price or the cost in 20 question, the value of value added goes down by 21 2.2 percent. Anything that's above 1 percent is considered to be price elastic. 2.2 23 Okay. Something below 1 percent would be Ο. 24 low? 25 Something below 1 percent is considered Α.

3274 1 to be price inelastic. 2 What about something that's .13 percent, Q. 3 would that be really low? 4 Α. It would only be done if you're measuring it in percent change -- in terms of percent change, 5 and it has -- it should be run econometrically 6 7 through a statistical equation. Okay. Now I'd like you to turn to EWH-2, 8 Ο. 9 page 31. 10 Α. Page 31? 11 Ο. Page 31. And in the middle of the 12 page -- let me know when you're there --13 I am here. Α. 14 In the middle of the page it goes into Q. 15 this same example, right? 16 Α. Uh-huh. And there's the 1 percent -- I'm sorry. 17 Ο. The 1 cent per kilowatt-hour? 18 19 Α. You're on page 31. 20 Q. Page 31. 21 Middle of the page starting with these Α. 2.2 statistical results. 23 Yes. It talks about the 1 cent per Ο. 24 kilowatt-hour, and it talks about the 2,527 drop in productivity, and that's the same example you're 25

3275 1 talking about, right? 2 Right. It says -- so we're talking about Α. 3 the second sentence in that paragraph? 4 Ο. The whole paragraph. But you're particularly referring to the 5 Α. second sentence. 6 7 Well, I think the whole paragraph is Ο. talking about this same example --8 9 Α. Oh, correct. 10 -- that you use on page 11 of your Q. 11 testimony; is that correct? 12 Α. Correct. In fact, that's what you cited on your 13 Ο. 14 footnote 17 on page 11. 15 Α. You're correct. 16 And doesn't the study, the actual study, Ο. calculate a productivity drop of 0.13 percent? 17 18 It says the productivity change resulting Α. 19 from industrial electricity price changes has a low 20 elasticity of 0.13. So that is the 2.2 percent 21 divided by 16.3 percent. 2.2 Q. Right. So that's a low --23 That's an inelastic response. Α. 24 Inelastic, okay. Q. 25 And like you talked about before, that's

very low, correct? 1 2 Α. It's low. 3 Anything below 1 percent is low, is what Ο. you said before, correct? 4 But I'd refer you back to the second 5 Α. 6 sentence, which is the important one. It says, "an 7 increase in industrial electricity price of 1 cent 8 per kilowatt-hour (16.3%) increase... is likely in 9 99% of cases to decrease manufacturing average 10 productivity in the five selected states, on average, 11 by \$2,527 of annual GSP per employee." That's 12 "2.2 percent." So what we've got is a 1 percent increase 13 14 in the kilowatt-hour charge resulting in a 15 2.2 percent decrease in GSP per capita. That's the 16 calculation I'm relying on. And just to be clear, I think you said 17 Ο. 18 1 percent increase in kilowatt-hour charge. It's 1 19 cent, correct, 1 cent per kilowatt-hour? 20 Α. Well, I'm looking at the 1 percent in my 21 testimony. Well, not my testimony, in the study. 2.2 Let me get this right. 23 In page 31 of the study in the second Ο. 24 sentence, it's talking about a 1 cent per kilowatt 25 increase, correct, not a 1 percent increase?

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3276

3277 1 Oh, you're right. I misread it. Thank Α. 2 you. 3 Okay. Thank you. Ο. 4 Have you studied the -- in connection with your FirstEnergy testimony in the proceeding 5 down the hall, have you studied the SSO rates of 6 7 FirstEnergy? MS. BOJKO: Objection. 8 9 EXAMINER PARROT: Grounds? 10 MS. BOJKO: Relevancy to this case. 11 MR. NOURSE: I want to ask him about the 12 changes that occur with competitive auctions, 13 comparing to some of the stuff he's saying here. 14 EXAMINER PARROT: Overruled. 15 (By Mr. Nourse) Do you need the question Q. 16 read back, sir? Please. When motions are ruled or 17 Α. overruled, sometimes I don't have a clue as to what 18 19 direction the answer is. 20 MR. NOURSE: I understand. The attorneys 21 start talking. You just tune out for a while. 2.2 (Record read.) 23 Α. No. 24 Okay. Can you turn to page 12. Q. 25 Of what? Α.

3278 1 Of your testimony. Q. 2 Thank you. Α. 3 And you make a statement there in lines 5 Ο. 4 through 7 --Α. 5 Correct. -- that "In the three deregulated states, 6 Ο. 7 the average industrial price of electricity dropped after deregulation and the average total productivity 8 9 per employee increased." Do you see that? 10 Α. I do, yes. 11 Ο. And you're citing -- again, you're citing 12 Exhibit 2 for that proposition? 13 Page 31-32. Α. 14 Okay. First of all, have you studied the Ο. 15 effects on nonindustrial customers of deregulation? 16 Α. The research project I was referring to 17 was just industrial customers. No, don't -- look at 18 the front -- I have to look at the beginning of that 19 piece to make certain I'm accurate. 20 The research was done just with 21 manufacturing industries. 2.2 Ο. And you've not studied the impacts on 23 nonindustrial customers of deregulation; is that 24 correct? 25 That's correct. Α.

3279 Can you turn to page 33 of Exhibit 2. 1 Q. Ι 2 want to ask you about Figure 11. Do you see that, 3 Figure 11? 4 Α. I do. Would you agree -- well, first of all, 5 Q. for purposes of this question and your statements and 6 7 testimony, can we agree that the deregulated states listed on this chart would be Pennsylvania, Michigan, 8 9 and Ohio? 10 Α. That's correct. 11 Ο. And the regulated states on this chart 12 are Indiana and Kentucky, correct? 13 Α. Correct. 14 Would you agree based on Figure 11 that Q. 15 the electricity price for industrial customers is 16 higher pretty much throughout all or most of the period -- the 20-year period in this table for the 17 18 deregulated states? 19 Α. The absolute dollar amounts are higher. 20 The importance of this particular chart is the slope 21 because the discussion is about the change in the 2.2 prices of electricity. 23 So, I understand your opinion. But you Ο. 24 are agreeing, you said the absolute dollar amounts 25 are higher throughout?

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1	A. Correct.
2	Q. Okay. Then back to page 12 of your
3	testimony, slightly different question about that
4	same answer. Starting on line 2, are you suggesting
5	that electric price changes are the only reasons for
6	changes in productivity for manufacturers?
7	A. Not the sole change.
8	Q. So you agree there are many reasons for
9	gross productivity to change and not necessarily
10	related to electric pricing, correct?
11	A. That's correct.
12	Q. For example, less efficient plants could
13	be eliminated and aggregate efficiency would rise,
14	correct?
15	A. Correct.
16	Q. New plants could be added or plants could
17	be refurbished and also increase efficiency overall,
18	correct?
19	A. In all of your examples, those decisions
20	would be partially predicated on the cost of energy.
21	Q. Okay. But do you agree that those
22	factors would change and they could be unrelated to
23	the price of energy?
24	A. I did I would agree that those facts
25	come in, but the decision would be unrelated to the

price of electricity. The electricity price would 1 fit into the decision-making calculus. 2 3 But even if it's -- okay. So if you're a Ο. 2 percent energy-intensive customer, 2 percent of 4 5 every dollar relates to electric pricing, is that customer going to make all these decisions, the ones 6 7 we just discussed, based strictly on electric prices? 8 Α. Not strictly. 9 Okay. And so you agree there could be Ο. 10 other drivers that would cause a manufacturer to make 11 those decisions that are not based on the price of 12 electricity, correct? The critical location factors for a 13 Α. 14 industrial customer vary in different surveys, but 15 consistently -- but electricity is consistently 16 ranked anywhere from 3 to 5 in most of them. So the 17 critical location factors would be location of the 18 customer, location of critical suppliers. For heavy 19 industrial users, energy cost usually shows up in the 20 third position, and transportation cost and workforce or talent would be in the mix. All those are factors 21 2.2 at play. 23 Okay. And your answer you just gave was 0. 24 about location; in other words, where -- a decision 25

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of where to locate a business or manufacturing --

A. That's the decision, to locate a brand-new business. When you're making incremental investments in a plant, it depends sometimes if you have a multi -- a company with multiple plants or if the company has just one plant. The calculus is, you know, a balance sheet, pro-forma decision on the part of the company.

Q. And would you agree, in addition to the relative price of electricity, in making those investment decisions, the uncertainty or stability that's expected for those electric prices is also important?

In all of my experience on this -- I'm 13 Α. 14 going through conversations in my mind -- I've never 15 heard uncertainty mentioned. Relative energy costs 16 I've heard mentioned frequently, and we've seen it in location studies. So if the uncertainty were to 17 18 change the relative cost of power compared to other 19 locations, it would have an impact. If it's -- if 20 the company is looking at the uncertainty as 21 affecting the relative positions across all their locations, it would wash out. 2.2

Q. So you're saying that industrial customers do not factor in rate stability when making investment decisions?

3283 I believe industrial customers would look Α. at the pattern of rates to see whether they can rely on the cost, the relative cost of that location versus other locations. The cost of electricity will also factor in decisions, say, between -- North American decisions, so it's plant specific. So --Q. But I would believe that the rate is more Α. important than the volatility of the rate. So if the manufacturer is trying to Ο. decide whether to locate in Ohio and they were told that the electric prices are really low right now and may be low for the next couple years, but I expect them to increase significantly and/or be volatile, up and down, up and down, over the next ten years, are you saying that that manufacturer would act just based on the current low prices? The manufacturer would look at the Α. No. forecast that you've given him and compare it to the forecast in other competing locations. So if the Ohio location is guaranteed to be low relative to the other locations, then it will wash out. If it turns out that the expected price is going to be high relative to the other locations, then it will have a negative effect.

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3284 So it really is the degree of risk that 1 2 the company is willing to take, also the time frame 3 in which they can essentially write off their 4 investment. 5 Yes. And so if a company were looking at Ο. 6 a -- locating in a regulated jurisdiction, and, let's 7 say, current prices were even a little bit higher in those regulated jurisdictions but very stable, would 8 9 you agree that certain companies would opt for the 10 stability and not the low price, today's low price? 11 That would all -- talking about Α. 12 hypothetical, but it's a legitimate question. The 13 company would have to take into consideration the 14 veracity in which they have -- that they give to that 15 price forecast. 16 Yes. And assuming they believe that to Ο. 17 be credible, would you agree that some companies may 18 opt for stability instead of today's low price? 19 MS. BOJKO: Objection, your Honor. Or 20 request for clarification. Are we talking about 21 energy prices? I'm not sure what the question's 2.2 implying. 23 Electric prices, and I MR. NOURSE: 24 didn't repeat the whole hypothetical, but we're 25 having a dialogue here.

3285 1 EXAMINER PARROT: Overruled. 2 MS. BOJKO: Thank you. 3 THE WITNESS: Can you repeat that one? 4 Q. (By Mr. Nourse) Yeah, okay. So if you didn't follow me, then I will go back. 5 6 No. It's just in the intervening time Α. 7 period I want to make certain I'm answering exactly 8 what you asked. 9 So I was asking you about how Q. 10 manufacturers make decisions. Energy-intensive 11 manufacturers make decisions, based on your 12 experience, and if they were looking at locating a 13 facility in a regulated state that might have current 14 prices that are slightly higher than the competitive 15 market, volatile rates in another location that's a 16 candidate, and I simply asked you whether you'd agree 17 that some companies would prefer the stable rate, 18 even if it's a little bit higher than today's current 19 lower rate in the other jurisdiction, because of the 20 stability. Do you agree that some companies may opt 21 for stability? 2.2 I can't -- I can't give you a "yes" or Α. 23 "no" or that. What I could do is I would tell you 24 what I would do if I was advising the company, and 25 what I would do would be to take -- to work with

their accountant, who has a pro-forma model on the location cost, and I would try to build in a risk or uncertainty band around the cost of energy given the current price and the rate, whatever the rate forecast is.

And then I would work with the accountant 6 7 to look at what the net present value of the differential would be. So if it turns out that the 8 9 price is a bit higher, then it would really come down 10 to what the forecast is to the variability and how 11 sensitive they are to the electric prices versus 12 other issues. So that is purely a pro-forma 13 exercise.

Q. So you believe, under that kind of analysis that you just described, that volatility and the potential for price spikes would be boiled down to a quantitative number and factored into that decision?

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A. It should be.

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Q. Okay. All right.

A. And the other thing that would be also
involved would be their ability to offset through
conservation measures, capital cost of conservation,
but then you look at the other critical location
factors, which is where their customers are and other

3287 1 parts of the location decision. Sure. Okay. Dr. Hill, did you review 2 Q. 3 the Commission's decision in the AEP Ohio ESP III 4 case in preparation of your testimony? Colloquially known as the AEP factors? 5 Α. Q. 6 Yes. 7 Yes, I did. Α. You reviewed that decision, okay. I want 8 Ο. 9 to ask you a couple of questions about that. Do you 10 happen to have it with you? 11 Α. I did. Let me see. 12 MR. NOURSE: Counsel, do you have it or 13 do you need a copy? 14 MS. BOJKO: I do not, thank you. 15 MR. NOURSE: You do have a copy? 16 MS. BOJKO: Yes, I do. I do not need it. 17 Thank you. 18 MR. NOURSE: Thank you. Compound 19 question, sorry. 20 MS. BOJKO: Objection. 21 MR. NOURSE: Your Honors, do you need a 2.2 copy? 23 MS. BOJKO: More importantly, does the 24 witness need a copy? 25 THE WITNESS: I had one this morning.

3288 MR. NOURSE: If you don't have one, I'll 1 2 give you one. I thought you said you had it. I can 3 just give it to you unless you want to keep looking. 4 THE WITNESS: No, I'm just fumbling 5 around. MR. NOURSE: May I approach, your Honor? 6 7 EXAMINER PARROT: You may. 8 Ο. (By Mr. Nourse) Okay. Dr. Hill, does 9 this look familiar? Is this a decision that you 10 reviewed in preparing your testimony? 11 It does. Much smaller type. Α. 12 Q. I apologize for that. Saving paper. 13 Didn't know if you'd need a copy. 14 Okay. 15 MS. BOJKO: May we go off the record? 16 MR. NOURSE: I'm sorry. Do you want to 17 qo off the record? 18 (Discussion off the record.) 19 EXAMINER PARROT: Back on the record. 20 MR. NOURSE: Thank you, your Honor. 21 Dr. Hill, can you turn to -- well, first Ο. of all, let's look in the table of contents, and can 2.2 23 you confirm that the conclusion, the Commission's 24 conclusion section for the PPA rider starts on page 25 19 under section II-B-1(c) of the decision?

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1	A. Nineteen to page 26/27.
2	Q. Okay. Then let's turn to that section
3	and start on page 22. And on page 22 the first full
4	paragraph says, "The Commission finds that" and
5	I'll skip the RC. That's the ESP statute
6	"authorizes electric utilities to include, in an ESP,
7	terms related to 'bypassability' of charges to the
8	extent that such charges have the effect of
9	stabilizing or providing certainty regarding retail
10	electric service." Do you see that?
11	A. I do.
12	Q. And without regard to any legal opinions,
13	I just want to ask you, based on your understanding,
14	whether you agree with that notion that the
15	Commission can include a nonbypassable stability
16	charge in an ESP. Is that your understanding?
17	A. That's a legal conclusion. I'm an
18	economist, so I'm not in a position to make a
19	statement as to whether it can or should be
20	whether it be included or not.
21	Q. Okay. It's really a background question,
22	but that's what the Commission said right there,
23	correct?
24	A. Correct.
25	Q. And then the next sentence, "As discussed

3290 1 above, both shopping and SSO customers may benefit 2 from the PPA rider because it would have a 3 stabilizing effect on the price of retail electric 4 service, irrespective of whether the customer is 5 served by a CRES provider or the SSO." Do you see 6 that? 7 I do see it. Α. 8 Ο. And do you agree with that statement? 9 Do I agree with it? Α. 10 Yeah. Ο. 11 On the whole, I disagree with it. Α. 12 Q. You disagree. 13 I disagree. Α. 14 Okay. That's what I thought. Ο. 15 I'm glad I didn't disappoint you. Α. 16 Well, I didn't take your deposition so I Ο. 17 don't know for sure what you're going to say. 18 Α. Okay. 19 All right. Can you turn to page 25? Ο. 20 Α. Yes. 21 And in the, I believe it's the third Ο. 2.2 sentence --23 "We conclude"? Α. 24 "Nevertheless," so I didn't count Q. 25 correctly.

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1	A. Oh, "Nevertheless." Yes.				
2	Q. "Nevertheless, the Commission does				
3	believe that a PPA rider proposal, if properly				
4	conceived, has the potential to supplement the				
5	benefits derived from the staggering and laddering of				
6	the SSO auctions, and to protect customers from price				
7	volatility in a wholesale market." Do you see that?				
8	A. I do.				
9	Q. And do you disagree with that statement?				
10	A. On the whole, I disagree with that				
11	statement. I would have one small caveat.				
12	Q. Okay. Go ahead and give your caveat.				
13	A. The caveat would be, and it comes from in				
14	my testimony, when we look at what's required to give				
15	time out for a company that's failing, the caveat				
16	would be that the company would have to, in that				
17	shelter time period, substantially restructure its				
18	operations, deal with cost issues, and comes out				
19	essentially as a very different competitive firm.				
20	If the shelter is just to shelter them				
21	from competition, then I disagree with it quite				
22	strongly. In fact, what I've found a bit				
23	discouraging, as I read the materials in both cases,				
24	is this insistence on stable prices, which to me is a				
25	stalking horse for above-market prices, that when the				

1 companies involved are saying that they are 2 supporting and looking for stability of prices means 3 that, to me, that they're trying to earn prices 4 above and shelter themselves from market rates of return from merchant generation. 5 Okay. And would you agree that, in your 6 Ο. 7 terms, the shelter, if the shelter provides other benefits and the Commission determines that other 8 9 benefits would exist, that then would you agree that 10 it's worthwhile? 11 You mean outside of giving the company an Α. 12 opportunity to restructure and lowering its operating 13 costs? 14 Ο. Yes. 15 I can't -- I can't foresee every single Α. 16 circumstance, but my instinctive answer would be no. 17 Ο. Okay. So if -- I'm sorry. 18 I go back to what we learned with Ormet. Α. 19 Ormet was given almost \$300 million worth of subsidy 20 by ratepayers in Central Ohio, and there was no 21 way -- and they couldn't restructure their costs in a 2.2 way to make themselves a competitive firm. They 23 eventually bankrupted. The PUCO gave Ormet the 24 ability to collect, I think it was, \$308 million from 25 ratepayers across the state of Ohio. There were

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3292

1 1,500 jobs at play at the beginning. But an aluminum 2 smelter had no economic reason to be operated in this 3 part of the market, so the end result was bankruptcy, 4 and ratepayers lost 200-some-odd million dollars --5 well, no. I'd have to look up the exact amount, but 6 200-some-odd million.

7 If we look at the steel cases, and the 8 reason why I mentioned the steel mills in Cleveland, 9 they went through multiple bankruptcies, and, in fact 10 the LTV bankruptcy and several workouts, and the end 11 result was a very different company came out. It was 12 built by -- bought by Mittal and became 13 ArcelorMittal. But, more importantly, they had 14 different en work rules. They shed their pension 15 costs, lowered their operating costs, and in that 16 labor environment, the company invested in more 17 equipment making a very different steel mill. So 18 providing them shelter without going through that 19 excruciating pain would have been lemon socialism, a 20 waste of the taxpayers' money.

We learned the exact same thing with the bankruptcy of Chrysler and GM. I think I've gone a little, I may have gone a little bit afield. Q. That's okay. Did you say Lenin

25 socialism?

1 Α. Lemon. 2 Oh, lemon socialism. Q. 3 That's essentially where you take Α. 4 companies that are lemons and socialize them. 5 Ο. Since you mentioned Ormet, I do have a couple more questions, then we're going to get back 6 to what we talked about before. 7 Do you know what role the global aluminum 8 9 price played in Ormet's bankruptcy? 10 It played a substantial role because of Α. 11 the oversupply of aluminum in the global market, but 12 the cost of electricity was one where they, the 13 company, kept on coming back for lower and lower 14 costs. 15 Yeah. But that didn't help overcome the Ο. 16 low -- sustained low aluminum prices on a global 17 scale, correct? 18 That's correct. Α. 19 Q. Okay. 20 Α. That's the reason why the subsidy should 21 never have been given in the first place. 2.2 Q. So are you saying the Commission wastes 23 money when authorizing special arrangement discounts 24 to industrial customers? 25 No, I'm not saying that at all. What I'm Α.

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3294

saying is that the Commission conducted an experiment in the case of Ormet, and that was an unusually large discount.

Q. Do you agree that in some cases the
economic development benefit of a rate discount can
outweigh your concerns and help retain Ohio jobs or
tax revenue and other positive benefits?

A. I believe that there is a rationale for giving industrial customers and large industrial customers rate discounts, but what I didn't put in this testimony, it was in the other case, I outlined the conditions under which I thought it would be tolerable and/or acceptable.

Q. Okay. But, fair to say, that the Commission proceeded in good faith in dealing with the Ormet issues and thought --

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A. Absolutely.

18 Q. -- the discounted electric price was 19 going to help the Ohio economy and AEP customers 20 overall, correct?

A. That is correct.

Q. And with respect to your Cleveland steel mills example, would you agree that labor, the cost of labor, was a major factor in that example? A. It was a combination of cost of labor and

3296 1 work rules, and you could argue the total cost of 2 labor would include pension costs. 3 Okay. Now, let's get back to the ESP III Ο. decision, and then we'll get back to your testimony. 4 5 So we were on page 25. In the next sentence, after 6 what we just read before, it says, "We recognize that 7 there may be value for consumers in a reasonable PPA rider proposal that provides for a significant 8 9 financial hedge that truly stabilizes rates, 10 particularly during periods of extreme weather." Do 11 vou see that? 12 Α. I do. Do you disagree with that? 13 Ο. 14 Α. I do. 15 Okay. One more, if I can find it here. Ο. 16 I can't find it right now but, if the Commission in 17 its decision stated that rate stability is essential 18 in an ESP, would you also disagree with that? 19 Α. As long as it's not associated with some 20 form of fundamental transformation of the company. 21 So here's -- again, it's not in this testimony, it's 2.2 in my testimony in the FirstEnergy case, I do have 23 concern about the disposition of generating capacity 24 that's noneconomic, and I do argue in that proceeding 25 that I do believe that that is an issue of stranded

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1	costs and assets that's triggered because of a change
2	in regulatory environment and a change in the
3	fundamental price of fuels, and that this is a change
4	on a par with what the domestically headquartered
5	automobile industries went through.

Q. Okay.

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A. So a long way of getting there, that if there was a multistate workout of stranded assets and that was a part of the fundamental restructuring of the companies that are doing generating, then some form of safe harbor could be justified, but it's got to be transitional and it has to sunset.

Q. With some assistance, I did find that quote I was looking for, Dr. Hill. It's on page 25 just after the language we were discussing earlier. And do you see where it says, "rate stability is an essential component of the ESP" near the end of that same paragraph we were in?

A. It's the -- the clause that starts at the third-to-last line of that first paragraph?

Q. Uh-huh.

A. Yes.

23 Q. Okay. And you disagree with that, just 24 to be clear, correct?

A. Correct.

3298 Okay. Let's put this aside. Go back to 1 Q. 2 your testimony. I just want to ask you about your 3 testimony on page 13, lines 6 through 9. Near the 4 end of that sentence, you express a concern about the PPA potentially driving lower-cost generation out of 5 the market. Do you see that? 6 7 Α. Correct. And you understand under the PPA proposal 8 Ο. 9 that the actual capacity and energy retail customers 10 would be served by SSO auctions and/or CRES 11 providers, correct? 12 Α. Correct. 13 And that the capacity, energy, and Ο. 14 ancillary services associated with the PPA units 15 would be liquidated into the PJM markets, correct? 16 What do you mean by "liquidated"? Α. 17 Ο. That they would not -- the capacity, 18 energy, and ancillary services would not be used to 19 serve load in Ohio. It would be sold in the PJM 20 markets to yield revenue that would be credited to 21 the PPA rider. Is that your understanding? 2.2 Can I do it in my own words to make Α. 23 certain we're understanding each other? 24 Go ahead. Q. 25 That the generating plants would sell Α.

3299 their electricity to the operating companies. 1 The operating companies then sells it into the PJM 2 3 market. If in a sale in the PJM market there's a 4 loss, that gets distributed across all ratepayers in the territory, and if it's sold at a profit, that 5 gets distributed across all ratepayers throughout the 6 7 territory, whether they're AEP's customers or not. 8 Are we saying the same thing? 9 Ο. Well, you're explaining your concern and 10 I think you -- that's fine. 11 Α. No, I'm trying to -- this is the way I 12 understand it. 13 Okay. I think I get you. Ο. Yeah. 14 I think based on what you already said, 15 I'm going to skip this whole line of questioning. 16 You don't like rate stability, right, so we don't 17 need to talk about it anymore? 18 MS. BOJKO: Objection. 19 Α. I am a huge fan of nonregulated rate 20 stability. 21 Q. Okay. 2.2 My concern -- well, you haven't asked me Α. 23 a question so I don't want to go off, so I apologize. 24 All right. If you could turn to page 15, Q. 25 this section of your testimony that starts on page

3300 14, you're discussing the effects of the proposal, 1 2 PPA proposal, and I want to ask you about the 3 statement you make in lines 1 and 2, that "the 4 proposal ignores a fundamental problem facing Ohio in the coming years: Carbon regulation." Do you see 5 that? 6 7 Α. I wrote that, yes. 8 Ο. Okay. And is it your understanding that 9 the company's financial -- quantitative financial 10 study did include approximately three-quarters of a 11 billion dollars in carbon regulation costs? 12 Α. I saw that in Allen's testimony and, I 13 believe, in the CEO's summary. 14 Okay. And do you know, if you know, the Ο. 15 EPA's expected reduction of coal as a percentage of 16 fuel supply that relates to implementation of the 17 Clean Power Plan? 18 Α. Simple short answer is no. I looked at 19 the .70 parts per million regulation, I looked at the 20 .60 parts per million regulation, and rapidly reached 21 the conclusion that to understand its impact on the 2.2 operating costs of the plant, I needed someone who 23 really understood the engineering. 24 Okay. But I'm --Q. 25 Α. That's the longest "I don't know" I think

1 I've ever given. 2 Okay. Well, I'm just asking you if you Ο. 3 know whether the EPA, the USEPA who's, you know, the author, I guess, and proponent of the Clean Power 4 5 Plan, whether it's their expectation to reduce coal as a percentage of generation supply by less than 6 7 10 percent or more than 10 percent, if you know? I do not know that. 8 Α. 9 MR. NOURSE: Okay. 10 MS. BOJKO: Your Honor, is this an 11 appropriate time to take a personal health break? 12 EXAMINER PARROT: Let's go off the 13 record. 14 (Discussion off the record.) 15 EXAMINER PARROT: Let's go back on the 16 record. Let's take a ten-minute break. 17 (Recess taken.) 18 EXAMINER PARROT: Let's go back on the 19 record. 20 Mr. Nourse. 21 Thank you, your Honor. MR. NOURSE: 2.2 Ο. (By Mr. Nourse) So, Dr. Hill, we were 23 talking about -- well, let's do it this way. Would 24 you turn to -- I was going to say we were talking 25 about lemon socialism, which I guess you mention on

3302 page 18 of your testimony. I found that. 1 2 Further down page 18 you make reference 3 in lines 18 and 19 to, I guess, the regulated 4 business model, and you're saying it previously failed. Do you see that? 5 6 Α. Yes. 7 And can you tell me how you believe the Ο. regulated industrial model failed? 8 9 Α. Well, the regulated business --10 regulated -- let's take a step back. 11 There are actually three components to 12 this particular industry. There's merchant 13 generation, there's transmission, and distribution. 14 One of the tenets of good industrial regulation is to 15 relieve the negative effects of market power, and if 16 you can have a competitive market, we tend to be 17 better off. And you noted, when we were going through 18 19 the graph of power prices across different states, 20 that Ohio, as well as Michigan, had rates that were 21 above its southern competitors. And I believe that 2.2 higher entry point, the intercept of that graph, is 23 because the graph goes back to the days of regulated 24 power and since then our rate of increase has 25 declined substantially. So I believe that, or it's

1 my observation, that moving from a regulated 2 generation market to a deregulated market has 3 provided price benefits to electric users in the 4 state.

5 I also find that in this particular case 6 there are three aspects that are trying to impose a 7 form of regulation that is disconcerting. The first aspect is I can't find an end point for the PPA. 8 9 Your data analysis stops in 2024, but in the 10 application I couldn't say, "When does this get 11 revisited?" In fact, in the application it says --12 it seems to say, I'm not a lawyer so I might be 13 misinterpreting the language, that once it's passed, 14 it doesn't get revisited. That's a little 15 disconcerting.

16 The second part that's disconcerting 17 about this request for this peculiar form of 18 reregulation is that the definition of "stability" is 19 also subtle. I mentioned that stability seemed to 20 be -- to embrace higher-than-market prices, but when 21 I'm thinking about how stability's defined in the 2.2 application, I still see volatility, just at a higher 23 rate, because it seems that the power consultant in 24 the market, and there's a rate of return, and the way 25 it gets sold into the market, but it's going to

continue to be volatile, just a higher intercept. So if you have stability with eventually higher prices, that's not a good sign.

4 And my largest concern in my testimony, throughout the entire testimony, is the incentive to 5 6 bring new generating capacity into the marketplace, 7 because the way this is structured is that you could 8 never put an existing power plant out of business 9 because it takes the loss of the plant, puts that 10 into the marketplace and whatever the loss is the 11 ratepayers pick up.

12 So where's the decision to shut down a 13 plant? And how do we move to a more efficient, 14 economically efficient form of generation?

So as I looked at this particular PPA, the definition of rate stability seems to be odd, the lack of an end date seems to be bad regulatory policy and, third, there's no economic incentive to run a plant efficiently because you have a guaranteed rate of return.

The bad old days of regulation is one law where it was really up to the administrators in the PUCO to know the operations of the plant so well to understand whether the costs were right or not.

25

Q. Okay. So I think the very first part of

3305 1 your answer may have answered my question about 2 regulatory failings. So you're saying that 3 regulators allowed the price to go too high and then 4 moving to deregulation provided price benefits, correct? 5 6 MS. BOJKO: Objection. Mischaracterizes 7 his testimony. EXAMINER PARROT: Overruled. 8 9 THE WITNESS: Am I supposed to respond or 10 not at this point? 11 EXAMINER PARROT: You are, and if you 12 need to correct something about his characterization 13 of your testimony, please do that. 14 THE WITNESS: Exactly. 15 EXAMINER PARROT: But I'll allow the 16 question. 17 THE WITNESS: Thank you. 18 Α. I'm not impugning in any way, shape, or 19 form the staff of the PUCO, and I'm not impugning at 20 all the attempts in the past to inspect costs and 21 operating efficiency. What I am saying is that 2.2 markets are a lot smarter than any one person can 23 figure out what the true efficient price of a product 24 is, and I believe, going forward, there are a couple 25 of things about what has already transpired in this

3306 1 marketplace that are important to recognize. The 2 first is that the reliability of the system no longer 3 rests on the state of Ohio, it rests across the 4 entire PJM footprint. That has to be recognized. 5 The second issue that needs to be 6 recognized is that the price of fuels have changed 7 dramatically, and if you have a regulatory regime 8 that says that if a new lower-cost entrant generator 9 enters this marketplace that causes current operating 10 plants to lose money, those current operating plants 11 will never sunset. That's just bad economics. 12 Ο. Okay. Dr. Hill, let me try to focus -narrow this down a little bit. 13 14 Α. Okay. 15 Ο. Your answer two answers ago, in part of 16 your answer I believe said that moving to 17 deregulation provided price benefits, correct? 18 Α. Correct. 19 And let's talk about Ohio specifically, Q. 20 and let's talk about your understanding with AEP Ohio 21 retail customers, okay? Okay, are you with me? 2.2 Α. I'm with you. 23 And so after the transition, the market Ο. development period associated with Senate Bill 3 24 25 occurred, and we're into 2006 and beyond, that would

3307 1 be the deregulation period where price benefits have occurred; is that what we're talking about? 2 3 Α. Correct. Okay. And do you know, under what was 4 Q. called the rate stabilization plan and subsequently 5 6 under Senate Bill 222 the electric security plans, do 7 you know if the Commission found that there were billions of dollars of benefits to retail customers 8 9 in getting regulated rates over market rates during 10 that period? 11 Α. I'm not aware of that statement. 12 Ο. Let's move to page 19 of your testimony, 13 and in this section I believe you're talking about 14 distributed generation and the potential benefits --15 Α. Page 19 now? 16 Page 19. You're talking about Ο. 17 distributed generation and the potential benefits 18 associated with DG, correct? 19 Α. Uh-huh. I'm sorry. I should say "yes." 20 Ο. All right. So do you believe -- well, 21 first of all, do you believe distributed generation customers should receive subsidies from other -- the 2.2 23 other customers? 24 What I believe is that we need room in Α. 25 the state of Ohio and across the PJM footprint to

engage in industrial-scale experiments around power generation and transmission, that if we close the door of being a place where these technologies are implemented and deployed, we will not be -- we will always be trailing in the technology that's available to power generation.

7 So my statements here around distributed 8 generation could also go to cogeneration or energy 9 efficiency and other new technologies. We need to 10 find a regulatory space to make certain that those 11 technologies are experimented with, but they should 12 be treated as an industrial-scale experiment complete 13 with sunset provisions and evaluations at the end of 14 that time period.

Q. Okay. So with respect to things like distributed generation, cogeneration, renewable energy, energy efficiency, you're saying all those things, in all those areas subsidies can be appropriate and useful for certain energy policy goals?

A. Yes. As long as they are put in a
framework so it looks and acts like an experiment
could be evaluated and can sunset.

24 Q. Okay. And let's talk about the potential 25 new gas generation facilities that may be developing

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1 or may occur in the future. Now, do you believe it's
2 appropriate to give those facilities subsidies?
3 A. I just have to ask you to be specific
4 about what you mean by "subsidies" in this case.

Q. Okay. But I'm asking you categorically,
do you think it's okay or not okay for those
facilities to receive some form of assistance through
the government or through regulation?

A. There's some forms of assistance I
believe are appropriate. There's assistance around
site assembly, connecting the site to the grid,
infrastructure going into the site, and those are
appropriate. The tax treatment of the plant should
be treated -- I believe the plant should be treated
in tax terms on par with other generating plants.

16 Q. So tax abatements are inappropriate for 17 those kinds of facilities?

A. There are certain types of -- tax abatements for -- there is a statewide forgiveness of tax on capital goods and equipment. There are issues around the CAT tax that I'm not totally familiar with around the treatment of these, but as a rule, I would rather see the plant pay its full costs.

24Q.Okay. And how about loan guarantees?25A.I would rather not see them.

How about discounted electric -- I'm 1 Ο. 2 sorry. Withdraw that question. 3 And going back to the discussion we had 4 about distributed generation and cogeneration, 5 renewable energy, energy efficiency, I just want to be clear, so are you suggesting that OMA members, 6 7 manufacturers in Ohio, are willing to pay an above-market electric price to support the 8 9 advancement of those areas? 10 Α. I'm not in a position to speak for them. 11 My relationship with OMA and OMA Energy Group in this 12 issue is a bit different because when I saw the PPA 13 proposals, I thought that the impact that they would 14 have on the structure of the market and the 15 ability -- the way in which they would discourage new 16 generation of electricity and the economic 17 development impacts would be so bad that I called the 18 president of OMA and asked to testify, and I'm a 19 volunteer, and that is -- so I can't speak in terms 20 for the membership of OMA, their energy users group, 21 but -- I'll leave it at that. 2.2 Ο. Okay. Thank you. 23 In your analysis involving the PPA 24 proposal, did you quantitatively incorporate or study 25 the costs for any reliability investment that may be

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1 required if the PPA units are closed? 2 I relied on PJM's testimony and PJM's Α. 3 response, and the fact that not all of current 4 generating capacity cleared auction was a sign to me that there was sufficient reliability -- there was 5 6 sufficient capacity in the market and, unfortunately, 7 the Ott's testimony about reserve capacity was stricken so I can't rely on that. 8 9 But you didn't do any independent Q. 10 analysis or quantification of the cost, the 11 transmission improvements that may be needed if the 12 PPA units are closed, did you? 13 I actually relied on AEP's Α. No. 14 submissions. In fact, they were kind of interesting 15 because the net present value difference between 16 building transmission lines versus the perpetual -the net present value of the perpetual subsidy of the 17 18 operating plants was never really compared. 19 So you had the, I think, the 3 billion-dollar number out there for new 20 21 transmission facilities without the net present value 2.2 result of the perpetual subsidy for the operating 23 plants, so it was really impossible to compare the 24 economic efficiency of building transmission, 25 improving the transmission grid versus keeping plants

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that didn't clear capacity auctions up and going. 1 2 Okay. Well, since you already agreed, I Ο. 3 believe, that you did not do any quantitative 4 analysis of your own about the potential impacts of the PPA rider on retail customers, exactly whose 5 6 analysis are you relying on when you talk about a 7 perpetual study -- or, I'm sorry, a perpetual subsidy? 8 9 Α. Your own testimony, I mean, own submissions for three years show that the plants were 10 11 going to lose money, and in the out years out to 2024 12 that's where your estimates show there would be a return to customers. Is that -- I'm not in a 13 14 position to judge the credibility of those estimates 15 in a very uncertain fuel environment, but I look at 16 the incentives that are provided through the PPA to 17 the generator to have a guaranteed rate of return and

18 the logical impossibility of closing the plant that 19 are in your proposal to form that statement.

Q. So your statement of a perpetual subsidyis based on company testimony?

A. It's starting with the company testimony, starting with the fact that you're requesting the PPA, which means that through the request of the PPA you aren't trusting the ability to make money in the

1 Those to me are the most important pieces markets. 2 of evidence. 3 Okay. And did you, likewise, consider Ο. 4 the cost of new generation in Ohio as part of your analysis of the PPA? 5 I'm -- the cost of new generation. 6 Α. Ι 7 don't understand that. Well, under your scenario if PPA units 8 Ο. 9 are pushed out of the market and new units are built, 10 did you consider or quantify specifically the costs, 11 the long-term costs on market prices of these new 12 generation units? Well, I don't have to. I mean, right now 13 Α. 14 we've got five new plants either under construction 15 or permitted, and my concern much more is about the 16 market signals that are set off, if it's impossible 17 to compete with existing power plants, meaning it's 18 impossible to take their baseload out of the 19 marketplace, which is what the PPA is designed to do. 20 Ο. Yeah, okay. Well, I wasn't asking you 21 whether you had to include that analysis or do it. Ι 2.2 was asking you whether you did the analysis. The answer is no. 23 Α. 24 Okay. And would it be your expectation Q. 25 that a new entrant would expect a greater ROE, return

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3314 on equity, or risk premium as compared to a regulated 1 level of ROE? 2 3 Α. The ROE is irrelevant. It's the price of 4 the power that's relevant. That's where you get the ROE over the 5 Ο. life of your asset, right? 6 7 Α. Yes. 8 Ο. Revenue. 9 Α. But also the efficiency of operating the 10 plant, the efficiency of the fuel source and the cost 11 of adding pollution controls. 12 Ο. Correct. So would you expect the risk 13 premium for a new generation investor to be greater 14 or less than a regulated ROE level? 15 I have no opinion on that. Α. 16 Ο. Okay. Can you turn to page 26, and in 17 the bottom half of the page there, which is an answer 18 that carried over from page 25, I guess you're 19 talking about competitive concerns, and in line 12 20 you say there would be a "differential between 21 AEP Ohio's affiliate price and that of its 2.2 competitors." Do you see that? I have to -- that's the tail end of a 23 Α. 24 very long sentence. 25 Go ahead and review it. Ο.

3315 1 Okay. I'm done. Α. 2 And then you talk about two negative Q. 3 outcomes from that following that sentence, correct? 4 Α. Correct. And the first one talks about narrowing 5 Ο. 6 costs -- their cost advantage meaning new entrants 7 would otherwise have a cost advantage. Is that your implication? 8 9 Α. Correct. 10 And is it your understanding that under Ο. 11 the PPA that CRES providers and SSO auction suppliers 12 would be competing against the PPA on a price basis? 13 Α. Can you repeat that, please. 14 MR. NOURSE: Can you read it back, 15 please. 16 (Record read.) 17 Α. That's a very, very subtle question. So 18 it's my understanding that AEP's distribution 19 companies, companies that deal with the consumer, 20 will purchase the power from the merchant generating 21 plants, they'll sell the power into the PJM auction, 2.2 and whatever -- if there's a loss in the auction, 23 that gets distributed over all consumers within the 24 footprint, and if there is a profit, it gets 25 distributed across all consumers in the footprint.

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1	And it makes no difference whether you're
2	SSO or whether you're a CRES provider that's AEP or
3	non-AEP, you pay or you get a credit.
4	Q. Okay. And I'm not accused of being
5	subtle very often, so I want to be clear
6	A. I haven't been accused of being quiet
7	before too, so
8	Q. I want to be clear, the fact is that the
9	PPA rider as proposed would be nonbypassable,
10	correct?
11	A. Correct.
12	Q. So that CRES providers would compete
13	amongst themselves based on the same, you know, cost
14	advantage if they have one or cost disadvantage if
15	they have one, and the same applies to SSO suppliers,
16	correct?
17	A. Not quite. So legally what you are
18	saying, or I believe is correct, but the real
19	differential is it removes the ability of CRES
20	providers and aggregators to purchase power directly
21	from a new plant or new entrant to the marketplace
22	by the real problem to this PPA is that it
23	discourages new merchant generating capacity from
24	entering the marketplace, so that is where the
25	distortion takes place.

3317 1 So, yes, if everyone is paying the exact 2 same tax, it could be determined to be a level 3 playing field. But the decision whether you're 4 operating in Ohio or not really is a decision around 5 that tax and the access to more competitive power. So by denying the ability or making -- not denying, 6 7 strike that, increasing the hurdle to enter this marketplace for a merchant generator, that is having 8 9 distorting effects. 10 MR. NOURSE: Okay. I think I understand. 11 That's all I have. Thank you, Dr. Hill. 12 THE WITNESS: You're welcome. 13 EXAMINER PARROT: Mr. Beeler? 14 MR. BEELER: No questions, thank you. 15 EXAMINER PARROT: Any redirect? Do you 16 want a minute? 17 MS. BOJKO: We literally just need two 18 minutes, please. 19 EXAMINER PARROT: Okay. Let's go off the 20 record. 21 (Recess taken.) 2.2 EXAMINER PARROT: Let's go back on the 23 record. Any redirect? 24 MS. BOJKO: Yes, your Honor, thank you. 25

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1	REDIRECT EXAMINATION
2	By Ms. Bojko
3	Q. Dr. Hill, in some of your responses you
4	used the term "operating companies," and I know you
5	just came from a different hearing last week. Did
6	you mean AEP Ohio when you said "operating
7	companies"?
8	A. Yes.
9	Q. Were your responses the same when you
10	said "operating," you meant the AEP Ohio's operating
11	companies?
12	A. That is correct.
13	Q. Okay. And you had some questions
14	regarding stability of electric prices and regulated
15	versus unregulated rates. Is Ohio a regulated state?
16	A. It's a partially regulated state; so
17	merchant generation is deregulated, the other
18	components are regulated.
19	Q. So who owns the generation that's subject
20	to the purchased power arrangement?
21	A. In this case it is the unregulated
22	component of AEP yes, the currently unregulated
23	component of AEP.
24	Q. And in the context of the stability of
25	electric prices that you were questioned about, is

1 the PPA a charge for energy costs? 2 Is the PPA a charge for energy costs? Α. 3 The way I think about it, the answer would be no, the 4 PPA is a markup on top of energy costs, so the energy 5 costs themselves would be whatever the power provider 6 purchases. I mean, there are PPAs all over this 7 marketplace, so CRES providers and aggregators enter into long multiyear, multimonth, and multiyear 8 9 contracts for electricity, and this wouldn't affect 10 any of those. 11 What it would do would be a way of taking 12 the presumed losses from AEP's generating plants and spreading them out over all users so all that it 13 14 really is is a markup or a tax. 15 Do you think the proposed PPA in this Ο. 16 proceeding provides the stable or certain rates that 17 you discussed with Mr. Nourse with regard to the 18 AEP Ohio proceeding -- the order? Excuse me. 19 Α. Well, what it provides is a stable rate 20 of return to the generator. I don't see anything in 21 the proposal that will change the market rate of 2.2 electricity. So it's as if you have a graph of 23 electricity prices out there and you had the graph 24 without the PPA, and it would hit the Y axis at a 25 certain point, the intercept, and then the trend will

3320 1 be whatever the percent change in the market rate of 2 electricity would be. 3 With the PPA you just take that exact 4 same line and just jack it up the Y axis a little It changes the intercept, but the slope of the 5 bit. 6 curve won't change at all. 7 But is the PPA a fixed price under that Q. scenario? 8 9 Α. No. What the PPA is, it's a fixed 10 markup. So it takes whatever the loss is with the 11 guaranteed rate of return to the generator and 12 spreads that loss over the rate base, in addition to 13 whatever electricity costs that they are paying, 14 market price. 15 MS. BOJKO: Thank you. I have no further 16 questions. 17 EXAMINER PARROT: Mr. Mendoza? 18 MR. MENDOZA: No questions, your Honor. 19 EXAMINER PARROT: Ms. Fleisher? 20 MS. FLEISHER: No questions, your Honor. 21 Ms. Mooney? EXAMINER PARROT: 2.2 MS. MOONEY: No questions, your Honor. 23 EXAMINER PARROT: Ms. Bair? 24 MS. BAIR: No questions. 25 EXAMINER PARROT: Mr. Darr?

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1	MR. DARR: No thank you.
2	EXAMINER PARROT: Mr. Kurtz?
3	MR. KURTZ: No, thank you.
4	EXAMINER PARROT: Mr. Nourse?
5	MR. NOURSE: Just a couple your Honor.
6	RECROSS-EXAMINATION
7	By Mr. Nourse:
8	Q. Dr. Hill, when you just now referred to
9	the PPA pricing as a fixed markup, you drew the chart
10	with your fingers there. Is it your understanding
11	that the cost-based rates under the PPA would always
12	be above-market rates?
13	A. Well, I would have to go back and look at
14	the cost projections that AEP had in their
15	submissions as to when it turned when your models
16	show it turning cash positive. And so I don't know
17	if that was 2024 or whether it's 2020. It is
18	conceivable that it could be a credit to the
19	customer, but I just don't see the market dynamics
20	that would get there because the plants that they are
21	sheltering right now are having difficulty clearing
22	auction, and the fuel that they use is going to be
23	increasingly expensive to use, not purchased price,
24	but naturally the ability to burn it compared to
25	other sources of fuel.

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1	Q. Okay.
2	A. So the answer is in theory, correct, it
3	could end up as a credit. In actuality, I would be
4	surprised if it ever does.
5	Q. Okay. But your observations about the
6	markup are based on, even though you don't remember
7	the details right now, are based on the company's
8	quantitative analysis, that is correct?
9	A. Well, it's based largely on the company's
10	application.
11	Q. Okay. Thank you.
12	MR. NOURSE: That's all I have, your
13	Honor.
14	EXAMINER PARROT: Mr. Beeler?
15	MR. BEELER: Nothing. Thank you.
16	EXAMINER PARROT: Ms. Bojko, I believe
17	you already moved, I believe
18	MS. BOJKO: I did.
19	EXAMINER PARROT: for the admission.
20	MS. BOJKO: I'd like to renew, thank you.
21	EXAMINER PARROT: Okay. OMA Exhibits 19
22	and 20, any objection?
23	MR. NOURSE: Your Honor, I will note my
24	objection to Attachments 1, 3, and 4, again, for the
25	record, and move for a ruling that strikes those

3323 1 exhibits. 2 EXAMINER PARROT: Do you mean 1, 2, and 3 3, Mr. Nourse? 4 MR. NOURSE: 1, 3, and 4. I believe 2 5 was his CSU study that he took ownership of. 6 EXAMINER PARROT: I already struck 4. 7 MR. NOURSE: I'm sorry, so 1 and 3. EXAMINER PARROT: 1 and 3. 8 9 MR. NOURSE: Yes. 10 EXAMINER PARROT: Thank you for that 11 clarification. Based on my earlier ruling, I'm going 12 to deny the motion to strike the Attachments 1 and 2. 13 MS. BOJKO: Thank you, your Honor. 14 EXAMINER PARROT: Any other objection? 15 MR. NOURSE: No. 16 EXAMINER PARROT: All right. With that, OMA Exhibits 19 and 20 are admitted into the record. 17 18 (EXHIBITS ADMITTED INTO EVIDENCE.) 19 EXAMINER PARROT: Thank you, Dr. Hill. 20 THE WITNESS: Thank you. 21 MR. NOURSE: Your Honor, I'd move for the 2.2 admission of AEP Exhibit 37. 23 EXAMINER PARROT: Any objection? 24 MS. BOJKO: Yes, your Honor, I object to 25 the admission of AEP Exhibit 37. While the tariff

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1 may be something that could be taken administrative 2 notice of, he did not have specific knowledge to the 3 tariff.

4 But particularly problematic is the last 5 sheet which is a sheet created by, I don't know who. 6 We don't know who created it, whether it was 7 Mr. Nourse, Mr. Allen. It was a document that has 8 calculations that the witness did not actually 9 physically verify and check. There was no 10 foundation. He actually had some concerns with the 11 titles of this document. Mr. Nourse just read it 12 into the record, and it's extremely misleading and 13 prejudicial, and it's not an exhibit that was 14 provided through discovery that parties could verify 15 and check the accuracy of.

16 MR. NOURSE: Your Honor, it is a 17 cross-examination exhibit, so there's no need to 18 distribute it or give parties advanced warning of 19 this. I think the witness verified all the arithmetic associated with all the calculations here 20 21 and, you know, the driving force of all the calculations, aside from the rates that are in the 2.2 23 Commission's approved tariff, was simply the load 24 that's listed in Mr. Allen's testimony. And the 25 witness, by suggesting that we clarify the 2 percent

3325 and 6 percent columns to be increase in total cost to 1 2 production, I think, agreed with the nature of the 3 illustration here and clarified he understands it and 4 with that change accepted it, subject to the math 5 being confirmed, which anyone can do at any point. So I think it was illustrative of the 6 7 impact of his testimony related to statements he made in his testimony about energy-intensive customers. 8 9 EXAMINER PARROT: Mr. Nourse, I'm going 10 to admit Company Exhibit 37. I also want to clarify 11 earlier I misspoke and, I think I referenced 12 Attachments EWH-1 and 2, I meant 1 and 3. I was 13 denying your motion to strike those Exhibits 1 and 3, 14 Mr. Nourse. 15 MR. NOURSE: I gathered that, your Honor. 16 EXAMINER PARROT: I just wanted to state that for clarification. 17 18 (EXHIBIT ADMITTED INTO EVIDENCE.) 19 EXAMINER PARROT: All right. At this 20 point let's take a break for lunch. We will 21 reconvene at 1:45. 2.2 MR. KURTZ: Your Honor, will Mr. Taylor 23 go on at that point? 24 EXAMINER PARROT: Yes. 25 MR. KURTZ: Okay.

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3327 1 Monday Afternoon Session, October 19, 2015. 2 3 4 EXAMINER SEE: Let's go back on the record. 5 Mr. Kurtz, would you like to call your 6 7 next witness? MR. KURTZ: Thank you, your Honor. We 8 9 call Alan Taylor. 10 EXAMINER SEE: Mr. Taylor, if you'd raise 11 your right hand. 12 (Witness sworn.) 13 EXAMINER SEE: Thank you. Have a seat. 14 15 ALAN S. TAYLOR 16 being first duly sworn, as prescribed by law, was examined and testified as follows: 17 18 DIRECT EXAMINATION 19 By Mr. Kurtz: 20 Ο. Will you identify yourself for the 21 record, please. 2.2 My name is Alan Taylor. I'm the Α. 23 president of Sedway Consulting. 24 Do you have in front of you a document Q. 25 marked Direct Testimony of Alan S. Taylor?

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1	A. Yes, I do.
2	Q. Was this prepared by you or under your
3	direct supervision?
4	A. Yes, it was.
5	Q. If I were to ask you the same questions
6	as those contained therein, would your answers be the
7	same?
8	A. Yes, except for one minor correction. On
9	page 11, line 1, there's a numerical correction.
10	There's a reference to the number \$12.3 million.
11	That should be, consistent with the rest of my
12	testimony, \$12.2 million, and it's simply
13	representing the savings associated with a 1 percent
14	reduction in return on equity.
15	Q. Are those all of your corrections?
16	A. Yes, they are.
17	MR. KURTZ: Your Honor, I ask that this
18	be marked as OEG Exhibit 2, and that the witness be
19	tendered for cross.
20	EXAMINER SEE: The exhibit is so marked.
21	(EXHIBIT MARKED FOR IDENTIFICATION.)
22	EXAMINER SEE: And any cross-examination
23	for this witness, Mr. Mendoza?
24	MR. MENDOZA: Yes, your Honor.
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1	CROSS-EXAMINATION
2	By Mr. Mendoza:
3	Q. Good afternoon, Mr. Taylor.
4	A. Good afternoon.
5	Q. I'm Tony Mendoza. I represent Sierra
6	Club in this proceeding.
7	You used the phrase "skin in the game" in
8	your testimony, right?
9	A. Correct.
10	Q. Could you define for us what you mean by
11	"skin in the game"?
12	A. It's basically an incentive cost and
13	benefits sharing mechanism that would ensure that
14	AEP Ohio and AEPGR were acting in the best interests
15	of all parties in the sense that if they have skin in
16	the game or if they have a stake in bearing the cost
17	or reaping the benefits of the PPA rider, that they
18	would actually maximize revenues and do their best to
19	minimize costs.
20	Q. Okay. Thank you.
21	And, I think, correct me if I'm wrong,
22	but your proposal is that 80 percent of the costs and
23	benefits would be, just generally speaking,
24	80 percent would be allocated to customers and
25	20 percent would be retained by AEP; is that right?

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1	A. Generally speaking, yes.
2	Q. Okay. And so absent your proposed
3	modification, AEP's proposal AEP has no skin in
4	the game, correct?
5	A. Correct.
6	MR. MENDOZA: Your Honor, I have no
7	further questions.
8	EXAMINER SEE: Ms. Bojko?
9	MS. BOJKO: Just a couple, your Honor.
10	Thank you.
11	
12	CROSS-EXAMINATION
13	By Ms. Bojko:
14	Q. Good afternoon, Mr. Taylor.
15	A. Good afternoon.
16	Q. Kim Bojko with the Ohio Manufacturers'
17	Association Energy Group.
18	As I understand your testimony, you're
19	not supporting the AEP PPA as proposed; is that
20	correct?
21	A. That is correct.
22	Q. So you haven't done an analysis regarding
23	AEP's projections for their operating costs of the
24	plants; is that right?
25	A. That is correct, I have not.

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3331 Nor have you done any kind of analysis 1 Ο. 2 regarding the forecasted energy and capacity 3 revenues; is that correct? 4 That is correct. Α. 5 So your testimony is to offer some Ο. 6 modifications to the PPA; is that right? 7 Yes. Α. 8 MS. BOJKO: Thanks. I have nothing 9 further. Thank you, sir. 10 EXAMINER SEE: Ms. Bair? 11 MS. BAIR: Thank you. 12 13 CROSS-EXAMINATION 14 By Ms. Bair: 15 My name is Jodi Bair. I represent the Ο. 16 residential ratepayers in AEP's territory. 17 You were talking about the 20/80 split 18 that you propose. Did you come up with that 20/80? 19 Α. It seemed like a reasonable, 20 middle-of-the-road kind of 80/20 concept that I've 21 seen in other incentive ratemaking mechanisms. I think it's a good starting point. Obviously, the 2.2 23 Commission could decide on whatever percentages, if 24 at all, would be appropriate, but I think to go too 25 lean on the utility side, to pare that down to, say,

3332 1 5 percent isn't enough skin in the game, to use the 2 colloquial reference here, and I think that a 3 20 percent number is in the right ballpark. 4 MS. BAIR: Thank you. That's all I have. 5 EXAMINER SEE: Mr. Darr? 6 7 Thank you, ma'am. MR. DARR: 8 9 CROSS-EXAMINATION 10 By Mr. Darr: 11 Besides the 80/20 proposal and the Ο. 12 proposal to flex the return on equity, you also have a recommendation that a plant be removed if it's 13 14 projected to have three bad years and has had three 15 bad years. And by "bad," I mean its costs exceed the 16 revenues that it's produced; is that correct? 17 Α. That's correct. And by "costs" what we're talking about 18 Ο. 19 are the costs that are generated by the PPA proposed 20 by AEP Ohio, correct? 21 Α. Correct. 2.2 Q. Now, if AEP were successful in 23 demonstrating that a plant which had three uneconomic 24 years would have one positive year in the succeeding 25 three years, that plant would stay in the PPA

1 agreement; is that right?

A. Yes. In a broad-brush sense, I mapped out in very general terms what this could look like. I think that a three-year period, three consecutive calendar years where a plant had failed to have any positive net benefit would trigger a Commission proceeding.

8 The Commission would then open a docket. 9 There would be an opportunity for intervenors to 10 review AEP's forecast, generate their own forecast, 11 if need be, and the Commission then would have a 12 decision in front of it as far as whether it believed 13 the company's forecast or other forecasts, so there 14 would be a decision-making process in looking at this 15 prospective three-year period.

And whether the Commission decided to go with a rule of just one of those three years needs to be positive or whether they needed to see a positive cumulative number over the three years, I would leave to the Commission, but the idea is to, yes, to make sure that this plant that's had three bad consecutive years is turning the corner.

Q. In terms of deciding whether or not a particular unit is showing an uneconomic -- is uneconomic -- let me start again.

3334 1 In terms of deciding whether or not a 2 particular plant is uneconomic, you're proposing that 3 this be done on a unit-by-unit basis. And by that do you mean generator by generator? 4 Yes, generating unit by generating unit, 5 Α. so there would basically be 12 different entities --6 7 I'm sorry, 10 different entities that are tracked here, the 9 individual power plants, and then the 8 9 OVEC entitlement is a separate piece. 10 And each one would be identified Ο. 11 separately for this particular calculation; is that 12 correct? 13 That is correct. Α. 14 Now, several of the plants are co-owned. Ο. You're aware of that, correct? 15 16 Α. Yes, I am. 17 Ο. And with the exception of Zimmer, these 18 are all part of multiunit facilities also, correct? 19 Α. That is my understanding, yes. 20 Ο. Have you done anything with regard to 21 determining whether or not these plants share 2.2 operation and maintenance costs? 23 I have not. I imagine that they probably Α. 24 do, so it does get complicated as far as tracking 25 things on an individual basis.

3335 Would that also be true with regard to 1 Q. 2 general and administrative costs? 3 Perhaps. Although I would hasten to add Α. 4 that in reviewing at least Dr. Kelly Pearce's -- AEP 5 Witness Kelly Pearce's workpapers, he had mapped out 6 exactly what the costs would be by plant, so I 7 presume that AEP has policies in place for taking 8 joint facility costs and allocating them to 9 appropriate facilities so that they are tracked on a 10 unit-by-unit basis. 11 Is there anything in the PPA agreement Ο. 12 that indicates there are fixed formulas with regard 13 to either operation and maintenance costs or general 14 and administrative costs that you're aware of? 15 Α. I don't believe so. And I think that is 16 part of Mr. Lane Kollen's testimony, is to get much 17 more specific if a PPA were to be -- if a PPA rider 18 were to be approved. 19 With regard to allocation of costs, would Q. 20 you agree that retirement costs may include some 21 common costs across multiple units, for example, 2.2 retirement of a slurry pond or things like that? 23 I presume so. I don't know for sure. Α. 24 And you're not making any recommendations Q. 25 on the allocation of operation and maintenance

3336 1 expenses; is that correct? 2 Α. That is correct. 3 Ο. And you're not making any recommendation 4 with regard to GNA charges, correct? 5 Α. That is correct. And you haven't made any recommendations 6 Ο. 7 with regard to retirement costs, is that also correct? 8 9 Α. That is also correct. 10 Q. Now, if I understand it correctly, if the 11 company were successful in demonstrating that a 12 plant -- or, excuse me, a unit would have a positive 13 return in one or more years, that unit would stay 14 within the calculation; is that correct? 15 Α. That is correct. 16 Ο. But then you have what amounts to a 17 stop-loss if the unit processes a loss over six 18 consecutive years, correct? 19 Α. Correct. 20 Ο. So under your proposal, a particular unit 21 could effectively be uneconomic for six consecutive 2.2 years before it would be withdrawn from the PPA 23 agreement -- from the PPA? 24 Correct. And by "uneconomic," it simply Α. 25 means that the costs do exceed the benefits. It may

3337 be by a fairly small margin, but a negative number is 1 2 a negative number. 3 Thank you. That's all I have. MR. DARR: 4 EXAMINER SEE: Mr. Nourse? 5 MR. NOURSE: Thank you, your Honor. 6 7 CROSS-EXAMINATION 8 By Mr. Nourse: 9 Ο. Good afternoon, Mr. Taylor. 10 Α. Good afternoon. 11 I'll ask you to turn to page 4 of your Ο. 12 testimony, and on that page you're introducing your risk allocation proposal. And I think you might have 13 14 stated earlier in questions from Sierra Club counsel 15 that you don't believe AEP Ohio has skin in the game 16 under the proposed structure; is that correct? That's correct. 17 Α. 18 Okay. And would you agree that costs Ο. 19 that are going to be passed through to retail rates 20 under the proposal will be subject to audit, prudence 21 review, potential disallowance as part of that retail 2.2 ratemaking process? 23 I agree that there are some limited Α. 24 auditing elements of the PPA. I think it is Mr. Lane 25 Kollen's testimony that a lot of that oversight needs

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1	to be strengthened because it's not clear what sort
2	of Commission control there would be over the PPA in
3	its current as it's currently written.
4	Q. Okay. When you say "limited potential
5	for review and disallowance," is that based on your
6	review of the contract, the proposed contract?
7	A. That is, yes.
8	Q. What's your understanding of when that
9	limited exposure would occur?
10	A. I don't know. I did not study the draft
11	contract closely, so I am not in a position to
12	provide any sort of expert testimony and exactly what
13	the regulatory oversight provisions of the contract
14	are. It's my impression that they are somewhat
15	light.
16	Q. Okay. So is it fair to say that you
17	would agree there's some risk for AEP Ohio incurring
18	costs under the contract and then not getting retail
19	rate recovery?
20	A. I don't know what sort of Ohio Commission
21	disallowance potential there is, given that the
22	contract, arguably, comes under FERC jurisdiction.
23	So I think a lot of it depends on what sort of
24	parameters are ultimately agreed to in a final
25	determination here.

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3339 1 Okay. But as far as the proposed Q. contract, you haven't reviewed it to determine 2 3 whether there are unique provisions in the PPA that 4 give AEP Ohio cost decision-making as a buyer under the contract? 5 There are provisions that give 6 Α. No. 7 AEP Ohio a place on an operating committee and a voice in the fuel contracting and some other elements 8 9 associated with the PPA facilities. 10 Ο. So AEP Ohio as the buyer in the contract 11 has authority to approve fuel contracts; is that one 12 thing you mentioned? 13 Α. I believe they have a role in it, yes. 14 Ο. Do you know whether they have an approval 15 role? 16 I don't recall. Α. 17 Q. How about for significant capital 18 investments, do they have an approval role for those 19 under the contract? 20 Α. I don't recall specifically. 21 Okay. And you mentioned the operating Q. 2.2 committee. What's your understanding of that role? 23 That there is a member from AEP Ohio and, Α. 24 I believe, one member from AEPGR, and that they would 25 be meeting periodically to discuss budgets and

1 cost-related and performance-related issues related 2 to the PPA units.

Q. So is it fair to say your understanding of the contract exposes AEP Ohio to prudence findings or imprudence findings relative to capital costs, fuel costs, and O&M?

A. Again, I don't know what sort of statutes would govern this from the Ohio Commission versus the FERC regulation issue, so I am reluctant to put into the record a yes, I agree that there are prudence or disallowance risks. A lot of it will depend on the details of the final contract.

Q. Okay. And given that you don't know the extent of that exposure, I gather you didn't consider that when you stated that AEP Ohio had no skin in the game under the proposal?

17 Α. Correct. And I think that the idea of having 20 percent of the costs and benefits being 18 19 borne or enjoyed by the company provides a good 20 incentive mechanism to make sure that they are doing 21 everything they can to minimize the costs of 2.2 operating these facilities to minimize their fuel 23 costs, to minimize the capital outlays, and to 24 maximize the selling of the units' capacity, energy, 25 and ancillary services into the PJM markets.

So I think that to the extent that there 1 2 may be some sort of a prudence or limited oversight 3 element, I think the idea of structuring the PPA 4 rider that really has a 20 percent kind of cost-benefit sharing mechanism is a very good 5 6 strengthening element for the PPA rider. 7 Mr. Taylor, setting aside your Ο. recommended modifications, would you acknowledge that 8 9 the PPA proposal as the company proposed it 10 represented a trade-off of interests, a balancing of 11 interests as between the buyer and seller? 12 Α. I don't know the negotiation history behind the draft PPA. Generally, that's a statement 13 14 that you can make about any negotiated agreement. It 15 is a meeting of the minds of buyer and seller, but I 16 don't know the history of exactly how this affiliate 17 transaction was put together. 18 Okay. Well, absent the PPA, would you Ο. 19 agree that provided that these units would be 20 operated for, you know, for the next, let's say, 20 21 years, would you agree that AEP Generation Resources 2.2 would be able to keep all profits that had occurred 23 where the market prices are above their costs? 24 Α. Yes. 25 Okay. And under the proposed PPA, that's Ο.

not the case, right? 1 2 That's correct. Α. 3 And that's because the costs are being Ο. incurred and netted against all the revenues 4 5 associated with these generation units at the retail level from the PPA rider. 6 7 That's correct. Α. 8 Ο. Okay. Now, would you agree that your 9 flex-down ROE proposal will serve as a disincentive 10 for AEP Generation Resources to make capital 11 investments? 12 Α. No. I think if the capital investments 13 are appropriate for the long-term health of the 14 facility, I think that AEPGR will be well-served to 15 make whatever decisions in the operation or capital 16 investment for the facilities that will maximize the 17 value of the facilities. 18 But there are a lot of things that can Ο. 19 affect the ROE for a generation unit, correct? 20 Α. Correct. 21 Ο. AEP Generation Resources is not going to 2.2 be able to just look at an individual investment and 23 make it on the merits of that investment, are they, 24 under the ROE flex-down proposal? 25 Well, this is assuming that the ROE is Α.

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3343 1 even getting flexed down. If the units are operating 2 in a lucrative market environment and their costs are 3 being minimized, the flex-down doesn't kick in. 4 Basically AEPGR would make the full Commission-authorized ceiling or the formulaic ROE 5 6 that the Commission has approved. 7 So it's not a foregone conclusion that the ROE is going to be less than that. It would only 8 be less than that under those circumstances where the 9 10 market prices are very low and the cost of the units 11 are above market. 12 Ο. Are you saying we don't need the 13 flex-down ROE? 14 Α. I think that it's a very good No. 15 mechanism to have in place to ensure that the best 16 decisions are being made by AEPGR. 17 Ο. Okay. Well, what drives the operation or 18 triggering the ROE flex-down mechanism you're 19 proposing is market prices, correct? 20 Α. That's one of the parameters that feeds 21 into the flex-down process. 2.2 Ο. Well, revenues, the market revenues that 23 are being received, will determine whether for any 24 given time period, the PPA rider would be a charge or a credit, correct? 25

3344 The market revenues and the costs of the 1 Α. 2 generation that is providing the capacity and energy 3 that is yielding those revenues. 4 So the GR -- if I refer to "GR," do you Ο. know what I mean? 5 6 Α. Yes, I do. 7 Okay. So GR will be more cautious about Ο. 8 making capital investments not knowing those future 9 market prices, correct? 10 I don't know. I think that if a capital Α. 11 investment is going to make sense for the long-term 12 value of the facility, it will make sense for GR to 13 make that investment. 14 Well, lowering costs to eliminate risk of Q. 15 nonrecovery under the zero ROE flex-down proposal 16 would be one way for GR to manage that risk, wouldn't 17 it? If you could ask the question again, I 18 Α. 19 didn't entirely follow. 20 Okay. Well, lowering costs by not making 0. 21 capital investments would be one way that GR would 2.2 manage the risk associated with your flex-down 23 proposal, wouldn't it? 24 I think, I mean, the whole Α. Yes. 25 incentive mechanism is in place to try and encourage

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1	GR to lower their costs. If deciding not to make an
2	appropriate capital investment for a short-term
3	situation could be disadvantageous, though, to GR, if
4	they could spend a million dollars and save several
5	million over later years, that's going to be in their
6	interest to go ahead and do that.
7	Q. Okay. On your 20 percent "skin in the
8	game" proposal, is that recommendation financially
9	equivalent of only providing a 2,500-megawatt hedge?
10	A. If you could elaborate on where you're
11	getting the 2,500 megawatts.
12	Q. Yeah. You're aware that the proposal by
13	the company is to provide a 3,100-megawatt hedge?
14	A. Yes.
15	Q. Okay. And reducing that by 20 percent
16	financially through your proposal would reduce the
17	level of hedge to approximately 2,500; is that
18	correct, 2,500 megawatts?
19	A. I hadn't really thought of it that way,
20	but I will accept your math.
21	Q. Okay. So is your 80/20 proposal, as I
22	understand it, your explanation on page 6, you talk
23	about the dead band, which I believe would be from
24	the we'll call it the authorized ROE level down to
25	zero; is that right?

3346 That's correct. So the 80/20 does not Α. apply during the dead band of the ROE flex zone, so that makes the previous discussion about 2,500 megawatt equivalent hedge a little bit murky because the 20/80 percent split only occurs really on the outer ranges beyond that flex zone. Well, but in the dead band, as you call Ο. it, the company is at risk for an ROE that goes down to zero, correct? Α. That is correct. Basically, the flex-down provision ensures that customers would not see one cent of a PPA rider on their bills at the same time that AEPGR was making a profit. So --And that --Ο. -- until the profits go down to zero, the Α. equity portion, there would be no PPA rider passed through to customers. And that ROE reduction is not based on Ο. any imprudent decision by the company or mismanagement, correct? Correct. It would be strictly a function Α. of the company doing its best, but still having market forces perhaps yield results that have the units for some period of time at above-market prices. So it's not meant to be an imprudence kind of charge

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3347 at all, it's meant to be an incentive mechanism and 1 2 an insulating mechanism to make sure that customers 3 don't even see these PPA rider charges at the time 4 that AEPGR is actually making profits. Okay. And on page 8 you refer to pretax 5 Ο. 6 revenue a couple times. Do you see that? 7 Pretax return on equity, yes. Α. What's the significance or the 8 Ο. Yeah. 9 purpose of talking about pretax ROE? 10 Α. That's what drives a revenue requirement 11 calculation for the PPA costs. 12 Ο. Well, does the company get to retain pretax earnings? 13 14 Α. Those are the earnings pretax, so No. 15 they include effectively two components; they include 16 the taxes that the company would be paying on their earnings and then the after-tax portion of the 17 18 equity. 19 So is that like saying I get a higher Q. 20 paycheck if they didn't take out all the taxes? 21 Effectively, yes. Unfortunately, the Α. 2.2 customers in a fully functioning PPA rider that is in 23 the money wouldn't be paying the pretax numbers 24 because they've got to pay AEP sufficient dollars 25 such that AEP can pay the state and federal taxing

3348 authorities and still earn their after-tax return on 1 2 equity. 3 I understand the revenue requirement, Ο. 4 Mr. Taylor, but it's not really an ROE for anyone, is it? 5 It is from the customer's standpoint. 6 Α. 7 It's a pretax or a tax-loaded ROE. But it's not realized by the company, 8 Ο. 9 correct? 10 That's correct. It has a tax element on Α. 11 top of it, so it is a number that is what the 12 customers would be paying on the rate base as far as 13 the equity portion of the rate base. 14 And that's a revenue requirement; it's Q. 15 not an ROE, correct? 16 I still see it as an ROE. It's just --Α. 17 it's the revenue requirement that's associated with 18 the ROE along with the taxes that would need to be 19 paid on that ROE. 20 0. On page 9 in your answer that starts on 21 line 8, you mention a couple times what you 2.2 characterize as the Commission negotiating the PPA. 23 Do you see that? 24 Negotiating the long bilateral cost of Α. 25 service contract, yes.

And then down in line 14, "effectively 1 Ο. 2 negotiating with AEPGR." 3

Α. Correct.

4 Q. All right. Just to be clear here, what you're really talking about is a conditional approval 5 in the Commission's decision imposing certain 6 7 conditions?

I'm not actually referring to a 8 Α. Yes. 9 negotiation session where the Commissioners would get 10 in the room with AEP. Basically, the application is 11 an initial proposal by AEP. The Commission can 12 propose modifications. AEP may look at those 13 modifications in a final order and decide that they 14 don't want to move ahead with the deal, so there are 15 those back-and-forth risks, but I see this as an 16 application that is AEP's initial position. And I 17 think that the recommended elements of my testimony 18 are important considerations for the Commission to 19 fold into a final response to make sure that a PPA 20 rider, if the Commission wanted to move ahead with 21 one, was, indeed, in the customers' best interest. 2.2 Ο. Okay. So it's similar -- is it similar 23 to your understanding to what happens in an electric 24 security plan where the Commission may impose

25 conditions and then the company gets to decide

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3350 1 whether to accept them or not after the order is 2 issued? 3 Α. Yes. 4 And in this case both the buyer and the Ο. 5 seller to the proposed contract would have to go back and review, basically, on a take-it-or-leave-it basis 6 7 what the Commission's saying in their order, correct? That is my understanding, yes. 8 Α. 9 Q. All right. Well, that's not how most 10 negotiations work; would you agree? 11 Well, I guess by using the word Α. 12 "negotiation" in the context of the paragraph on page 13 9, I'm, again, not referring to a negotiation where 14 people are getting together around a table and 15 arquing out various positions or provisions. AEP has 16 stepped in with an initial proposition here that I don't think the Commission needs to take on a 17 take-it-or-leave-it basis. 18 19 Q. Okay. 20 Α. I think that there is room for pushing 21 back and establishing conditions, and I'm referring 2.2 to that slow-motion process, perhaps colloquially, as 23 "negotiation." 24 Okay. I just wanted to clarify it, thank Q. 25 So you have a question at the bottom of page 9, you.

3351 1 your answer is on page 10, and this deals with why you think GR would accept the flex-down proposal, 2 3 right? 4 Α. Yes. And as part of your answer you're saying, 5 Q. down on line 9 on page 10, we know that GR's 6 7 preferred outcome is a PPA. Α. 8 Correct. 9 All right. But what you know about the Q. 10 preferred outcome is what's been proposed, correct, 11 not what's been amended, the proposal in your 12 testimony? 13 Α. That's a fair statement, yes. 14 Now, when it comes to part of your answer Q. 15 up on line 4, for example, you say, "The capital 16 associated with the PPA units is sunk." Do you see 17 that? 18 Yes, I do. Α. 19 Now, sunk capital is only a portion of Q. 20 what would drive the ROE under the PPA, correct? 21 I think that it is expected that there Α. 2.2 will be some ongoing capital expenditures. There 23 are, invariably, with any power plant. I think the 24 majority of the rate base that the ROE would be 25 applied to is invested capital. It's money that was

1 spent years ago in building these facilities 2 originally, and it's the net book value net of 3 accumulated depreciation. 4 Okay. Regarding your ROE flex-down Q. 5 proposal, your stated purpose of incentivizing the 6 company and the companies, meaning AEP Ohio and 7 AEPGR, to be incentivized to spend money wisely, let's say; is that fair? 8 9 Α. And to pursue revenues vigorously, yes. 10 Q. Okay. So to, yeah, to maximize revenues 11 or optimize CK and also to manage costs to the 12 smallest amount reasonable. 13 Α. Correct. 14 Okay. And, well, would you agree that Ο. 15 the ROE would not have to flex all the way down to 16 zero to accomplish those same goals? 17 Α. If the Commission adopts a flex-down and 18 wants to consider a different floor than zero, I 19 think at least having a low floor is a good direction 20 to go to make sure that the appropriate incentives 21 are in place. But I would agree that zero isn't an 2.2 absolute necessity to provide the incentives that are 23 behind my testimony. 24 Okay. Let's talk a little bit about how Q. 25 both of your proposals, the ROE flex-down and the

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3353 1 skin in the game risk allocation proposal, work 2 together, okay? So we talked about the dead band 3 earlier. And is it true that the 80/20 allocation 4 would apply above and below the dead band? 5 Α. Correct. Yes. So in reality under your proposals, GR 6 Ο. 7 could earn an ROE that's negative, correct? That is correct. 8 Α. 9 Specifically, if going down to zero does Q. 10 not avoid the PPA rider charge and there's an 11 additional increment by which costs exceed revenues, 12 your proposal would also have the company take an 13 additional 20 percent of the charge even below a zero 14 ROE, correct? 15 Α. That's correct. 16 MR. DARR: Objection, your Honor. The 17 reference there to company, in this case it actually 18 makes a difference so I'm going to ask for some 19 clarification on that. 20 MR. NOURSE: I think he already answered, 21 your Honor. 2.2 THE WITNESS: I would like to expound on 23 it. 24 EXAMINER SEE: Just a minute. 25 Go ahead and answer the question,

1 Mr. Taylor.

2	A. In the spirit of the question, I wanted
3	to emphasize that, yes, the ROE could go negative if,
4	indeed, we left the lower end of the flex zone and
5	were now in a position of an 80/20 split of the net
6	costs that exceeded the benefits of the PPA units.
7	There's also the flip side, that AEPGR,
8	presuming that's the way the PPA is structured,
9	getting to Mr. Darr's point, there is a question as
10	far as who would actually be enjoying these
11	additional profits or bearing these profit
12	negative profit implications on the low end, but
13	setting that aside temporary, whoever it is, they
14	will be in a bidirectional and a balanced kind of
15	incentive structure where they actually could earn
16	more than the ceiling ROE in instances where the PPA
17	rider is very positive, has benefits that exceed the
18	costs.
19	So the flex zone flexes up to the
20	Commission-authorized rate of return, then all of the

net benefits above that are going to be split 80/20 between customers and the company, and I'll leave that murky for a moment as far as whether that's AEP Ohio or AEPGR. But in that instance they would be enjoying a return on equity that would actually be

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greater than the authorized return. So I think it's
a -- the proposition that I've put into my testimony
here is a balanced one.

Q. So the flex zone or the dead band,
100 percent of the risk of nonrecovery of
\$137 million is on AEP Ohio and AEP Generation
Resources, correct?

In a large sense, yes, but I would put an 8 Α. 9 asterisk next to that answer in that to the extent 10 that a facility is uneconomic, part of what drives whether the facility is uneconomic is that rate base 11 12 number. And that's part of the question that this 13 case is revolving around is, is the cost of this 14 hedge, the pricing that's been built in with this 15 PPA, at market? And if it isn't or if the Commission 16 decided to reject the PPA and AEP had to take other 17 actions, one of those other actions may be to turn around and sell those units. 18

If a unit is uneconomic at a rate base of, say, \$300 million, a buyer is not going to step forward invariably and buy it for 300 million. They're probably going to pay less. So this is a long-winded way of saying in the flex zone as far as being at risk of not making the rate of return on, in my example, a \$300 million rate base, the alternative

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1	is to sell the facility and probably sell it for
2	just, let's say, 270 million. At a \$270 million
3	purchase price or transfer price or rate base,
4	effectively, that's where you would be back into
5	presumably a reasonable ROE.
6	So a lot of this can get murky as far as
7	what is the appropriate rate base for these units,
8	and that's not at issue as a direct point in this
9	proceeding. The flex-down ROE effectively gets at
10	that, though.
11	Q. Okay. But, again, for the dead band, the
12	entire dead band, \$137 million, that risk is driven
13	by market revenues, and nothing that the companies
14	have done in managing the facility is a hundred
15	percent on the companies, correct?
16	A. It is primarily, yes, although it is not
17	just the managing of the assets but the rate base,
18	the net book value that's been established for those
19	assets which may not be a market defensible price.
20	Q. Okay. And, again, you're not stopping at
21	zero. Combining both of your proposals can actually
22	produce a negative ROE; is that correct?
23	A. That is correct, as customers would also
24	be then kicking in what I think some intervenor
25	experts have termed a subsidy by kicking in

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1	80 percent of the losses below that dead band.
2	Q. Okay. Now, on the top of page 13,
3	carryover sentence from page 12 well, I'm sorry.
4	It's not actually a carryover sentence. The first
5	sentence on page 13 says your proposal would make the
6	PPA self-policing and reduce the need for PUCO
7	oversight.
8	A. Yes.
9	Q. Okay. And are you saying that the costs
10	that flow through the PPA rider would not be subject
11	or would not need to be subject to audit and
12	disallowance by the Commission?
13	A. No. I'm saying it would simply reduce
14	the need, but not eliminate the need.
15	Q. Okay. Would you turn to page 15. The
16	answer that's at the bottom of page 15 and carries
17	over to page 16, you're saying that the Commission
18	should protect consumers from a scenario where there
19	would be charges in the next couple years and then
20	the company sells the PPA rider units at a high price
21	when they turn profitable. Is that true?
22	A. That's the essence of my Q and A, yes.
23	Q. Okay. And, to be clear, this criticism
24	or this concern does not apply to the situation
25	that's dealt with in the contractual language of the

PPA where a unit could be transferred subject to the buyer agreeing to follow the terms of the PPA and keep the deal in place; that's not what you're talking about, is it?

A. So just so I understand the basis of your question, this is where AEPGR would sell or transfer the unit to some other entity --

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Q. Right.

9 A. -- who would continue to honor all of the 10 aspects of a reconstituted PPA, what's been approved 11 by the Commission and approved ultimately by AEP Ohio 12 and AEPGR that may contain elements like what's in my 13 testimony.

14 It would be the signed contract, whatever Q. 15 it is, whether or not it incorporates all your 16 recommendations. I'm just trying to clarify your 17 example which seems to be one where the contract, the 18 PPA, would be terminated such that it would not flow 19 through the PPA rider, customers wouldn't get the 20 benefits as you're describing when the plants turn 21 profitable. So that's the situation you're 2.2 addressing here, right?

A. Yes. Certainly in this Q and A my
concern was surrounding a new owner taking full
ownership rights to a facility, paying a price for

3359 1 the facility that would give them full control and 2 not having to honor any sort of conveyance of 3 capacity and energy and ancillary service benefits 4 back to AEP Ohio and ultimately to the customers. That's an interesting question as far as 5 6 whether a third party now could buy the facility and 7 assume all of the contractual obligations of the PPA. All I'm asking is whether that latter 8 Ο. 9 scenario, subject to my question, was what you were 10 addressing here or not. 11 It was not what I was addressing. Α. I was 12 assuming this was a scenario that would have a new 13 owner and full flexibility how to use this facility 14 that they now owned. 15 MR. NOURSE: Thank you, Mr. Taylor. 16 That's all the questions I have. 17 EXAMINER SEE: Mr. Beeler? 18 MR. BEELER: No questions, your Honor. 19 EXAMINER SEE: Any redirect, Mr. Kurtz? 20 MR. KURTZ: Could we have a few minutes, 21 please? 2.2 EXAMINER SEE: Yes. 23 MR. KURTZ: Yes. 24 (Recess taken.) 25 EXAMINER SEE: Let's go back on the

3360 1 record. 2 3 REDIRECT EXAMINATION 4 By Mr. Kurtz: 5 Mr. Taylor, do you recall some questions Ο. from counsel for AEP about essentially equating the 6 7 prudence review process that the Commission has under the proposed PPA and your "skin in the game" 8 9 proposal? 10 Yes, I do. Α. 11 Ο. Does the prudence review provide the same 12 type of regulatory protection as the skin in the 13 qame? 14 Α. It's not my understanding that it does, 15 and that prudence reviews are kind of a one-time, one-off situation. The skin in the game would be an 16 ongoing, day-to-day, week-to-week, month-to-month 17 18 kind of incentive mechanism to encourage AEP Ohio and 19 AEPGR to do the right thing, to make the right 20 investment decisions, to try to minimize costs and 21 maximize revenues. 2.2 A prudence review is really more of a 23 one-off kind of circumstance that would not be a 24 regular incentive kind of element. 25 Under your understanding of the proposed Q.

PPA contract, is there a disincentive or a regulatory disincentive, what's been termed as a poison pill, from the Commission exercising the prudence jurisdiction?

A. Yes. Actually, anything that would
determine or result in a failure to make full cost
recovery is dealt with in Article 2.

8 Article 2.3 is an early termination right 9 that basically says subject to the buyer complying 10 with its obligations under Article 5 and provided 11 buyer, AEP Ohio, in other words, is not a defaulting 12 party, buyer will have on or after the first anniversary of the start date the right, but not the 13 14 obligation upon no less than 365 days' notice to 15 seller, to terminate in whole this agreement prior to 16 the end date -- and here's the important clause -- if 17 retail cost recovery for buyers' costs hereunder is discontinued or substantially diminished, including 18 19 for a one-time significant disallowance for retail 20 rate recovery of costs.

21 So this clause basically gives AEP the 22 threat that the entire PPA could be crushed and 23 eliminated if the Commission acts on a prudence 24 issue. So that ends up kind of holding a sword over 25 the Commission's head of "don't be harsh" in any sort

of prudence review, because any sort of significant disallowance for buyers' costs being discontinued or substantially diminished then could trigger this poison pill clause if this clause stays in the final PPA.

Q. And if that clause stays in the final
PPA, what happens with respect to the remaining net
book costs and retirement costs?

A. I think Mr. Kollen may be getting to this
in a little more detail, but, effectively, my
understanding is that that triggers all of the
retirement costs then being borne by the ratepayers.
So there's a substantial additional cost element that
comes into the picture very quickly.

Q. And if the Commission makes a prudence disallowance in addition to retirement costs, what about remaining net book costs?

A. Those remaining net book costs also come
into the picture as a cost that would be shouldered
by the ratepayers under the provisions here.

Q. So those two things constitute the poison pill, repayment of a hundred percent of retirement costs, or payment of a hundred percent of retirement costs and payment of a hundred percent of the remaining net book costs.

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1	A. That is my understanding, yes.
2	Q. Do you recall questions from counsel for
3	AEP about with the ROE flex-down there would be a
4	disincentive for AEPGR to invest in needed capital?
5	A. Yes.
6	Q. Without the flex-down, what incentive
7	would they have to invest in more rate base?
8	A. Well, that's a good point. The flex-down
9	in this zone is really status quo right now. AEPGR
10	gets to enjoy 100 percent of the benefits and
11	100 percent of the costs under the status quo. So as
12	it stands right now, there is no sharing mechanism.
13	There is nothing on the lower end. Their ROE is in a
14	position to go as negative as the markets will take
15	it under the current provision.
16	So what I've got in my testimony is
17	really a structure that will allow some sharing of
18	both the pain and the benefits of this system and
19	provide actually some protections on the downside
20	that AEPGR does not currently have.
21	Q. Without the flex-down, would AEPGR have
22	an incentive to overinvest in new capital and earn a
23	return on that goldplating, so to speak?
24	A. Assuming that the Commission were to
25	accept the PPA and the PPA rider as it's been

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proposed by AEP in the application, yes. They would 1 2 be guaranteed a return on equity that would be 3 formulaic and set at a level where they very well 4 could have an incentive to overspend on these plants 5 because they're guaranteed a very attractive final rate of return. 6 7 If the ROE did flex down to zero, would Ο. there be any debt service or -- debt service and/or 8 9 cash flow benefits or ramifications that would still 10 flow to AEPGR? 11 Α. Yes. When we're talking about the ROE 12 flex-down we're just talking about the equity profits, so the revenue requirement structure of the 13 14 PPA still includes a lot of cash flow that goes to 15 AEPGR in the form of depreciation and debt service 16 components. I think the depreciation is 17 approximately \$90 million per year. So we're talking 18 about significant additional cash elements that are 19 unaffected by the flex-down process. 20 Ο. Let's talk about the negotiation, the 21 take-it-or-leave-it, but effective negotiation 2.2 between the Commission and AEPGR. Do you remember 23 those questions? 24 I do. Α. 25 You may have not meant this, but I think Ο.

3365 one of your answers was that if the Commission issued 1 2 a conditional order, that would be take it or leave 3 it as to AEPGR. Did you --4 Α. Yes. 5 Ο. -- say that? 6 I did say that, and that was perhaps a Α. 7 more draconian kind of construct than is probably the case. Obviously, if the Commission comes in with an 8 9 order that AEP is not satisfied with, AEP does have 10 the ability to request rehearing and the Commission 11 can hold further proceedings. 12 Ο. Well, actually, they don't need to. It's 13 paper at that point. 14 Α. It's paper at that point, okay. So 15 effectively there is a back and forth. 16 But under your understanding, is there Ο. 17 any limit on the number of order on rehearing, on 18 second rehearing application, second order on 19 rehearing, third application, could that de facto 20 negotiation go on throughout that process? 21 That's my understanding, is there's no Α. 2.2 limit on the back and forth there. So if my original 23 questions made it sound like it was a one-shot 24 application and one-shot Commission decision, I wish 25 to revise the record to reflect that there's more

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1	back and forth available in the regulatory process.
2	Q. Do you recall questions indicating that
3	under your flex-down proposal, a hundred percent of
4	the risk is on AEPGR?
5	A. Yes.
6	Q. Who has a hundred percent of the risk
7	now?
8	A. AEPGR has 100 percent of the risk across
9	the entire range.
10	Q. Now, under the company's projections, if
11	the company's projections are true or accurate or
12	come to pass, would they really have much risk?
13	A. No. And I really am directed to Kelly
14	Pearce's testimony, one of the exhibits, the Exhibit
15	KDP-2 that I reviewed. It shows the four scenarios
16	that he looked at, and setting aside the 2015
17	numbers, because, obviously, we're in late-October of
18	2015, this PPA rider is not going to be a 2015 issue
19	at all. Just focusing on the nine years in his
20	exhibits here, he's got four different scenarios, and
21	two of those scenarios every year of the entire
22	nine-year period is showing positive benefits,
23	positive net benefits, so there's no flexing down at
24	all there. These are benefits that would be shared
25	on the 80/20 process.

1 In one of the other scenarios, the 2 weather-normalized case, there are really only two 3 initial years and then a very minor year later in the 4 study period where there are some negative numbers, 5 and they're fairly small. The only significant case 6 is the most pessimistic case, the 5 percent 7 lower-load forecast, which shows losses in the nine 8 years. 9 So out of all of the numbers on the page, 10 the overwhelming majority of these numbers are 11 indicating that it's likely that over the long term, 12 there would be positive net benefits associated with 13 the PPA rider. So to focus entirely on the negative 14 scenario where there are losses that need to be 15 captured in the flex-down process or in the 80/20 16 zone that is even on the lower side of the flex-down 17 zone is really not aligned with the forecasts that 18 have been entered into this case.

19

Q. Thank you.

A. So there's only one year, actually -- as I pointed out in my testimony, there's only one year where the flex-down would go all the way to zero in all of these four scenarios and all of the years that are covered by them.

25

Q. So nine times four is 36. And one year

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1	out of the 36-year study the ROE would go to zero?
2	A. Correct.
3	Q. And it would simply be one year.
4	A. Correct.
5	MR. KURTZ: Thank you, Mr. Taylor.
6	EXAMINER SEE: Recross for this witness.
7	Mr. Mendoza?
8	MR. MENDOZA: No questions, your Honor.
9	EXAMINER SEE: Ms. Bojko?
10	MS. BOJKO: No, thank you.
11	EXAMINER SEE: Ms. Bair?
12	MS. BAIR: No questions.
13	EXAMINER SEE: Mr. Darr?
14	MR. DARR: Just a couple, your Honor.
15	
16	RECROSS-EXAMINATION
17	By Mr. Darr:
18	Q. Mr. Taylor, you're not endorsing the
19	results of Dr. Pearce's study, correct?
20	A. I am not. I am simply pointing out that
21	the numbers as reflected in the record indicate
22	that's not likely that a flex-down to an ROE of zero
23	would occur.
24	Q. And just so it's clear, under the status
25	quo, meaning where we are sitting today absent a

1 Commission order, there is no risk of an uneconomic 2 unit that is shifted to retail customers; isn't that 3 correct?

A. That is correct.

4

Q. And under your proposal there is a chance
of some of that risk being shifted to retail
customers if the PPA units lose at such a level as to
be more than the implied ROE flex-down, correct?

9 A. That is correct. The flex-down is an 10 insulated zone where customers won't bear any costs. 11 If the net costs are greater, then there is the 12 sharing on the part of the customers. But part and 13 parcel to that is the sharing on the upside, and 14 that's where I see balance in the skin in the game.

The 80 percent/20 percent proposal that I've put here is that customers would have an opportunity to share in the benefits and receive credits on their bills, particularly in instances where market prices may be very high which offers this hedging and counterbalancing kind of effect that is kind of the reason for the PPA rider.

Q. So it's fair to say that there would be some sharing of the risk and benefit that would not occur under the current system if the Commission approved a proposal such as yours, correct?

3370 I'm not sure I understood all of the back 1 Α. 2 and forth. If you could ask that one more time. 3 Let me try it again. Given the status 0. 4 quo is that customers are not at risk for the gains 5 and losses associated with the AEPGR units, your 6 proposal would reassign some of the benefits and 7 risks associated with those units to retail 8 customers, correct? 9 Α. That's correct. And those gains or costs 10 would be effectively countercyclical to what might be 11 happening in the marketplace. 12 MR. DARR: That's all I want. Thank you. 13 EXAMINER SEE: Mr. Nourse? 14 MR. NOURSE: Thank you, your Honor. 15 16 RECROSS-EXAMINATION 17 By Mr. Nourse: 18 Mr. Taylor, do you recall counsel for OEG Ο. 19 asking you about overinvestment and goldplating under 20 the proposed PPA? 21 Α. Yes. 2.2 Q. Is it your understanding that AEP Ohio, 23 as the buyer, has a veto right under the contract for 24 any significant capital investment? 25 MR. DARR: Objection, your Honor. Asked

1 and answered. 2 EXAMINER SEE: Objection is overruled. 3 You can answer the question, Mr. Taylor. Α. That is my understanding of the PPA. 4 So AEP Ohio would be at risk for 5 Ο. 6 nonrecovery if they consent to a imprudent capital 7 investment, correct? Potentially. There would have to be an 8 Α. 9 investigation on the part of the Commission to 10 determine prudency and, as I alluded to Section 2.3 11 of the current draft PPA, there is an "honest to God" 12 concern about a poison pill associated with an 13 imprudency proceeding. 14 Again, I asked you if they were at risk Q. 15 for nonrecovery; is that correct? 16 MR. DARR: Objection. Asked and 17 answered. 18 MR. NOURSE: Well, your Honor, I think he 19 went into a different explanation. I want to be 20 clear about this line of questioning. 21 EXAMINER SEE: The witness can answer the 2.2 question. 23 I think my previous answer did address Α. 24 that in that I said yes, AEP Ohio would be at risk of 25 cost -- of not getting cost recovery, however, there

3372 1 are these additional elements that are an important counterbalance to that that I think the Commission 2 3 needs to be aware of. 4 Ο. Thank you. Your prior answer said potentially, so "yes" is what I was looking for. 5 6 The next question relates to what you 7 characterize as the poison-pill provision, so I want to ask you about that. Do you agree that the 8 9 Commission is reviewing the proposed PPA in this case and determining whether it's a good deal to proceed 10 11 with? 12 Α. That is my general understanding. Okay. And so do you agree that if 13 Ο. 14 everyone -- well, if the companies and the 15 Commission, you know, agree that it's a good deal and 16 should be -- we should move forward with it, that that should be a final decision and a deal is a deal? 17 18 Yes. Certainly, my testimony is that Α. 19 there should be elements included in that deal --20 Q. Right. 21 -- such as the risk sharing and economic Α. 2.2 tests and other things, but, yes, assuming that there 23 are appropriate risk sharing and loss tests and other 24 things in the process, then if all the parties are in 25 agreement, then a deal is a deal.

Q. And this is a long-term proposal. It's not something that would be subject to temporary price changes in the market or temporary increases in costs or anything else temporary, correct?

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Correct. I mean, I think the testimony 5 Α. of Steve Baron and Lane Kollen have focused on the 6 7 fact that this really should be of a distinct period 8 of time, like 15 years, rather than the long-term, 9 the ultra-long-term nature of what AEP has proposed. 10 But subject to that, yes, I think that if the 11 Commission has in place the kind of parameters that I 12 specified in my testimony, then absent any -- or, in light of any changes in the marketplace as far as 13 14 pricing, this hedging deal would be a deal that all 15 parties are signing onto and moving ahead with.

Q. Okay. So would it be fair, and setting aside -- even assuming the Commission adopted your test for uneconomic unit to be removed, would it be fair for a future Commission to disallow costs whenever there would be a period of a charge under the PPA rider in the future without regard to whether the costs were imprudently incurred?

A. That's the important distinction. I was
pausing because, obviously, future Commissions have
to have the ability to review prudency issues and

3374 1 disallow costs that are deemed to be imprudent. 2 And I know there's always a touchy 3 situation about how much current Commissions can bind 4 future Commissions, but I would encourage the deal to be as ironclad as possible within the regulatory 5 constructs that are permitted in Ohio. 6 7 Okay. You also were asked earlier about Ο. 8 prudence reviews and you characterized them as 9 one-time and one-off. Do you recall that? 10 Yes, I do. Α. 11 Ο. Now, in reality, wouldn't you expect each 12 annual period under the PPA rider to be -- the costs that are flowing through to be reviewed for two 13 14 things, one is for accounting and arithmetic 15 accuracy, and, two, for prudence? 16 Α. I presume so. I don't know what the 17 frequency of review would generally be. 18 And as we discussed earlier, the buyer, Ο. 19 AEP Ohio, would have decisional rights under the 20 proposed contract regarding capital investments, fuel 21 contracts, and O&M spending, among other things, 2.2 correct? 23 Α. Correct. I think that the nice thing 24 about a risk-sharing and cost-sharing mechanism like 25 the 80/20 skin in the game is it is self-policing,

3375 and the Commission would not have to be as diligent 1 2 in these once-a-year kind of reviews to make sure 3 that all of the right decisions had been made because there would be an actual incentive for AEP Ohio and 4 5 AEPGR to be making the right decisions. 6 Okay. And, finally, Mr. Taylor, you were Ο. 7 asked earlier by counsel for OEG whether debt service and depreciation would be unaffected by your 8 9 flex-down ROE proposal. Do you recall that? 10 Α. Yes, I do. 11 Ο. And I just want to be clear, when you 12 combine both of your proposals, the risk allocation, the 80/20, and the ROE flex-down, you would agree 13 14 that the negative ROE potential we discussed earlier 15 could actually affect debt service and depreciation, 16 couldn't it? That is true. If one is outside of the 17 Α. 18 flex-down zone on the low side, then that would be 19 further eroding the cash flows that the company might 20 be hoping to receive. But, as I noted earlier, the 21 majority of scenarios here are likely to have a 2.2 sharing on the high side of the flex zone, and 23 certainly within the flex zone there would be no 24 impairment of the cash flows associated with 25 depreciation and debt service.

3376 1 MR. NOURSE: Thank you, Mr. Taylor. 2 That's all I have. 3 EXAMINER SEE: Mr. Beeler? 4 MR. BEELER: No questions, thank you. EXAMINER SEE: Mr. Kurtz? You already 5 offered --6 7 MR. KURTZ: Yes, ma'am. I move for the admission of OEG Exhibit 2. 8 9 EXAMINER SEE: Are there any objections to the admission of --10 11 MR. NOURSE: No objections, your Honor. EXAMINER SEE: -- of OEG Exhibit 2? 12 13 MR. NOURSE: I'm sorry. 14 EXAMINER SEE: Hearing none, OEG Exhibit 15 2 is admitted into the record. 16 (EXHIBIT ADMITTED INTO EVIDENCE.) 17 EXAMINER SEE: Thank you, Mr. Taylor. 18 THE WITNESS: Thank you, your Honor. 19 EXAMINER PARROT: Mr. Kurtz, you may call 20 your next witness. 21 MS. BAIR: I thought we were going next 2.2 at 3. Is that okay? 23 MR. KURTZ: I thought so, too. But we'd 24 be happy to go. 25 EXAMINER PARROT: Let's go off the

3377 1 record. 2 (Discussion off the record.) 3 EXAMINER PARROT: Let's go back on the 4 record. 5 MR. KURTZ: We call Mr. Lane Kollen. 6 EXAMINER PARROT: Please raise your right 7 hand. (Witness sworn.) 8 9 EXAMINER PARROT: Have a seat. 10 THE WITNESS: Thank you. 11 LANE KOLLEN 12 13 being first duly sworn, as prescribed by law, was 14 examined and testified as follows: 15 DIRECT EXAMINATION 16 By Mr. Kurtz: Will you identify yourself for the 17 Q. 18 record, please? 19 Α. Yes. My name is Lane Kollen. 20 Q. Do you have in front of you a document 21 entitled Direct Testimony and Exhibits of Lane 2.2 Kollen? 23 Α. Yes. 24 Was this document prepared by you or Q. 25 under your direct supervision?

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1	A. Yes.
2	Q. If I were to ask you the same questions
3	as those contained therein, would your answers be the
4	same?
5	A. Yes.
6	Q. Do you have any corrections or
7	modifications you'd like to make?
8	A. No.
9	MR. KURTZ: Your Honor, I ask that this
10	be marked OEG Exhibit 3, and Mr. Kollen is ready for
11	cross.
12	EXAMINER PARROT: The exhibit is marked
13	as OEG Exhibit 3. Thank you, Mr. Kurtz.
14	(EXHIBIT MARKED FOR IDENTIFICATION.)
15	EXAMINER PARROT: Mr. Mendoza, any
16	questions?
17	MR. MENDOZA: No questions, your Honor.
18	EXAMINER PARROT: Ms. Bojko?
19	MS. BOJKO: I do have a few. Thank you,
20	your Honor.
21	
22	CROSS-EXAMINATION
23	By Ms. Bojko:
24	Q. Good afternoon, Mr. Kollen.
25	A. Good afternoon.

3379 1 You're not an attorney, are you, sir? Q. 2 Α. No. 3 And you're not offering a legal opinion Ο. 4 through your testimony; is that correct? Α. That's correct. 5 And as I understand your testimony, 6 Ο. 7 you're recommending revisions to the purchased power 8 agreement arrangement; is that correct? 9 Α. Well, there's two areas really. One is a 10 recommendation for a series of conditions, among 11 which would be the reforming of the PPA contract, the 12 draft contract that we have, so that the costs are subject to a formulaic representation with inputs 13 14 that are specified and the source of those inputs. 15 So as I understand your recommendations, Ο. 16 they include PPA contract changes that you just discussed; is that right? 17 18 Well, they really are directed towards Α. 19 conditions. In other words, if the Commission 20 approves the PPA concept, the PPA rider concept, then 21 I have a recommendation for a series of conditions, 2.2 among which is the reformation of the contract so 23 that it reflects a formulaic representation of the 24 costs that will be incurred by AEP Generation 25 Resources and then charged to AEP Ohio.

3380 And I believe you also are recommending 1 Ο. 2 changes to the actual contract terms and conditions 3 such as the term; is that correct? 4 Α. Yes. 5 Ο. The term of the PPA. 6 Α. Yes, that's correct. I'm sorry. I 7 didn't mean to interrupt you. 8 Ο. You also are recommending limitation on 9 future revising of the contract; is that correct? 10 Yes, that's correct. Α. 11 And, thirdly, you're recommending that Ο. 12 the Commission have the ability to review and audit 13 the costs; is that correct? 14 Yes, that's correct. So that the Α. 15 Commission does not cede jurisdiction to either the contracting parties, either AEP Generation Resources 16 17 and Ohio Power or to the FERC. 18 Is that last recommendation, is that in Ο. 19 addition to the revenue requirement recommendations 20 that you're making on page 4 in the table of your 21 testimony? 2.2 Α. It is, yes. 23 Okay. So are those all the purchased Ο. 24 power agreement changes that you're recommending? 25 The list that I have here, and then some Α.

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1	of them are I would characterize as somewhat general,
2	meaning that the definitions contained in the draft
3	PPA and the terms for the different payments, for
4	example the depreciation payment, the O&M payment,
5	those types of things, necessarily would need to
6	conform to the recommendations that I have.
7	Q. Okay. And then, as I understand the
8	other two modifications to the purchased power
9	agreement, is the the first one is the
10	disallowance or removal of costs allowed to be
11	recovered; is that correct?
12	MR. NOURSE: Your honor, I'd just object.
13	I keep waiting for questions. I thought they were
14	background for something, and all she's doing is
15	summarizing, giving him an opportunity to embellish
16	what he's already said in testimony, friendly cross.
17	MS. BOJKO: Actually it's not friendly
18	cross. I don't agree with Mr. Kollen's underlying
19	approval of the PPA. I don't agree with all the
20	modifications, and I'm, frankly, trying to understand
21	the layers embedded in his testimony because it goes
22	through three sections and then it goes back and
23	talks about different sections, so I'm trying to
24	understand his full recommendations in order to be
25	able to better oppose them.

1 EXAMINER PARROT: Overruled. 2 I don't think there was an answer to that Ο. 3 I can rephrase because it didn't look like last one. you were completely understanding my question. 4 5 You're recommending that the Commission 6 through table -- the table on page 4, that the 7 Commission disallow or remove certain costs associated with the PPA; is that correct? 8 9 Α. Well, perhaps I could state it a little 10 bit differently, but that to clarify the calculations 11 and to remove certain of the costs that are present 12 in Dr. Pearce's workpapers where he made the 13 calculation of the revenue requirement impact or the 14 charges and the credits pursuant to the PPA rider. 15 And what I've done is I've identified a number of 16 problems in Dr. Pearce's calculations where those 17 calculations are inconsistent with prior Commission 18 decisions, for example, in the most recent base rate 19 case and also in the capacity case. 20 And then on this table here on page 4 21 I've quantified the effect for the calendar year 2.2 2016 using Dr. Pearce's workpapers. 23 So that was my next question. So is this Ο. 24 just an example of what the revenue requirement 25 adjustments would be for 2016, and then would you

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1 have to also make those adjustments in future years of Mr. Pearce's forecast? 2 3 Yes, that's correct. In other words, Α. 4 this is a cost side of the equation, and what 5 Dr. Pearce did was he didn't necessarily follow the 6 proposed draft PPA because that doesn't have the 7 level of detail that Dr. Pearce reflected in his 8 workpapers, but he has workpapers that extend from 9 the short period in 2015 through 2024. 10 And what I did was I just simply took the 11 first year, 2016, and quantified the effect of what I 12 believe are incorrect amounts included in his 13 calculations. 14 Okay. And then I think the last Q. 15 modification is on page 5, which is what Mr. Taylor 16 was discussing today. You actually quantified 17 Taylor's ROE flex-down recommendation; is that 18 correct? 19 Α. I did. It starts on the bottom of page 4 20 and extends to the top of page 5. But if you use 21 Dr. Pearce's calculations from his workpapers -- and, 2.2 again, you cannot do this from the draft PPA itself

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at this point. There are no formulas in there.

But if you go from Dr. Pearce's workpapers, I

There are just general descriptions of the costs.

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3384 1 calculated the effect of a 1.0 percent return on 2 equity at \$12.2 million using the company's estimate, 3 and it's 10.9 million if you use the company's 4 estimate with the adjustments that I recommend. 5 Ο. And you're the sponsoring witness of the 6 15-year recommendation for the life of the PPA; is 7 that correct? I support that, yes. But Mr. Baron, on 8 Α. 9 behalf of the OEG, also recommended that. 10 You didn't do any quantitative analysis, Ο. 11 did you, of allowing a 15-year PPA versus a 12 three-year PPA or zero-year PPA, did you? 13 I did not. Of course, a zero-year PPA Α. 14 would be zero, but I did not do any other 15 quantifications. 16 Ο. And your recommendation through the 17 15-year PPA would still allow retirement costs to be 18 passed on, or a portion of the retirement costs to be 19 passed on to customers; is that correct? 20 Α. Yes. A portion pro rata to the number of 21 years really that the PPA existed for the particular 2.2 unit, assuming that it continued to operate for that 23 period of time, compared to its total service life. 24 So if it was a 40-year, you know, service life for 25 the unit, just using that as an example, and the unit

1 operated ten years under the PPA, then customers 2 would be responsible for one-fourth, or 10 divided by 3 40, of the retirement costs.

Q. And as I understand your testimony with all those changes that you talked about, you're not recommending approval of the PPA as proposed, it has to include those recommendations. Is that your position?

A. Yes. If the Commission approves a PPA
rider in concept, I would strongly recommend that it
not do so unless all of the conditions that OEG
proposes be included, and those extend from the
recommendations of Mr. Baron and Mr. Taylor and those
that are reflected in my testimony.

Q. And you're also not precluding any other recommendations that may be necessary in order to protect customers' interests, are you?

A. I am not.

18

MS. BOJKO: That's all I have. Thank
you, your Honor.
EXAMINER PARROT: Thank you.
Ms. Bair?
MS. BAIR: No questions.
EXAMINER PARROT: Mr. Darr?
MR. DARR: No questions, your Honor.

3386 EXAMINER PARROT: Mr. Nourse? 1 2 MR. NOURSE: Thank you, your Honor. 3 4 CROSS-EXAMINATION 5 By Mr. Nourse: Good afternoon, Mr. Kollen. 6 Q. 7 Good afternoon. Α. 8 Ο. You were present for Mr. Taylor's 9 testimony a few moments ago? 10 Α. Yes. 11 Ο. And he and I had a discussion, as well as 12 with his own counsel, about the issue of the 13 Commission negotiating the PPA. Do you recall that? 14 Α. T do. 15 Do you agree with the statements and Ο. 16 responses that Mr. Taylor gave, or do you have 17 anything else that you would change if I asked you 18 the same questions? 19 Well, I think that Mr. Taylor expanded Α. 20 upon his initial answer, and there is, I would 21 consider, a give and take in a sense where the 2.2 company has made an offer. It's up to the Commission 23 to determine whether or not that offer is reasonable. 24 And to the extent that it -- you know, at least the 25 PPA rider is a concept that the Commission can

3387 accept, then we believe that there should be a series 1 2 of conditions reflected in the Commission's order 3 adopting a PPA rider. 4 The next step is AEP, of course, can determine that it will not accept those conditions 5 and withdraw its offer. So I view that as a fair 6 7 negotiating process, although it's not the typical negotiating process because of the nature of the 8 9 regulatory process. 10 Okay. Were you intending to change Ο. 11 anything Mr. Taylor said, or just summarizing your 12 understanding which you think matches up with his 13 testimony? 14 Α. Well, that's a pretty broad-based 15 I'm not sure I agree with every word that question. 16 Mr. Taylor said or would have said it exactly the 17 same, but conceptually I agree with everything he 18 said, yes. 19 Q. Okay. All right. I'd like to ask you to 20 focus on part three of your testimony, it starts on 21 page 11. 2.2 Α. Okay. 23 I'll ask you some questions about these Ο. 24 adjustments, if you can call it that. So the first 25 one is for accumulated depreciation. It starts at

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1	the bottom of page 11 there. Are you with me?
2	A. I'm at the bottom of page 11, yes.
3	Q. Your first adjustment relates to
4	accumulated depreciation, saying the amounts on GR's
5	books are significantly understated, correct?
6	A. For accumulated depreciation, that's
7	correct.
8	Q. Yeah. By the way, if I say "GR," you
9	know I'm referring to AEP Generation Resources,
10	correct?
11	A. I do.
12	Q. And in this item we're talking about
13	nonlegal post-retirement costs, right?
14	A. That's correct. And for that matter,
15	retirement costs that are incurred during the life of
16	the unit as well, what is normally referred to as
17	interim retirement. So it's both the interim
18	retirement and then the post-retirement costs or
19	dismantling costs.
20	Q. But the asset retirement obligations is a
21	separate category that we can talk about later,
22	correct? These are different costs?
23	A. Yes. That isn't the issue of dispute.
24	There are really two types of retirement costs. One
25	is characterized as a legal obligation, and those

1 costs are, for example, for asbestos removal and 2 cleanup and ash pond site remediation because those 3 are legal obligations. 4 The company, meaning Ohio Power Company, did not reverse the amounts that have been collected 5 from customers for those legally required costs, but 6 7 the other retirement costs that did recover for interim retirements or dismantling costs or 8 9 post-retirement costs, did reverse and took those as 10 income. 11 Now, what the company has included in its 12 proposal, or at least in Dr. Pearce's workpapers, is 13 recovery of costs that customers have already paid. 14 So do you know when the last test year Q. 15 was in the last base rate cases in Ohio for Columbus 16 Southern Power and Ohio Power Company -- prior 17 companies? 18 Α. I don't know. 19 Q. Okay. Early-'90s sound correct? 20 Α. I don't know. 21 You were -- well, strike that. Q. 2.2 So your recommendation assumes that costs 23 were collected in rates previously set, in bundled 24 rates, correct? 25 Α. Yes, that's correct. I reviewed the one

3390 1 or two most recent depreciation studies that were 2 performed by Ohio Power Company, Columbus Southern 3 Power Company prior to deregulation, and they 4 included interim retirements and terminal retirements 5 or dismantling costs. And so isn't looking at this one issue 6 Ο. 7 and concluding that the companies -- and I'll say companies here because it used to be Columbus 8 9 Southern Power and Ohio Power Company. There was a 10 merger. Now it's just Ohio Power Company. Is that 11 your understanding? 12 Α. That's correct. 13 Ο. But that was --14 Α. That's true. 15 Back at the time of the last rate case, 0. 16 it was the two separate companies, right? 17 Α. Yes. 18 Ο. Okay. And so isn't this adjustment 19 you're looking at like a single-issue ratemaking 20 approach of going in and looking at one cost and then 21 making a conclusion that -- making a conclusion that 2.2 those specific costs have been recovered in rates? 23 Α. No, I don't think so. The company has 24 proposed what it has characterized as a cost-based 25 tariff, and the question is what are the appropriate

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1 costs that go into that tariff. To the extent that there was an accumulated depreciation amount as of 2 3 the end of 2002 that included these costs, meaning 4 the interim retirement costs and the terminal retirement costs, then those are costs that 5 6 necessarily were paid for by customers, and that's 7 always the presumption in cost-of-service ratemaking. 8 But the company took those amounts out of 9 the accumulated depreciation reserve, took them to 10 Now, those dollars are not available for the income. 11 retirement costs, and so under the company's 12 proposal, they're asking for Ohio Power to pay those costs, and we don't think that's appropriate. 13 We 14 think that's a double count. 15 Does your approach work both ways; in 0. 16 other words, we can go into any cost or expense now and presume that it's been recovered because it was

18 reflected in the last base rate case?

17

19 Α. I'm not sure what you're referring to, 20 but the plant-in-service and other rate-base items, 21 such as accumulated depreciation, necessarily are 2.2 cumulative, and so it necessarily affects the history 23 of expenditures reflected in the plant-in-service 24 amount or the accumulated depreciation; whereas other 25 revenues and expenses are period costs, meaning that

3392 1 once you're through a year or a month, or whatever 2 the case may be, there's no accumulation of those 3 amounts. 4 Well, Mr. Kollen, you recognize the Q. difference between costs being reflected in rates and 5 6 costs actually being recovered in rates; am I right? 7 Very seldom is there a direct one-to-one Α. 8 correlation, but the ratemaking process is designed 9 to measure the costs using a test year, and then, 10 presumably, the revenues going forward are sufficient 11 to recover the costs going forward unless and until 12 there's a complaint to reduce rates or a request to 13 increase them. 14 Ο. Or unless the rate base is deregulated, 15 right? 16 Well, that's true to some extent, or Α. 17 could be. 18 Doesn't your 15-year-term recommendation Ο. 19 already avoid paying for these post-retirement costs? 20 Α. No, it doesn't. The reason for that is 21 that the accumulated depreciation is used in the rate 2.2 base, as shown in Dr. Kelly's workpapers. If that 23 accumulated depreciation -- and, remember, this is 24 cumulative through -- for all history to the date 25 which this calculation is performed. And I looked at

3393 1 2016, but the company had nine-and-a-quarter years 2 worth of computations in Dr. Kelly's workpapers, but 3 the accumulated depreciation is understated because 4 the company removed a portion of that, took it as income in 2003. 5 Now, under the capacity payment term 6 7 under the PPA and the depreciation payment term of the PPA, Ohio Power would be required to pay those 8 9 amounts both through depreciation and return on to 10 AEPGR and then recover those costs essentially 11 through the rider. 12 Ο. Okay. Speaking of deregulating rate 13 base, when did that happen? 14 Α. 2001, deregulated generation. But the 15 rates were not deregulated. In a sense, they were 16 unbundled. And between 2001 and 2014 when the 17 Ο. 18 generation units were divested, AEP Ohio paid for 19 retirements, didn't it? 20 Α. They paid for interim retirements, but as 21 far as I am aware, no terminal retirements, no 2.2 dismantling costs. And those costs were recorded in 23 an O&M expense account, and they will be recovered 24 from customers under the PPA as an O&M payment. 25 And going back to the single-issue 0.

1 rate-making problem, there may be other costs that have increased since the last base case, which is now 2 3 a couple decades, that have changed, wouldn't you 4 expect that? 5 MR. DARR: Objection. Couple reasons, 6 number one, it assumes something in evidence that 7 isn't in evidence, that is, when was the last rate case, which this witness has already indicated at 8 9 least three times he doesn't know; second, he's 10 already denied that the single-issue ratemaking is an 11 issue here. So, with that, I object to the question. 12 MR. NOURSE: I'm entitled to contest his assertion that this is not ratemaking, your Honor. 13 14 And, you know, I think we all know it's been decades 15 since there was a rate base that involved true 16 generation. 17 MR. DARR: We may all know that, but this 18 witness does not, your Honor. 19 EXAMINER PARROT: Mr. Nourse, can you 20 rephrase, please. 21 MR. NOURSE: Okay. 2.2 Ο. (By Mr. Nourse) Mr. Kollen, assuming 23 there hasn't been a base rate case since the 24 early-'90s that has incorporated generation plant, 25 would you agree that over the course of two-plus

1 decades that there are likely some costs that have 2 occurred and are not reflected in the base rates that 3 were set way back when?

A. Well, that maybe requires more of a
philosophical answer rather than "yes" or "no"
because the ratemaking construct is such that you
have a defined test year to determine what the costs
are, and then you set the revenue requirement and
establish rates to recover those costs.

Well, of course, over time your load changes, it grows, revenues grow, some costs go down, other costs go up. But to the extent that the revenues cover those costs, nobody -- no party comes in for a rate reduction and the company doesn't seek a rate increase. That's why I totally disagree with your concept of a single-issue adjustment.

Q. Well, I think we've established that disagreement. But do you know whether these costs were excluded from the SEET test in 2009 up through 20 2014?

A. Yeah. You're talking about the
generation-related costs, 2009 through 2014?
Q. Yeah. I'm talking about the retirement
costs that we're talking about here for the last five
years of the SEET test. You are familiar with the

1 SEET test, correct? 2 Α. Yes. 3 And so I'm asking you whether these costs Ο. were reflected in the ROEs that were used for 4 AEP Ohio's SEET tests in the last five years. 5 And by "these costs" you mean what? 6 Α. 7 The retirement costs that's the subject Ο. 8 of your first adjustment we're discussing. 9 Α. Well, it is true that the accumulated 10 depreciation was less than it should have been, you 11 know, because of this taking the income in 2003; but, 12 on the other hand, the depreciation expense was less, 13 so how those two balanced out, I'm not sure. They go 14 in opposite directions, and they may have netted out 15 to zero or some small dollar amount. I just simply 16 don't know. 17 Ο. So the earnings subject to the SEET test 18 could have been higher than what they would have been 19 if your approach was taken; is that what you're 20 saying? 21 They could have been different, higher or Α. 2.2 lower. I just don't know. 23 Okay. Your next adjustment is the ARO, Ο. 24 asset retirement obligation, starting in the middle 25 of page 14, correct?

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1	A. That's correct.
2	Q. Okay. And you mention there in line 17
3	that your recollection is that the company correctly
4	excluded the AROs from the calculation of capacity
5	costs in the 10-2929 case, right?
6	A. It's more than my recollection. I went
7	back to the filing schedules and they specifically
8	say "excluding ARO."
9	Q. Great. So since you reviewed that, do
10	you know if the liability was also removed?
11	A. It should have been. I believe it was.
12	Q. Did you remove it here in your
13	adjustment, the liability?
14	A. We asked for a disaggregation of that
15	and, to my recollection, did not receive it.
16	Q. You agree, since you're making these
17	conceptual adjustments, that the ARO liability should
18	be removed if you're going to remove the ARO asset
19	for this rate-base analysis?
20	A. I do.
21	Q. All right. You have sticking with
22	this ARO adjustment and recommendation, you basically
23	recommend a proration that you characterize, I think,
24	as more of a rental payment; is that fair?
25	A. Let's see. You're looking at page 15.

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1	Q. Page 15 goes into this analogy, I guess,
2	of ownership versus rental, and then page 16 is your
3	proration recommendation.
4	A. Right. I think my question was just
5	simply to clarify where you were right now because
6	you prefaced the question with a reference to ARO,
7	but this is really the retirement dismantling costs
8	and other miscellaneous payment.
9	Q. I apologize.
10	A. I was just trying to get that clarified.
11	Q. Okay. Good point. So in the first Q and
12	A on page 15, you shift into retirement dismantling
13	costs and the miscellaneous other payment costs.
14	A. That's correct.
15	Q. So that's a separate adjustment?
16	A. It is, yes.
17	Q. And in that adjustment is where you
18	distinguish between the ownership versus rental
19	concept and then make the proration recommendation?
20	A. Correct.
21	Q. Okay. So what I want to ask you about
22	this concept, the rental versus ownership, isn't this
23	treatment consistent with normal ratemaking to
24	include these costs versus prorating?
25	A. I'm not sure I follow your question,

3399 "these costs" or what is consistent with traditional 1 2 ratemaking. 3 Ο. Well --4 Α. I just don't understand the question. 5 I'm sorrv. Under traditional ratemaking we have a 6 Ο. 7 generation unit. These costs, these dismantling 8 costs, retirement costs, would be recoverable in 9 rates, correct? 10 Α. That's true, but they would be recovered 11 over the life of the unit, which was true in the past 12 when the units were regulated, when the generation 13 function was regulated. 14 The disconnect here in the company's 15 proposal is that the costs are all packed into the 16 final five years of the PPA, the final five years of 17 the lives of each of the generating units subject to 18 the PPA and in their entirety. That's the problem. 19 It's not a pro-rata share based upon the number of 20 years that the assets are used. 21 Okay. But your recommendation for the Q. 2.2 pro-rata-share approach is premised on -- essentially 23 it's premised on your other recommendation that this 24 be a limited term, not a life-of-the-unit contract, 25 correct?

3400 1 Well, that's certainly one factor, but Α. 2 it's not the only factor because, let's say, for 3 example, that it was a life of the unit, and that life of the unit was 20 years, not 15 years. 4 5 Well, still the principle remains the 6 same, 20 years divided by the service life of the 7 asset -- of the generating unit, not a hundred 8 percent of the retirement costs. So if that 9 generating unit had a 60-year service life, the PPA 10 extends 20 years, then you should only pay one-third 11 of the retirement costs. 12 Ο. Well, okay. So in that example you're 13 saying that the first 40 years don't count? 14 Α. Well, they counts in terms of the 15 accumulated depreciation, the prior issue that we 16 discussed, and they count in terms of the 17 responsibility. To the point where the PPA starts of 18 the -- of Ohio Power Company and its customers under 19 the PPA rider to the point where the PPA ends for 20 that particular unit, it should be prorated. 21 Does that incorporate the prior time when Q. 2.2 plants were in service and dedicated to Ohio retail 23 customers? 24 It would not, because during the period Α. 25 of time when the generation function was regulated,

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1	the customers previously paid for the interim
2	retirements and the terminal retirements.
3	Then there was some period of time when
4	the generation effectively was deregulated. This,
5	from a ratemaking perspective, will reregulate it, in
6	a sense, but everything that went before, prior to
7	the initiation of the PPA in this case, is not the
8	responsibility of Ohio Power Company during the term
9	of the PPA.
10	Q. I think I understand your answer.
11	Your next adjustment is the plant held
12	for future use, starting at the bottom of page 16,
13	correct?
14	A. Correct.
15	Q. When those purchases are made by the
16	company for plant held for future use, that's usually
17	done, or really should be done, when it's going to be
18	cost effective and, you know, save money, the
19	likelihood of saving money rather than trying to buy
20	an adjacent property later on the day you need it. I
21	mean let me restate this, Mr. Kollen.
22	Doesn't plant held for future use provide
23	operational flexibility in the likelihood of cost
24	savings in order to be prudent when those purchases
25	are made?

3402 1 It's possible that's true; however, the Α. 2 plant held for future use typically is a new plant site or a site for a transformation -- transformer or 3 a condensation series station or something of that 4 5 nature. I don't think that the company is going to 6 have any plant held for future use with respect to 7 these existing power plants. But, nevertheless, the PPA has that 8 9 terminology included in it. Dr. Pearce's workpapers, 10 to the extent that I could tell, had no dollars 11 associated with it, but what I did was simply flag it 12 here. But it's true that, presumably, the concept underlying the acquisition of plant prior to the need 13 14 for it is that it's economical to do so. 15 And if the Commission were to review for Ο. 16 prudence such purchases, would that alleviate your 17 concern? 18 I don't think so, because typically the Α. 19 requirement for rate-base recovery of a plant cost is 20 that it is used and useful. And a plant held for 21 future use, by definition, is not used and useful, even if it may have been a cost prudently incurred. 2.2 23 Okay. Moving on to your next 0. 24 recommendation for construction work in progress, on 25 page 17 there you have a couple Q and As concerning

3403 CWIP adjustment, right? 1 2 Α. Yes. 3 Now, you agree that the PPA is a Ο. 4 wholesale purchased power agreement subject to FERC's jurisdiction? 5 The PPA contract itself is. The PPA 6 Α. 7 rider is not subject to the FERC jurisdiction. It's exclusively PUCO jurisdiction. 8 9 I asked you about the wholesale power Q. So you agree that's a FERC jurisdictional 10 contract. 11 contract? 12 Α. I said yes. 13 Ο. So, therefore, a lead-lag study is not 14 appropriate, right? 15 Α. That's correct. 16 And are you familiar with the FERC 1 Ο. 17 one-agent method? 18 I am. But, remember, this is a cost that Α. 19 will be incurred by Ohio Power Company and recovered 20 in -- essentially through the PPA rider, which is a 21 PUCO retail rate, and there is no reason why this 2.2 Commission should cede a revenue requirement 23 calculation in a PPA retail rider based upon a, you 24 know, a methodology that it does not recognize. 25 Do you agree that GR would accrue Ο.

3404 1 financing costs during construction in these power 2 plants? 3 Α. If there are capital expenditures that 4 are not just overnight purchases, for example, you might buy a valve or something like that, that's an 5 overnight purchase. 6 7 Q. Right. If you have an extended construction 8 Α. 9 period, there would be some form of financing costs, 10 probably short-term, low-cost financing. 11 So would it be fair for the GR to book Ο. 12 AFUDC in this circumstance? I think so, or some form of it. It's an 13 Α. 14 unregulated entity, so it would have to capitalize 15 interest and it doesn't have the opportunity for 16 AFUDC, but it could capitalize interest equivalent to 17 its financing costs. 18 Okay. Then, Mr. Kollen, your, I believe, Ο. 19 hopefully last recommendation was on cash working 20 capital starting at the bottom of page 17. Do you 21 see that? 2.2 Α. T do. 23 Actually, I don't have any questions 0. 24 about that. 25 Well, you already did, actually. Α.

3405 Actually, I wanted to go through each 1 Ο. 2 one, but I want to skip that one. 3 Α. You did ask about the one-agent 4 methodology. 5 Ο. Yeah, I'm sorry. I've drawn too many notes in my copy here. 6 7 Okay. Then you have on page 18, the bottom half, you have a prepaid pension asset 8 9 adjustment. 10 Α. T do. 11 Ο. This discussion relates to the AEP-owned 12 units, correct? 13 That's correct, where there are Α. 14 co-owners. 15 Okay. And so would this go the other way 0. 16 for Zimmer and Stuart? 17 Α. No. 18 Ο. Why not? 19 Α. Well, because, to my knowledge, the other 20 companies, the other co-owners that operate the 21 plants Zimmer and Stuart, do not charge AEP those 2.2 amounts. 23 So it's just a financial windfall for Ο. 24 customers that pay for those costs, for the PPA 25 costs?

3406 I don't think I would characterize it 1 Α. 2 I think it's a reflection of the actual that wav. 3 costs that Ohio Power would incur for the prepaid pension assets that are on the books of the 4 co-owners, not on the books of AEP Generation. 5 6 Okay. And then let me go back to the Ο. 7 recommendation we discussed earlier about the -- and 8 so for your recommendation about the retirement 9 dismantling costs and your proration recommendation 10 with adjustment to rate base, I want to go back to 11 that. I have a question I just came up with. 12 Α. Those are two issues, if I could clarify. You can tell me if your answer differs 13 Ο. 14 between the two. 15 Α. Okav. 16 Ο. Since your only recommendation, since 17 your -- excuse me -- let me start over. I've got to 18 read this writing. 19 Since you are only recommending that the 20 PPA include a percentage of the future retirement 21 costs, wouldn't it be inappropriate to reduce the 2.2 rate base for past expense retirement costs since 23 under your proposal the company would be responsible 24 for a share of the retirement costs in proportion to 25 those past years?

3407 1 Α. I understand that. 2 Q. Okay. 3 And the answer is there's no double Α. 4 counting. Essentially, regulated customers pay for the retirement costs up until the assets were 5 deregulated and, I believe, continuing on beyond 6 7 that. But let's -- you know, for the sake of argument, I just left it at through 2002 prior to the 8 9 adoption of Statement 143. 10 After that, the responsibility for those 11 retirement costs was with Ohio Power Company, and 12 then once the assets were transferred to Generation Resources, it became the responsibility of Generation 13 14 Resources. 15 So all of the years that have already 16 gone past should already be properly accounted for. 17 There should properly be assignment of 18 responsibilities of those costs already, including 19 through regulated customers, and by increasing the 20 depreciation, it recognizes the fact that regulated 21 customers contributed to those costs. 2.2 Q. Okay. Your position assumes that the 23 costs have already been recovered in the past, right? 24 From regulated customers, that's correct, Α. 25 in part, and to the extent that AEPGR, Ohio Power

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Company, and Columbus Southern, for that matter, and 1 2 subsequently AEP Generation Resources were not 3 charging those costs, nevertheless, by virtue of 4 their usage of those units during that time as deregulated assets, that's their share during those 5 6 years. We should only pick up under the PPA a 7 pro-rata share of those costs based upon our usage. 8 0. And that gap, I guess, that you talk 9 about in that time, the deregulated assets, can you tell me exactly what period of time you're referring 10 11 to? 12 Α. Well, it would be from 2001 through --13 well, through the last day prior to the initiation of 14 the PPAs if, in fact, the Commission approves them 15 and -- approves it and it is implemented. 16 And that's all you're recommending Ο. exclusion of? 17 18 Α. I'm recommending that the accumulated 19 depreciation be restored through 2002 because that's 20 what retail customers paid for, and then I'm 21 recommending that Ohio Power, Columbus Southern 2.2 Power, and AEP Generation Resources be allocated the 23 next number of years, which would be from 2003 24 through, let's say, 2015, and then if the PPA is 25 approved for the next 15 years, assuming all of the

3409 units operate for the 15 years, then Ohio Power would 1 2 pay 15 divided by whatever the number of years' 3 service life of each of the units subject to what the 4 affiliate PPA had. MR. NOURSE: Got it. Thanks, Mr. Kollen. 5 That's all the questions I have, your 6 7 Honor. EXAMINER PARROT: Mr. Beeler? 8 9 MR. BEELER: No questions, your Honor, 10 thank you. 11 EXAMINER PARROT: Redirect? 12 MR. KURTZ: May we have a couple minutes? 13 EXAMINER PARROT: You may. 14 (Recess taken.) 15 EXAMINER PARROT: Go ahead, Mr. Kurtz. 16 MR. KURTZ: Thank you, your Honor. 17 18 REDIRECT EXAMINATION By Mr. Kurtz: 19 20 Mr. Kollen, do you recall questions from Ο. 21 counsel for AEP regarding the effect of accumulated depreciation on the rate base? 2.2 23 Α. I do. 24 Explain the mechanics of how that works Q. 25 and why that's an important calculation.

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A. Okay. As you go through time, the cost
of an asset is depreciated. That means it's
effectively used up over its lifetime, and then the
depreciation expense is accumulated in accumulated
depreciation so that the net book value is the
original cost of all of the plant minus the
accumulated depreciation. If you've done it right,

9 And the accumulated depreciation marches 10 Regardless of whether the asset is regulated or on. 11 deregulated, it's going to continue on. The only 12 difference is, in the case that we have here, is the legal -- the asset retirement obligation, the legal 13 14 obligation for asbestos and ash pond closure, because 15 you've got environmental requirements versus the 16 nonlegal requirements.

at the end of the life of the plant, the net is zero.

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17 Ο. And so by understating accumulated 18 depreciation, it's your opinion that the rate base or 19 the net book cost, which is the same as rate base, is 20 overstated.

21 It is, because accumulated depreciation Α. 2.2 is a subtraction from rate base because that's the 23 amount of money that has either been recovered from 24 customers or already depreciated on that plant, and 25 then if you take away a part of it, a part that

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customers have paid while the asset was regulated, and the AEP companies, Ohio Power Company and Columbus Southern, took that to income, so they increased income over a quarter of a billion dollars, \$260 million. Those were funds that were contributed by customers. They're now asking customers to pay for that cost all over again a second time.

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8 Q. Does the timing of the last rate case in 9 the early-1990s have any bearing on rate base 10 proposed by the company or rate base you're 11 proposing?

12 Α. It doesn't. With the -- you know, it 13 depends on how you address or define this non-ARO 14 issue, the accumulated depreciation that was taken by 15 Ohio Power and Columbus Southern to income. But 16 aside from that, it doesn't make any difference 17 because that depreciation is going to continue to 18 accumulate year after year after year after year, and 19 it is what it is on the books of AEP Generation 20 Resources throughout the test years under the PPA, 21 subject to the adjustment that I propose.

Q. Just to be clear, does your proposal to add back or make accumulated depreciation the appropriate number, in your opinion, prevent consumers from being charged the same cost twice?

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3412 It would act to do that, because what it 1 Α. 2 would do is that when depreciation rates are 3 redetermined, they're always based upon the net plant 4 at the time the depreciation study is done; in other words, what amount of net plant, meaning gross plant 5 minus accumulated depreciation, still needs to be 6 7 recovered over the remaining life of the plant. 8 If accumulated depreciation is too 9 little, then the net plant to be recovered is too 10 high, depreciation expense necessarily over the rest 11 of the life of the plant is too high. And so what 12 we're attempting to do is make sure that we don't pay 13 through the depreciation expense or through the 14 rate-base amounts that we've already paid or that 15 should be -- should have been paid by Ohio Power 16 Company, Columbus Southern Power Company, and AEP 17 Generation Resources during the deregulation time 18 period.

19 Q. You were asked if this adjustment to 20 accumulated depreciation was made with respect to the 21 significantly excessive earnings test cases. Do you 22 recall that?

23 A. Yes.

Q. And I think you talked about it was not,but had it been, it would cut both ways?

3413 1 Α. That's correct. 2 What does that mean? Q. 3 Well, what that means is that if the Α. 4 depreciation expense was too low because it didn't include an accrual for the terminal retirements, then 5 6 that would reduce the revenue requirement under the 7 SEET test or increase earnings. On the other hand, 8 the rate base was too high, so that would reduce 9 earnings under the SEET test. 10 So you have the depreciation expense too 11 low increasing earnings, the rate base too high 12 reducing earnings; the net of those two, I don't 13 know. 14 One last question on this dismantling Q. 15 Is there a number in the record as to how much cost. 16 it would cost to dismantle these plants? 17 Α. No, there isn't. Under the proposed PPA 18 it would be the estimated retirement cost, and the 19 estimate would be provided by AEP Generation 20 There would be no true-up, and it could Resources. 21 range, I suppose, from doing nothing, basically, to a 2.2 complete remediation of the plant site into what is 23 known as a greenfield. 24 So it's really an open-ended exposure to 25 not only in terms of the company's proposal to

1 collect all of the costs of the retirement over five 2 years, not prorated, and we don't know what the 3 retirement -- the scope of the retirement activities 4 will be.

Q. So if the PPA turned out to be for a term of six years, beginning in year two, customers would begin paying for 100 percent of the unknown retirement costs of the plants?

9 Α. Yes. That's correct. It's unknown, but 10 nevertheless AEP Generation Resources will make a 11 projection, for example, let's just say a hundred 12 million dollars, and then under the PPA, under the 13 company's version of the PPA, \$20 million would be 14 charged to Ohio Power Company each of five years, 15 years two through six, and AEP Generation Resources 16 would be holding a hundred million dollars but -- and 17 there would never be any true-up to that amount of 18 money, but AEP Generation Resources could go 10, 15, 19 20, 50 years into the future, put a fence around the 20 power plant site, you know, monitor it 21 electronically, and never remediate the site. So 2.2 that's really kind of an open-owned structure. 23 And the reason it's called nonlegal Ο. 24 retirement is because there's no obligation to tear 25 down a power plant?

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3415 That's right, there's no legal obligation 1 Α. 2 to dismantle. 3 In your experience, what do utilities do Ο. 4 with power plants that are retired? The preponderance of what I'll call 5 Α. 6 abandoned plants are left in place. Some utilities 7 have been, and particularly if it's a low-cost option, for example, in some of your combustion 8 turbine units where you don't have coal piles and, 9 10 you know, you don't have the problems of nuclear 11 decommissioning, but if you have a gas-fired plant 12 it's relatively inexpensive to pull the equipment 13 out, bulldoze whatever structures you have, and 14 remediate the site in that manner. 15 But there's no legal requirement to do Ο. 16 so? 17 Α. No legal requirement to do so. 18 Ο. Okay. 19 MR. KURTZ: Thank you, your Honor. No 20 more questions. 21 EXAMINER PARROT: Mr. Mendoza? 2.2 MR. MENDOZA: No questions. 23 EXAMINER PARROT: Ms. Bojko? 24 MS. BOJKO: No, thank you, your Honor. 25 EXAMINER PARROT: Ms. Bair?

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1	MS. BAIR: No questions.
2	EXAMINER PARROT: Mr. Darr?
3	MR. DARR: Very briefly, your Honor.
4	
5	RECROSS-EXAMINATION
6	By Mr. Darr:
7	Q. Mr. Kollen, in response to questions from
8	Mr. Kurtz, you referred to rate base and test year
9	under the PPA. Do you recall those comments?
10	A. Yes.
11	Q. And I would assume that for purposes of
12	rate base, if we were looking at a traditional case,
13	we would also need to determine a date certain,
14	correct?
15	A. Yes, that's correct. And there's a
16	variety of dates under the company's proposed draft
17	PPA that could be refined, but I'll let you ask
18	further questions.
19	Q. Well, and that really gets to my point.
20	Under the proposal which we've referred to as the
21	proposed PPA, can you identify for me a test year, a
22	date certain, or something similar to that that would
23	conform to either a statutory rule or a
24	administrative rule that we would all be familiar
25	with?

1 I have not made that inquiry, but Α. 2 essentially what the company proposes to do is 3 project the costs for a test year using the year-end 4 rate-base amounts and projected operating expenses for whatever the current calendar year is, and then 5 6 that would be what would be charged to Ohio Power 7 Company. When I said "company," I meant AEP Generation Resources. 8 9 And going back to my question, which is, Q. 10 did you attempt to see whether or not that would 11 conform with anything that you were familiar with in 12 terms of Ohio law, I know you've testified here 13 multiple times, whether that conformed with something 14 you were familiar with under federal rules and 15 regulations? Did you make that analysis? 16 I did not; other than just to note that Α. 17 they used historical rate-base numbers subject to 18 update for projected changes during the projected 19 test year, but it's a projected test year concept 20 that the company -- that AEP Generation Resources has 21 proposed. 2.2 MR. DARR: That's all the questions I 23 have. Thank you. 24 EXAMINER PARROT: Mr. Nourse? 25 Thank you, your Honor. MR. NOURSE:

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2	RECROSS-EXAMINATION
3	By Mr. Nourse:
4	Q. Mr. Kollen, I'm not going to rehash our
5	areas of disagreement that we covered on redirect,
6	but I do want to ask you to clarify something for me.
7	The 260 million that you referenced
8	during your redirect examination, that's the same
9	260 million that you reference on page 12 of your
10	testimony, and you cite to a FERC Form 1 in footnote
11	7 for the support for that?
12	A. That's correct.
13	Q. And can you tell me, if you know, was
14	that amount related just to the PPA units?
15	A. No. And in my quantifications on the
16	table that I show on page 4 of my testimony, and I
17	believe we provided these workpapers to AEP, but they
18	were competitively sensitive because they were based
19	upon Dr. Pearce's workpapers, what we did was we
20	scaled that \$261 million down to the power plants
21	that were the subject of the affiliate PPA. In other
22	words, the 261 million is all of the generation units
23	that Ohio Power and Columbus Southern Power
24	transferred to AEP Generation Resources, but we
25	scaled that down to get the quantifications on page

3419 4. 1 2 Okay. So turning to page 14, the Q. sentence beginning at line 4 where you quantify the 3 4 cost reductions resulting from your recommendation, do you see those figures, 10 million, 7.2 million, 5 and 2.8 million? 6 7 I'm sorry. You're on page 4? Α. 8 Ο. Page 14. 9 Α. Oh, 14. Okay. I'm sorry. 10 Line 4. Q. 11 Α. Okay. Okay. 12 Q. This is your adjustment for the 13 accumulated depreciation issue we've been discussing? 14 Α. Correct. 15 And so those numbers would represent what Ο. 16 you called the scaled-down version of the 260 million? 17 18 Α. That's correct, yes. 19 Q. And can you tell us how you scaled the 20 262 down? 21 Α. Yes. We used gross plant-in-service as a 2.2 scaler. 23 MR. NOURSE: Thank you, Mr. Kollen. 24 EXAMINER PARROT: Mr. Beeler? 25 MR. BEELER: No questions. Thank you.

3420 MR. KURTZ: Your Honor, we move the 1 2 admission of OEG Exhibit 3. 3 EXAMINER PARROT: Are there any 4 objections? 5 MR. NOURSE: No objections. 6 EXAMINER PARROT: Hearing none, OEG 7 Exhibit No. 3 is admitted. (EXHIBIT ADMITTED INTO EVIDENCE.) 8 9 EXAMINER PARROT: Thank you, Mr. Kollen. 10 THE WITNESS: You're welcome. 11 EXAMINER SEE: Mr. Stinson. 12 MR. STINSON: Yes, your Honor, we call Dr. Sioshansi. 13 14 If I may approach, your Honor. 15 EXAMINER SEE: Yes. 16 Please raise your right hand. 17 (Witness sworn.) 18 EXAMINER SEE: Thank you. Have a seat. 19 (EXHIBIT MARKED FOR IDENTIFICATION.) 20 RAMTEEN SIOSHANSI, PH.D. 21 being first duly sworn, as prescribed by law, was 2.2 examined and testified as follows: 23 DIRECT EXAMINATION 24 By Mr. Stinson: 25 Would you please state your full name and Ο.

3421 1 business address for the record? 2 Ramteen Sioshansi, 60 East Spring Street, Α. 3 Columbus, Ohio 43215. 4 Q. I've placed before you what's been marked as OCC Exhibit No. 12. Can you identify that for me? 5 Yes. That is a copy of my direct 6 Α. 7 testimony. Do you have any additions or corrections 8 Ο. 9 or deletions to that testimony today? 10 I have two corrections. On page Α. Yes. 11 15, line 3 where it currently reads "retirement of 12 preretirement," the "of" should be changed to "or." 13 Ο. Any other corrections? 14 One other correction, on page 37, line 17 Α. 15 where it currently says "SB 33," that should be 16 changed to "SB 3." 17 Ο. If I were to ask you the same questions today, would your answers as corrected be the same? 18 19 Α. Yes, they would. 20 Ο. Are those answers true and accurate to 21 the best of your knowledge? 2.2 Α. Yes, they are. 23 MR. STINSON: At this point I move the 24 admission of OCC Exhibit 12 subject to cross, and 25 tender Dr. Sioshansi for cross-examination.

3422 EXAMINER SEE: Mr. Mendoza? 1 2 MR. MENDOZA: No questions, your Honor. 3 EXAMINER SEE: Ms. Bojko? 4 MS. BOJKO: No questions, thank you. 5 EXAMINER SEE: Mr. Darr? 6 MR. DARR: No questions. 7 EXAMINER SEE: Mr. McKenzie? MR. McKENZIE: Yes, your Honor. 8 9 EXAMINER SEE: I'm sorry. Hold on. 10 MR. K. BOEHM: I switched with Mr. Kurtz, 11 and OEG has no questions. 12 EXAMINER SEE: That's not permitted, but 13 thank you. 14 (Laughter.) 15 EXAMINER SEE: Now, Mr. McKenzie. MR. McKENZIE: Thank you, your Honor. 16 17 _ _ _ 18 CROSS-EXAMINATION 19 By Mr. McKenzie: 20 Q. Good afternoon, Dr. Sioshansi. My name is Matthew McKenzie. We've met before. 21 2.2 Α. Yes. 23 Let's go to your testimony, page 1, line Ο. 24 10, please. 25 Α. Yes.

3423 Here you say, "I have 17 years of 1 Q. 2 academic and consulting experience within the 3 electric power industry." Did I read that correctly? 4 Α. You did. So your first experience was in 1998; is 5 Ο. that correct? 6 7 That is correct, yes. Α. And you were a sophomore in college in 8 Ο. 9 1998, correct? 10 I was, that is correct. Α. 11 Ο. And your work experience in 1998 was a 12 summer internship, correct? It was an internship with Pacific Gas and 13 Α. 14 Electric Company, which is a gas and electric utility 15 in Northern California. 16 It was over the summer? Ο. 17 Α. It was over the summer. It may have, I don't recall, stretched into the preceding spring or 18 19 proceeding fall semester. 20 And when you say you have 17 years of 0. 21 academic experience, you're counting your time in college, correct? 2.2 23 Yes. I'm counting training that I did as Α. 24 an undergraduate and as a graduate student, as well 25 as research that I did that pertained to my current

3424 field of work, which is predominantly in the electric 1 2 power industry. 3 Okay. It's fair to say throughout your Ο. 4 testimony that you say that the PPA proposal is an improper subsidy; is that correct? 5 Well, there are points in my testimony 6 Α. 7 where I raise issues related to subsidization from the PPA and the rider, and there are points where I 8 9 say that having such a subsidy is detrimental or 10 could be detrimental to the intended design of the 11 PJM market. 12 Ο. So you don't think the PPA proposal is an improper subsidy? 13 14 No, that's not what I said. Α. 15 So you do think it's an improper subsidy? Ο. 16 I believe that --Α. MR. STINSON: Objection, asked and 17 18 answered. 19 EXAMINER SEE: Overruled. 20 You can answer the question. 21 As I said, I believe that there are --Α. 2.2 the way that it is designed, that the PPA and the 23 rider results in full transfer of the cost of the PPA 24 units to AEP Ohio's customers and also subsidizes the 25 cost risks of separating the PPA units. So I do,

3425 based on those features, characterize it as 1 2 subsidizing the operation of the plants. 3 Okay. Now, you would agree that Ο. 4 subsidies are not necessarily bad things, correct? Α. 5 Subsidies are not necessarily bad things, 6 I would agree with that. 7 And subsidies could be beneficial for new Ο. 8 technologies, like solar, correct? 9 Α. There are instances in which subsidies can be beneficial. 10 11 Ο. And there are instances in which 12 subsidies could be beneficial to address environmental concerns such as concerns about carbon, 13 14 correct? 15 Α. Subsidies are one mechanism that could be 16 used to address environmental concerns, yes. And subsidies could be beneficial for 17 Ο. 18 economic development, for example, encouraging a 19 manufacturer to locate in a particular location? 20 Α. Yes. A subsidy could be used for the 21 type of goal that you stated. 2.2 Ο. Now, you don't know whether solar 23 resources are subsidized by the state of Ohio, 24 correct? 25 I don't know specifically what types of Α.

3426 policy mechanisms are in place with respect to solar. 1 2 And you don't know whether wind resources Ο. 3 are subsidized by the state of Ohio? 4 Α. Again, I don't know what specific policy mechanisms are in place for wind. 5 And, generally, you don't know whether 6 Q. 7 demand response resources receive subsidies, correct? I don't know specifically what policy 8 Α. 9 mechanisms are in place for demand response. 10 Okay. Let's go to page 3 of your Ο. 11 testimony, lines 12 through 14. You say here that 12 you were, quote, asked to evaluate the effect of the proposed PPA and PPA rider on the efficiency of the 13 14 PJM-operated markets. Did I read that correctly? 15 Α. You did, yes. 16 Could you go to page 9, please, of your Ο. 17 testimony. Starting on line 5 here, here you purport 18 to "explain how the PJM-operated wholesale markets 19 are intended to ensure short-run efficiency of the 20 electric power system for the benefit of customers." 21 Did I read that correctly? 2.2 Α. You did read that correctly. 23 Let's go to page 10, line 1. Here you Ο. 24 "explain how the PJM-operated wholesale markets are 25 intended to ensure long-run efficiency," correct?

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1	A. In this question I do, yes.
2	Q. Okay. Now, let's go to page 11 starting
3	on line 17. Here you say, "The proposed PPA and PPA
4	Rider threaten to undermine the short-run efficiency
5	benefits of the PJM-operated wholesale markets." Did
6	I read that correctly?
7	A. You did, yes.
8	Q. All right. Last one. Go to page 14,
9	please, line 16. You say, "The proposed PPA and PPA
10	Rider threaten to undermine the long-run efficiency
11	benefits of the PJM-operated wholesale markets in two
12	ways." Did I read that correctly?
13	A. Yes, you did.
14	Q. Now, do you believe that you have
15	sufficient expertise and knowledge of the PJM markets
16	to draw these conclusions?
17	A. My expertise and knowledge pertains to
18	the principles of how to design wholesale markets
19	such as the one operated by PJM.
20	Q. So yes?
21	A. And I would say
22	Q. Sorry
23	A based on that knowledge and that
24	expertise, I would say that I would characterize
25	myself as being able to assess potential impacts of

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the PPA and PPA rider on the short- and long-run 1 efficiency of those markets. 2 3 You're familiar with PJM's BRA, or base Ο. residual auction, correct? 4 Α. 5 I have heard the term, yes. 6 Ο. But you don't know what PJM's incremental 7 capacity auctions are, correct? I've heard the term "incremental capacity 8 Α. 9 auction." My broad understanding is that they are 10 additional auctions that are run after the BRA. My 11 understanding is if additional capacity is needed 12 between when the BRA was run and when the delivery 13 period begins. 14 Well, let's put it this way, you don't Q. 15 know how the incremental auctions differ from the 16 BRA; is that correct? 17 Α. I don't know all the specific details of 18 the BRA versus the incremental auction. I do know 19 that the incremental auctions are operated after the 20 BRA operates. So at a minimum, when the incremental 21 auction is operated, given that it's after the BRA, 2.2 there would be more information available since the 23 incremental auction is operated closer to the 24 delivery period. 25 So the fact that the incremental auctions Ο.

3429 are held after the BRA, that's something you learned 1 2 since your deposition, correct? 3 Α. It's something that I refreshed myself on 4 after -- since the deposition. Well, you didn't know at the deposition; 5 Ο. is that correct? 6 7 I didn't know all the specifics of the Α. incremental auction versus the base residual auction. 8 9 You were deposed on October 9th; is Q. 10 that correct? 11 Α. I believe that was the date. 12 Q. And so ten days ago, isn't it fair to say 13 that you didn't know how often incremental auctions 14 are held? 15 MR. STINSON: Objection, your Honor. 16 That's an improper use of impeachment for the 17 deposition. 18 EXAMINER SEE: I'll allow it. You can 19 answer the question. 20 THE WITNESS: Can you reread the 21 question? 2.2 (Record read.) 23 That would be fair to say, yes. Α. 24 Okay. And you don't know whether a Q. 25 bidder who clears the BRA can cover its capacity

3430 obligations by purchasing capacity in the incremental 1 auction, correct? 2 3 Α. I don't know that for certain, no. 4 Q. You don't know how the demand curve for 5 the capacity auction is determined, correct? I don't know the details of how the 6 Α. 7 demand curve is derived. 8 Ο. And you don't know what the, quote, 9 variable resource requirement, end quote, is, 10 correct? 11 Α. I've heard the term, but I don't know the 12 details of it. 13 You don't know who the buyers in the PJM Ο. 14 capacity auctions are, correct? 15 I don't know definitively who the buyers Α. 16 are. 17 Q. And you don't know whether PJM accounts 18 for demand response resources on the supply side or 19 the demand side of the capacity auctions, correct? 20 Α. No, I don't know that detail. 21 And you don't know whether demand Q. 2.2 response resources have the same performance 23 obligations as traditional generation resources, 24 correct? 25 I don't know the specific performance Α.

3431 1 requirements for demand response resources. 2 And you don't know any of the rules of Ο. 3 the demand response participation in the PJM market, 4 correct? I don't know specific rules regarding 5 Α. 6 demand response... 7 You don't know whether there are any Ο. limits on how a generator can price its bids into the 8 9 PJM market, correct? 10 I don't know the limits on capacity. Α. 11 Ο. And you're not aware of any rules 12 governing bid caps for the PJM capacity auction, 13 correct? 14 Α. I'm not aware of the specific rules, no. 15 You don't know whether a plant can bid Ο. 16 into the PJM capacity market at zero, correct? 17 Α. I believe that they can. 18 Ο. Do you recall you testified in a 19 FirstEnergy hearing down the hallway? 20 Α. Yes, I do. 21 Is it fair to say that when you testified Q. 2.2 in that hearing, you didn't know whether a plant can 23 bid into the PJM capacity market at zero? 24 MR. STINSON: Objection. Your Honor, if 25 counsel has a deposition or a transcript and if he

3432 1 gets an inconsistent statement from the witness, the 2 counsel can present that to the statement to try to 3 impeach him, but, again, this is improper 4 impeachment. MR. McKENZIE: We'll do that. 5 6 EXAMINER SEE: Okav. 7 MR. McKENZIE: I was just trying to move 8 things along. 9 I'm sorry. Keep the small print one. 10 Dr. Sioshansi, I've handed you the Ο. 11 transcript from your testimony in the FirstEnergy 12 hearing. For the record, this is an excerpt of the 13 day in which you testified, but it has your entire 14 testimony. 15 Α. Okay. 16 Could you please turn to page 4451, line Ο. Question: "And you don't know whether a plant 17 5. 18 can bid into the PJM capacity market at zero as a 19 price taker, correct?" 20 Answer: "I don't know definitively one 21 way or the other." 2.2 That was your testimony, correct? 23 Α. That is, and it's consistent with what I 24 told you. 25 So you don't know whether a plant can bid Q.

3433 1 into the PJM capacity market at zero, correct? 2 I believe it can. I don't definitively Α. 3 know. 4 Ο. Okay. How about this, you don't know whether any resources currently actually bid into the 5 6 PJM capacity market at zero, correct? 7 MR. STINSON: Objection. Asked and 8 answered. 9 MR. McKENZIE: It's a different question, 10 your Honor. Previously I asked him whether they can. 11 Now I'm asking him whether they do. 12 EXAMINER SEE: The objection is overruled. 13 14 I don't know specifically as I've never Α. 15 examined bids into the PJM market. 16 Do you know if that information is widely Ο. 17 available on the PJM website? 18 I do not definitively know. I believe Α. 19 that bid data are available on PJM website. 20 Ο. Okay. You don't know whether generators 21 outside PJM can bid into the capacity auctions, 2.2 correct? 23 I don't know specifically, no. Α. 24 And, finally, you don't know how the Q. 25 term, quote, locational deliverability area, or LDA,

3434 fits into the PJM capacity market, correct? 1 2 I've heard the term, and I believe it's Α. 3 locational delivery area. 4 Ο. And you don't know how it fits into the PJM capacity market, correct? 5 I don't know all the specifics of how 6 Α. 7 LDAs play out, no. If PJM fails to procure sufficient 8 Ο. 9 capacity in its capacity auction, you don't know what 10 actions it can take under its tariff, correct? 11 Α. I don't know the specific details of the 12 actions that it can take, no. And, in particular, you do not know 13 Ο. 14 whether under the PJM tariff PJM has the ability to 15 offer a reliability must-run, or RMR, contract, 16 correct? 17 Α. I don't know the specifics of how RMR 18 contracts play into the PJM market. 19 Okay. Let's talk about ancillary Q. 20 services for a second. You reference ancillary 21 services throughout your testimony, correct? 2.2 That is correct. Α. 23 But you don't know all the ancillary Ο. 24 services products that PJM procures through markets, 25 correct?

3435 1 I don't hundred percent definitively know Α. 2 them all. Certainly I don't know them all by name. 3 However, I broadly know what ancillary service 4 products or what types of services PJM would be procuring from resources in the market. 5 Okay. What ancillary services products 6 Ο. 7 does PJM procure outside a market construct? I don't know specifically the ancillary 8 Α. 9 service products that it procures outside the market 10 construct. 11 Let's just take one. How about reactive, Ο. 12 is that procured through the market or outside the 13 market? 14 Α. My understanding is that typically 15 reactive power is not procured within the market 16 construct. 17 Ο. Do you know how PJM does it? 18 Α. I don't definitively know. 19 Q. Okay. Let's talk about the PJM energy 20 markets. You don't know how PJM determines the 21 demand for the realtime energy markets, correct? I don't know the specific steps that it 2.2 Α. 23 goes through to determine the demand, no. 24 You don't know whether PJM energy market Q. 25 offers are made by plant or by unit, correct?

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1	A. No, I don't know that detail.
2	Q. And you don't know whether PJM energy
3	market offers are based on marginal costs or average
4	variable costs, correct?
5	A. I don't know definitively, no.
6	Q. You don't know the specific structure of
7	offers that get submitted to the market on a daily
8	basis, correct?
9	A. I don't know the specific structure of
10	offers that are made per the PJM market rules today.
11	I have worked with PJM market data in the past so I
12	have worked with offer data in the past, and I could
13	go back and look at the offer data that I've worked
14	with in the past to refresh my memory on the full
15	structure of the offers.
16	Q. Okay. But you're aware that there are
17	written rules that govern how entities offer energy
18	into the PJM energy markets, correct?
19	A. My understanding is that there are rules
20	that govern those type of things.
21	Q. You've never read those rules, correct?
22	A. I have not read them exhaustively, no.
23	Q. And, in particular, you don't know the
24	rules that govern above-cost offers at PJM, correct?
25	A. Again, I don't know the specific details

3437 of the rules that govern those, no, types of things. 1 2 3 You are aware that all offers in the PJM Ο. markets are monitored by the PJM market monitor, 4 correct? 5 Yes. I am aware that there's an 6 Α. 7 independent market monitor that evaluates offers into the market. 8 9 But you don't know the specific criteria Q. 10 that the market monitor uses to monitor those offers, 11 correct? 12 Α. No. I don't know the specific criteria 13 that are used, no. 14 And you're also aware that FERC has an Ο. 15 ability to examine market participation, correct? 16 My understanding is that FERC does have Α. 17 that authority. 18 But, again, you're not aware of the 0. 19 written FERC policies that govern bidding behavior, 20 correct? 21 Α. No, I'm not aware of that specific detail. 2.2 23 Okay. Let's go back to your testimony, 0. 24 page 6, please, line 1. You state, "The PPA and PPA 25 Rider directly subsidize the operating and capital

3438 costs of the PPA units. Such a subsidy has no place 1 2 in a competitive wholesale market, such as those 3 operated by PJM," and then it goes on. Did I read 4 that correctly? Α. You did. 5 I'd like to ask about your knowledge of 6 Ο. 7 subsidies in PJM. You don't definitively know whether parts of West Virginia are in PJM, correct? 8 9 Α. I don't definitively know, no. 10 Ο. And you don't know whether there are 11 cost-of-service retail rates for generation in 12 West Virginia, correct? 13 I don't definitively know. Α. 14 Q. And you don't know whether parts of 15 Kentucky are in PJM, correct? 16 MR. STINSON: I'm going to object, your 17 Honor. This is outside the scope of his direct 18 testimony. 19 MR. McKENZIE: Your Honor, as I just 20 read, he's saying that the PPA proposal is 21 inconsistent with the competitive market including 2.2 PJM. PJM necessarily involves the region that PJM 23 encompasses and so his knowledge of other things that 24 look a lot like the PPA proposal is directly 25 relevant.

3439 MR. STINSON: He's talking about 1 2 cost-of-service regulations in surrounding states. 3 MR. McKENZIE: That's right. 4 EXAMINER SEE: And your objection is 5 overruled. 6 You can answer the question. 7 THE WITNESS: Can you reread the question? 8 9 (Record read.) 10 Α. I don't definitively know without having 11 the PJM footprint map in front of me. 12 Ο. And that map is readily available, 13 correct? 14 Α. It is, yes. 15 Okay. You don't know whether there are 0. cost-of-service rates for generation in Kentucky, 16 17 correct? 18 I don't definitively know. Α. 19 Q. You don't know whether parts of Indiana 20 are in PJM, correct? 21 I don't definitively know. Α. 2.2 Ο. And you don't know whether there are 23 cost-of-service rates for generation in Indiana, 24 correct? 25 Α. I don't definitively know.

3440 You don't know whether parts of Michigan 1 Ο. 2 are in PJM, correct? 3 I don't definitively know. Α. 4 Ο. And you don't know whether there are cost-of-service rates for generation in Michigan, 5 correct? 6 7 I don't definitively know. Α. Now, you are aware that parts of Virginia 8 Ο. 9 are in PJM, correct? 10 I believe that there are parts of Α. 11 Virginia that are in PJM, yes. 12 Ο. But you don't know whether there are any 13 vertically integrated utilities operating in 14 Virginia, correct? 15 Α. I don't definitely know one way or the 16 other. And you don't know whether the parts of 17 Q. 18 Virginia in PJM have cost-of-service retail rates for 19 generation, correct? 20 Α. I don't definitively know. You also don't know whether Dominion 21 Ο. 2.2 operates a utility in Virginia, correct? 23 Α. I know that there is a utility that 24 operates under the name Dominion. I don't know what 25 state it operates in.

3441 And you don't know whether Dominion 1 Ο. 2 participates in the PJM markets, correct? 3 I don't definitely know. Α. 4 And you don't know whether Dominion has Ο. 5 cost-based retail rates for generation, correct? 6 Α. I don't definitely know. 7 You don't know whether there are Ο. 8 cooperatives in PJM that own generation assets, 9 correct? 10 Α. I don't definitively know. 11 And you don't know whether cooperatives Ο. 12 recover the costs of their generation through 13 cost-based retail rates, correct? 14 Α. I don't definitely know. 15 And you've never heard of the Eastern Ο. 16 Kentucky Power Cooperative, right? 17 Α. No, I have not. 18 And you don't know whether there are Ο. 19 municipal utilities in PJM, correct? 20 Α. I don't definitively know one way or the 21 other. And you've never heard of American 2.2 Ο. 23 Municipal Power, sometimes called AMP, correct? 24 Α. I have not heard that name, no. 25 Now, you have heard the term "fixed 0.

3442 resource requirement," or FRR, as it relates to PJM, 1 2 correct? 3 I have heard the term, yes. Α. 4 But you don't know how much generation in Q. PJM is owned by FRR entities, correct? 5 No, I don't definitively know how much 6 Α. 7 FRR capacity there is in PJM. And you don't know whether FRR entities 8 Ο. 9 participate in the PJM energy markets, correct? 10 I don't definitively know what -- how the Α. 11 participation of FRR units and cost recovery differs 12 from other units. And you don't know where PJM has 13 0. 14 different bidding rules for regulated generation 15 assets, correct? 16 I don't definitively know that. Α. 17 Q. Okay. You don't know whether AEP Ohio 18 currently has two wind PPAs, correct? 19 Α. I don't know of any specific PPAs that 20 AEP Ohio has. 21 Presumably you also don't know whether Q. AEP Ohio recovers the net costs of any of its PPAs in 2.2 23 retail rates, correct? 24 EXAMINER PARROT: Objection. No 25 foundation. He already said he doesn't know about

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 1
      PPAs.
 2
                  MR. MCKENZIE: I don't know how there
 3
      could be a lack of foundation, asking him if he
 4
      doesn't know something.
 5
                  EXAMINER SEE: The witness can answer the
 6
      question.
 7
                  THE WITNESS: Can you read the question?
 8
                  (Record read.)
 9
             Α.
                  Not knowing definitively about the PPAs,
10
      no, I don't.
11
                 And, in fact, you're not aware of any
             0.
12
      specific PPAs in PJM between a utility and any
13
      generator, correct?
14
                  I'm not aware of any specific ones, no.
             Α.
15
                  Okay. A couple questions about OVEC.
             Ο.
16
      You don't know when AEP Ohio obtained its OVEC
      entitlement, correct?
17
18
                  No, I don't off the top of my head recall
             Α.
19
      when that was.
20
             Ο.
                  Okay. And you don't know whether
21
      AEP Ohio has previously recovered the net cost of its
2.2
      OVEC entitlement in its retail rates?
23
                  MR. STINSON: Could I have that reread,
24
     please?
25
                  EXAMINER SEE: Sure.
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3444 1 (Record read.) 2 I don't know any specifics of historical Α. 3 cost recovery for OVEC. 4 And you don't know whether any of the Q. other OVEC members include the net cost of their OVEC 5 entitlement in retail rates, correct? 6 7 I don't know the specifics of cost Α. recovery for OVEC, no. 8 9 Q. Including for the other OVEC members. 10 Α. Including for other OVEC members. 11 Ο. Let's go to your testimony, page 17, 12 please, line 5. Here you say, "AEP Ohio has a number 13 of affiliates that own generation assets 14 participating in the PJM-operated markets that are 15 not covered by the proposed PPA." Did I read that 16 correctly? You did. 17 Α. 18 Now, you don't know the names of the AEP Ο. 19 affiliates you're referring to here, correct? 20 Α. No, I don't. 21 And you don't know whether those AEP Ο. 2.2 affiliates are regulated or unregulated or both, 23 correct? 24 I don't definitively know. Α. 25 And you don't know the extent to which Q.

3445 these AEP affiliates have cost-based rates, correct? 1 2 I don't know the specifics of their cost Α. 3 recovery structure. 4 And you don't know how these affiliates Ο. bid their generation into the retail markets or 5 whether they even do, correct? 6 7 MR. STINSON: Compound, objection. I'll ask again. You don't know how these 8 Ο. 9 affiliates currently bid their generation into the 10 PJM markets, correct? 11 I don't definitively know. I seem to Α. 12 recall from the testimony in this case one of the 13 utility witnesses, one of the witnesses on behalf of 14 the utility discussing support service, that provided 15 for bidding generation assets into, I can't 16 definitively remember if it was specifically PJM or 17 other markets that generation assets participate in. 18 Okay. Let's go to page 19 of your Ο. 19 testimony, line 16, you say, quote, "By subsidizing 20 these costs and guaranteeing profits to AEPGR, and at 21 the same time fully transferring these costs from 2.2 AEP Ohio to its customers through the PPA rider, the 23 proposal eliminates any incentives to reduce the 24 operating or capital costs of the PPA units." Did I 25 read that correctly?

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1	A. You did.
2	Q. Are you aware that the proposed PPA
3	contains a provision in which AEP Ohio will vote on
4	an operating committee for the PPA units?
5	A. My recollection my recollection, and
6	on page 20 of my testimony beginning at line 18, was
7	that my recollection was that a lot of the
8	decisions involving the PPA units have to be made by
9	mutual agreement between AEP Ohio and AEPGR.
10	Q. Is that on an operating committee or some
11	other basis?
12	A. I don't recall the detail of the
13	actual the structure of the committees that would
14	be making the decisions; however, my recollection is
15	that, again, as I state here, that major decisions
16	would have to be made by mutual decision between the
17	two parties.
18	Q. Are you aware if AEP Service Corp. has
19	any role in making decisions for the PPA units?
20	A. I don't recall specifically.
21	Q. And are you aware if decisions regarding
22	capital costs are any different when it comes to
23	AEP Ohio's role?
24	MR. STINSON: Objection. Please reread
25	the question, please.

3447 1 (Record read.) 2 MR. STINSON: Objection as to form and 3 foundation. 4 MR. McKENZIE: I guess I can rephrase, 5 your Honor. EXAMINER SEE: Yes. 6 7 You say here that AEP "unit retirement Ο. 8 decisions must be made by mutual agreement between 9 AEP Ohio and AEPGR." Did I read that correctly? 10 Α. On lines 18 and 19 of page 20? 11 Ο. Yes. 12 Α. Yes, you read that correctly. 13 Are you aware if capital investments at Ο. 14 the PPA units are different when it comes to how the decisions will be made? 15 16 MR. STINSON: Objection as to form, too, 17 considering there's different types of units and 18 their ownership structure. 19 MR. McKENZIE: If the witness is capable 20 of making that distinction, he can clarify it. 21 THE WITNESS: Can you reread the 2.2 question? 23 EXAMINER SEE: Sure. The objection is 24 overruled. 25 (Record read.)

1 I don't know what you mean by Α. "different." 2 3 Okay. Do you know whether when it comes Ο. 4 to making decisions about capital investments at the PPA plants, those decisions will be made by mutual 5 agreement between AEP Ohio and AEPGR or whether some 6 7 other procedure will apply? I don't definitively 100 percent recall 8 Α. 9 off the top of my head. 10 Okay. Are you aware that AEP Ohio has Ο. 11 proposed that the Commission will conduct annual 12 financial and managerial audits under the PPA rider? 13 My recollection is that Commission staff Α. 14 would have the opportunity to essentially do an 15 annual audit to check that the amount of the costs 16 that are going towards computing the PPA rider is 17 computed correctly. 18 Okay. So my question then is, are you Ο. 19 aware whether as part of that audit the Commission 20 will review the prudence of AEP Ohio's decisions 21 under the PPA contract, including its decisions on 2.2 the operating committee of the PPA plants? 23 Α. I don't recall that detail off the top of 24 my head. 25 Okay. Now, are you aware that when the Q.

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3448

Ohio Power Company Volume XIII

3449 PPA units were built, they were part of the 1 cost-of-service rates of either Ohio Power or 2 3 Columbus Southern Power? 4 MR. STINSON: Again, objection. Beyond 5 the scope of his direct. EXAMINER SEE: I'll allow it. 6 The 7 objection is overruled. I don't know the specific history of the 8 Α. 9 plants to know their historical cost recovery. 10 Ο. Okay. Let me just ask it this way. When 11 you say that the PPA proposal eliminates incentives 12 to reduce the operating or capital costs of the PPA units, how is the prudence review that the company 13 14 has proposed here different, in your view, from the 15 traditional cost-of-service prudence review that was 16 conducted when these plants were built? 17 MR. STINSON: Objection. Dr. Sioshansi said he wasn't certain regarding the prudency review. 18 19 MR. McKENZIE: Your Honor, if he says "I 20 don't know" to this question, I would be fine by 21 that. 2.2 MR. DARR: The question is bad in form, 23 your Honor. It assumes a fact that's not in evidence 24 at this point. 25 EXAMINER SEE: So I take it you're

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1	joining the objection, Mr. Darr.
2	MR. DARR: Yes, ma'am.
3	EXAMINER SEE: I'm going to allow the
4	question, and the witness can give any clarification
5	or context to his answer that he feels necessary.
6	THE WITNESS: Can the question be reread?
7	EXAMINER SEE: Of course.
8	(Record read.)
9	A. So I would answer that by essentially
10	directing you to the response to my response to
11	question 16 in my direct testimony, which is that
12	the my understanding of the proposed PPA is that
13	costs that are incurred at the PPA units are fully
14	borne by AEP Ohio through the terms of the PPA and
15	then those costs through the rider would be
16	transferred to AEP Ohio's customers.
17	So given those two features of the PPA
18	and the PPA rider, there I would say that AEPGR
19	has no clear incentive to control costs because any
20	cost that's incurred, gets repaid by AEP Ohio through
21	the PPA, plus a return on investment. And I would
22	say that AEP Ohio's essentially indifferent to costs
23	that's incurred because that cost gets transferred to
24	AEP Ohio's customers through the PPA rider.
25	Q. Okay. I understand your view, and my

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1	question is this: When the annual managerial audit
2	is conducted as proposed by the company here, how
3	will the prudence review of costs in that audit
4	differ from the prudence review that was conducted
5	when these plants were in cost-of-service rates, if
6	you know?
7	MR. DARR: Objection.
8	EXAMINER SEE: Grounds, Mr. Darr?
9	MR. DARR: Same grounds as before, your
10	Honor. If you'll go back and look at the
11	Commission's review, for example, of Zimmer. I think
12	you're going to find that that process was a lot more
13	interesting than what's implied by this question.
14	And whether or not there were other prudence reviews
15	has not been demonstrated on the face of the record
16	here today or at any other time during this hearing.
17	EXAMINER SEE: Mr. McKenzie, response?
18	MR. McKENZIE: Your Honor, that would be
19	interesting if Mr. Darr were testifying. I didn't
20	hear an evidentiary objection there. If this witness
21	doesn't know the answer to my question, he can say
22	so.
23	MR. DARR: The objection, your Honor, was
24	very clear, which is he's assuming facts in evidence
25	which simply are not there. The question assumes

3452 that certain things took place, and there is no 1 2 demonstration in this record that any of those things 3 took place. MR. STINSON: And it's been asked and 4 5 answered. MR. DARR: If I may, your Honor, one 6 7 other thing --EXAMINER SEE: Just a second. 8 9 MR. DARR: Certainly, your Honor. 10 EXAMINER SEE: Hold on, Mr. Darr. 11 I'm going to overrule the objection, and 12 the witness can answer the question as best he can. 13 THE WITNESS: Would you mind rereading 14 it. 15 EXAMINER SEE: Yes. 16 (Record read.) 17 Α. So not knowing the specifics of how or -how cost of these plants was historically recovered, 18 19 I can't comment on that. 20 Okay. Let's go to your testimony, page 0. 21 21, line 21. You say, "If the Early Termination 2.2 clause is invoked, the PUCO may find itself in the 23 position of having to allow for recovery of Early 24 Termination clause-related costs from ratepayers or 25 having AEP Ohio bear these costs. This latter option

3453 may prove untenable, because it could harm AEP Ohio's 1 2 financial solvency and reduce AEP Ohio's ability to 3 reliably serve customer demands." Did I read that 4 correctly? 5 Α. Yes, you did. First of all, you'd say that AEP Ohio has 6 Ο. 7 an incentive to avoid harm to its financial insolvency, correct? 8 9 Α. I'm not sure that I make such a claim in 10 the --11 No, I'm asking. 0. 12 Α. -- in the sentences that you read. 13 Right. I'm asking you. You do reference Ο. 14 AEP Ohio's financial solvency, here, correct, on line 15 3 of page 22? 16 Α. I do, yes. 17 Ο. And you say that AEP Ohio has an 18 incentive to avoid harm to its financial solvency, 19 correct? 20 Α. I would assume so. I don't definitively 21 know management decisions that are made by -- within 2.2 AEP Ohio. 23 And the early termination clause payments Ο. 24 that you're referring to there, they're measured, in 25 part, by the net book value of the PPA plants,

3454 1 correct? 2 That is my recollection of what I saw in Α. 3 reviewing the PPA term sheet. 4 Ο. And you reviewed the company's application and the company witnesses' testimony in 5 this case, correct? 6 7 I reviewed the application, and I Α. reviewed testimony that pertained to the portions of 8 9 the application that I was -- that I'm addressing in 10 my testimony. 11 Okay. But you don't know what the Ο. 12 current net book value of the PPA plants is, correct? 13 No. I don't recall that detail. Α. 14 Ο. You're not familiar with the PPA plants' 15 depreciation schedules or rates, correct? 16 No, I'm not aware of that detail. Α. You don't know what AEP Ohio's current 17 Ο. 18 credit rating is, correct? 19 Α. No, I'm not aware of its current credit 20 rating. 21 And you don't know what AEP Ohio's Q. 2.2 current debt-to-equity ratio is, correct? 23 Α. No, I don't know that detail. 24 You reference the competition transition Q. 25 charge in the next paragraph, and you say that this

3455 led to financial difficulty and the eventual 1 2 bankruptcy of Pacific Gas and Electric Company; is 3 that right? 4 Α. In lines 6 through 14? Right. Pacific Gas and Electric, that's 5 Ο. 6 the company you had the summer internship for? 7 I had that and other working engagements Α. with Pacific Gas and Electric, yes. 8 9 Ο. And what was Pacific Gas and Electric's 10 financial status before it declared bankruptcy? 11 Is your question immediately before it Α. 12 filed bankruptcy, or decades before or, when are you 13 asking? 14 Well, how about at the institution of the Ο. 15 competition transition charge, when did that happen? 16 I don't definitively remember off the top Α. my head exactly when it began. I believe it was in 17 18 the late-1990s. 19 And when it began, do you know what Q. 20 Pacific Gas and Electric Company's credit rating was? 21 Α. I do not recall that. 2.2 Ο. Do you know what its debt-to-equity ratio 23 was at that time? 24 I do not recall that. Α. 25 Okay. Let's go to page 28 of your Q.

3456 testimony, please. I'm sorry. I'm sorry, I misread 1 2 that. Page 23 of your testimony, line 18. You say, "AEP Ohio's claim that the PPA could produce a \$574 3 4 million credit to ratepayers over its term is difficult to accept prima facie." Did I read that 5 6 correctly? 7 You did, yes. Α. I believe you just said you did review 8 Ο. 9 AEP Ohio's witness testimony in this case, correct? 10 Α. I did review testimony that pertained to 11 the portion or pertained to matters in the 12 application that my testimony addresses. 13 Okay. But you don't know what Witness Ο. 14 Bletzacker's fundamentals forecast is, correct? 15 I don't know what you mean by Α. 16 "fundamentals forecast." 17 Ο. Okay. You haven't done any analysis or 18 competing price forecasts for this proceeding, 19 correct? 20 Α. I have not done any price forecasting 21 myself, no. 2.2 Ο. Nor have you done any dispatch models for 23 the PPA units, correct? 24 Α. I have not, no. 25 You're familiar with the Commission's Ο.

3457 February 25th, 2015, order in AEP Ohio's most 1 2 recent ESP case, correct? You reference it on page 4 3 of your testimony. 4 Α. So are you referring to the order in which the Commission outlined what it termed and what 5 I term AEP Ohio PPA factors? 6 7 Yes. You're familiar with that, correct? Ο. 8 Α. I am familiar with that, yes. 9 Ο. You don't believe those factors are 10 appropriate, correct? 11 Α. I do not believe those factors on their 12 own are sufficiently exhaustive to make a completely 13 informed judgment regarding the PPA and the PPA 14 rider. 15 And you think those factors are biased, Ο. 16 correct? 17 Α. I believe that the factors and the way 18 that AEP has responded to them shows a bias towards 19 building a case for approving the PPA and the PPA 20 rider. 21 You had two things in there I just want Q. to make sure I understand. The factors themselves 2.2 23 are biased, correct? 24 I believe the factors themselves, the Α. 25 way that they are worded, could be interpreted as

3458 1 introducing a bias. 2 And you were aware that the Commission Ο. 3 established those factors, correct? 4 Α. That's my understanding. So you're saying the Commission is 5 Ο. biased; is that what you're saying? 6 7 MR. STINSON: Objection, your Honor, that's argumentative. 8 9 MR. McKENZIE: I'll withdraw the last 10 question. 11 Ο. Let's go to page 27 of your testimony, 12 please, line 1. 13 Α. Yes. 14 You say, "Reliability benefits of Q. 15 generating units are typically measured by conducting 16 a loss of load expectation (LOLE) or similar reliability study of a power system?" Did I read 17 18 that correctly? 19 Α. Yes, you did. 20 Ο. Now, you have yourself conducted loss of 21 load expectation and reliability studies in the past, 2.2 correct? 23 Α. I have, that is correct. 24 But you did not do a loss of load Q. 25 expectation study for this proceeding, correct?

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1	A. No, I did not.
2	Q. Okay. Let's go to page 37 of your
3	testimony, please, line 13. You say, "The state of
4	Ohio has demonstrated a commitment to allowing
5	competitive wholesale markets, such as those operated
6	by PJM, to provide lower-cost, more reliable, and
7	more efficient electricity service to the benefit of
8	customers throughout the state. The state of Ohio's
9	commitment has been demonstrated through the adoption
10	of S.B. 3 and subsequently through S.B. 221." Did I
11	read that correctly?
12	A. Yes, you did.
13	Q. Did you review Senate Bill 221 prior to
14	writing this statement?
15	A. I have I have read Senate Bill 221 in
16	the past. I have a broad understanding of what
17	Senate Bill 221 contained, but not being a legal
18	expert, I don't I don't have a full I don't
19	have the ability to provide a full legal analysis of
20	the bill.
21	Q. I just want to get the timing. You say
22	you've read Senate Bill 221 in the past. Had you
23	read it before you wrote this statement?
24	A. Yes, I have.
25	Q. Okay. What part of Senate Bill 221 were

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1 you thinking of when you said it, quote, demonstrated 2 a commitment to allowing competitive wholesale 3 markets?

A. Well, my understanding of Senate Bill 221 is that one of the things that it allowed for is it essentially provided two standard mechanisms to provide something that's akin to default service to utility distribution company customers, which are the ESP and, I believe, MRO is the other option.

And so my understanding and interpretation of that was that what the legislator was hoping to do was to basically provide mechanisms for default service to customers that could sort of coexist with the wholesale competitive markets that PJM operates and competitive retail service by CRES providers.

Q. Okay. Let's put it this way. You can't say whether Senate Bill 221 was a move toward more competition for generation supply or less competition for generation supply, correct?

A. No, I wouldn't offer a definitive opinionon that, no.

Q. And you don't know whether as part of an
ESP under Senate Bill 221, a utility can include a
charge for recovering the cost of building new

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generation, correct? 1 2 My recollection is that Senate Bill 221 Α. 3 allowed certain types of nonbypassable charges under 4 certain circumstances. I don't recall off the top of 5 my head the details of what those charges could be used to recover the cost of and what are the 6 7 conditions under which such a charge can be imposed 8 on customers. 9 So the answer is you don't know whether Q. 10 under Senate Bill 221 the utility can include a 11 charge for recovering the cost of building new 12 generation, correct? 13 MR. STINSON: Objection. Asked and 14 answered. 15 EXAMINER SEE: The witness can answer the 16 question. 17 Α. So I would tell you that I just 18 summarized my understanding of the fact that a -- the 19 Commission can allow for nonbypassable charges on 20 customers. I don't know the details of what types of 21 costs those can be used to recover, and I don't know 2.2 the details of what are the requirements to impose 23 such a charge on customers. 24 Q. Do you recall that you were deposed for 25 this proceeding?

3462 1 I do, yes. Α. 2 MR. McKENZIE: May we approach? 3 EXAMINER SEE: Yes. 4 MR. McKENZIE: Thank you. 5 Ο. I'm sorry, one other question, when you were deposed, you were under oath, correct? 6 7 I was, yes. Α. Dr. Sioshansi, I have handed you a copy 8 Ο. 9 of your deposition transcript. Could you please turn 10 to page 74. 11 Α. Yes. 12 Q. Line 21: Question: "So you do not know whether as part of an ESP an electric distribution 13 14 utility can include a charge recovering the cost of 15 building new generation?" 16 Answer: "I don't specifically -- I don't 17 remember the details to say definitively." 18 That was your answer, correct? 19 Α. That's correct. 20 Q. Okay. Let's go back to your testimony, 21 page 40, please, line 14. You say, "The PUCO's 2.2 consideration of an economic analysis should take 23 into account any of the costs of keeping potentially 24 inefficient plants running. In addition, such an 25 analysis should take into account the economic

development associated with the potential entry of 1 2 new generating or transmission assets if the PPA 3 Units are retired. Thus, in sum, the PPA may have 4 detrimental effects on economic development, job retention, and the local and statewide tax base that 5 6 are not captured at all in the limited analysis 7 provided by AEP Ohio." Did I read that correctly? 8 Α. Yes, you did. 9 Now, you, yourself, did not do any Q. 10 economic analysis for this case of the alleged 11 detrimental effects on economic development, job 12 retention, and the local and state tax base, correct? 13 That's correct. Α. 14 MR. McKENZIE: No further questions. 15 EXAMINER SEE: Mr. Beeler? 16 MR. BEELER: No questions, your Honor. 17 EXAMINER SEE: Any redirect, Mr. Stinson? 18 MR. STINSON: If we could have a few 19 moments, your Honor, I'd appreciate it. 20 EXAMINER SEE: Yes, you may. 21 (Recess taken.) 2.2 EXAMINER SEE: Let's go back on the 23 record. 24 Mr. Stinson. 25 MR. STINSON: Just a few questions on

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3464 1 redirect, your Honor. 2 3 REDIRECT EXAMINATION 4 By Mr. Stinson: 5 Dr. Sioshansi, do you recall the counsel Ο. for AEP asked certain questions about whether certain 6 7 subsidies may be beneficial? Α. I do. 8 9 And did you identify any beneficial Q. 10 subsidies in this proceeding? 11 So, based on my examination of the Α. 12 application, I don't see any benefits from the 13 potential subsidy here. If we were to look, for 14 instance, at the so-called AEP Ohio PPA factors, I 15 don't see any demonstration of the PPA units 16 addressing reliability concerns, so, for instance, 17 the application doesn't include a loss of load 18 expectation or a similar type of reliability study to 19 demonstrate that it addresses reliability concerns. 20 I haven't seen that there's been an 21 exhaustive analysis of economic development benefits. 2.2 Again, as I outline in my testimony, I don't see that 23 there's any supply diversity benefit of -- provided 24 by the PPA units. 25 Also do you recall through much of his --0.

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1	or many questions that counsel for AEP referenced
2	many PJM rules? Can you just explain the purpose of
3	your testimony, the general purpose of your testimony
4	Dr. Sioshansi?
5	MR. McKENZIE: Objection. That's too
6	broad of a question for redirect. It's outside the
7	scope of cross, to ask him to summarize the purpose
8	of his testimony.
9	MR. STINSON: I disagree, your Honor
10	counsel spent a considerable amount of time
11	referencing specific rules, and Dr. Sioshansi's
12	testimony is based upon various policy
13	considerations. He can elaborate on that.
14	MR. McKENZIE: Your Honor, I don't
15	believe that was the question. He asked him to
16	summarize the purpose of his testimony not to discuss
17	any particular PJM rules.
18	MR. STINSON: Your Honor, I prefaced it
19	on the basis that many of counsel's cross was based
20	upon PJM rules and Dr. Sioshansi's knowledge of those
21	rules, and here I'm asking Dr. Sioshansi to indicate
22	what his testimony is based upon, the rules or policy
23	or what's that basis.
24	EXAMINER SEE: And I'm going to allow the
25	witness to answer that question.

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1	A. So my testimony is, in large part, based
2	off of expertise in general design principles of how
3	restructured wholesale markets are supposed to help
4	improve short- and long-run efficiency of electricity
5	supply. My expertise is not in the particular
6	details of PJM market rules, but, again, it's in a
7	broad understanding of how markets are supposed to be
8	designed to improve efficiency, reliably serve
9	customer demands, things of that sort.
10	Q. And, finally, Dr. Sioshansi, do you
11	recall counsel for AEP's questions regarding whether
12	SB 221 presented a move toward or away from
13	competition?
14	A. Yes, I do.
15	Q. Do you have an opinion on that?
16	A. So in thinking about it, I would say that
17	in some sense Senate Bill 221 reaffirmed the market
18	restructuring that Senate Bill 3 had started earlier
19	insomuch as Senate Bill 221 did not move towards
20	having utilities I'm not sure that this is a real
21	word but "undebundle" their service. You didn't have
22	a move back towards vertically integrated utilities
23	in Senate Bill 221, rather, the state essentially
24	kept the restructured wholesale markets in place in
25	the state in Senate Bill 221.

3467 1 MR. STINSON: Thank you. 2 No further questions, your Honor. 3 EXAMINER SEE: Mr. Mendoza? 4 MR. MENDOZA: No questions, your Honor. 5 EXAMINER SEE: Ms. Bojko? 6 MS. BOJKO: No, thank you. 7 EXAMINER SEE: Mr. Darr? MR. DARR: No questions. 8 9 EXAMINER SEE: Mr. Boehm? 10 MR. K. BOEHM: No questions, your Honor. 11 EXAMINER SEE: Mr. McKenzie? 12 MR. McKENZIE: Just one second, your 13 Honor. 14 I have no questions. 15 MR. STINSON: At this time, your Honor --16 MR. BEELER: No questions from staff, 17 your Honor. 18 MR. STINSON: I'm sorry. 19 EXAMINER SEE: Thank you, Mr. Beeler. 20 MR. BEELER: You're welcome. 21 EXAMINER SEE: Mr. Stinson, go ahead. 2.2 MR. STINSON: Thank you, your Honor. At this time I would move admission of OCC Exhibit 23 24 No. 12. 25 EXAMINER SEE: Are there any objections

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1	to admission of OCC Exhibit 12?
2	MR. McKENZIE: No, your Honor.
3	EXAMINER SEE: Hearing none, OCC Exhibit
4	12 is admitted into the record.
5	(EXHIBIT ADMITTED INTO EVIDENCE.)
6	EXAMINER SEE: Thank you.
7	THE WITNESS: Thank you.
8	EXAMINER SEE: With that, we're adjourned
9	for today. We'll start again tomorrow at 9 a.m.
10	(The hearing adjourned at 5:33 p.m.)
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1	CERTIFICATE
2	I do hereby certify that the foregoing is
3	a true and correct transcript of the proceedings
4	taken by me in this matter on Monday, October 19,
5	2015, and carefully compared with my original
6	stenographic notes.
7	
8	Maria DiPaolo Jones, Registered
9	Diplomate Reporter and CRR and Notary Public in and for the
10	State of Ohio.
11	My commission expires June 19, 2016.
12	
13	
14	
15	Rosemary Foster Anderson, Professional Reporter and Notary
16	Public in and for the State of Ohio.
17	My commission expires April 5, 2019.
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Case No(s). 14-1693-EL-RDR, 14-1694-EL-AAM

Summary: Transcript In the Matter of the application of Ohio Power Company hearing held on 10/19/15 - Volume XIII electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Anderson, Rosemary Foster Mrs.