BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO In the Matter of the Application of Ohio Edison: Company, The Cleveland : Electric Illuminating Company, and The Toledo Edison Company for : Case No. 14-1297-EL-SSO Authority to Provide for : a Standard Service Offer : Pursuant to R.C. 4928.143 : in the Form of an Electric: Security Plan. PROCEEDINGS before Mr. Gregory Price, Ms. Mandy Chiles, and Ms. Megan Addison, Attorney Examiners, at the Public Utilities Commission of Ohio, 180 East Broad Street, Room 11-A, Columbus, Ohio, called at 10:00 a.m. on Monday, October 5, 2015. VOLUME XXIII ARMSTRONG & OKEY, INC. 222 East Town Street, Second Floor Columbus, Ohio 43215-5201 (614) 224-9481 - (800) 223-9481 Fax - (614) 224-5724

## 1 **APPEARANCES:** 2 FirstEnergy Corp. By Mr. James W. Burk 3 and Ms. Carrie M. Dunn 76 South Main Street Akron, Ohio 44308 4 5 Calfee, Halter & Griswold LLP By Mr. James Lang and Mr. N. Trevor Alexander 6 The Calfee Building 7 1405 East Sixth Street Cleveland, Ohio 44114 8 Jones Day 9 By Mr. David A. Kutik 901 Lakeside Avenue 10 Cleveland, Ohio 44114 11 On behalf of the Applicants. 12 Bruce J. Weston, Consumers' Counsel By Mr. Larry Sauer Ms. Maureen R. Grady Willis 13 Mr. William J. Michael Mr. Kevin F. Moore 14 Mr. Ajay K. Kumar Assistant Consumers' Counsel 15 10 West Broad Street, Suite 1800 16 Columbus, Ohio 43215-3485 17 On behalf of the Residential Consumers of Ohio Edison Company, The Cleveland 18 Electric Illuminating Company, and The Toledo Edison Company. 19 Ohio Partners for Affordable Energy 20 By Ms. Colleen L. Mooney 231 West Lima Street 21 Findlay, Ohio 45840 22 On behalf of the Ohio Partners for Affordable Energy. 23 24 25

4	6	0	7
-	$\sim$	$\sim$	'

1 APPEARANCES: (Continued) 2 Bricker & Eckler, LLP By Mr. Dane Stinson 3 and Mr. Dylan Borchers 100 South Third Street 4 Columbus, Ohio 43215-4291 5 Bricker & Eckler, LLP By Mr. Glenn S. Krassen 1001 Lakeside Avenue East, Suite 1350 6 Cleveland, Ohio 44114 7 On behalf of the Northeast Ohio Public 8 Energy Council, Ohio Schools Council, and Power for the Schools. 9 Earthjustice 10 By Mr. Shannon Fisk Northeast Office 1617 John F. Kennedy Boulevard, Suite 1675 11 Philadelphia, Pennsylvania 19103 12 Earthjustice 13 By Mr. Michael Soules 1625 Massachusetts Avenue NW, Suite 702 14 Washington, D.C. 20036 15 Sierra Club Environmental Law Program Mr. Tony Mendoza 16 85 Second Street, 2nd Floor San Francisco, California 94105 17 Richard Sahli Law Office, LLC By Mr. Richard C. Sahli 18 981 Pinewood Lane 19 Columbus, Ohio 43230-3662 20 On behalf of the Sierra Club. 21 McNees, Wallace & Nurick LLC By Mr. Frank P. Darr 22 and Mr. Samuel C. Randazzo 21 East State Street, 17th Floor 23 Columbus, Ohio 43215 24 On behalf of the Industrial Energy Users of Ohio. 25

4608 1 **APPEARANCES:** (Continued) 2 IGS Energy By Mr. Joseph Oliker 3 6100 Emerald Parkway Dublin, Ohio 43016 4 On behalf of IGS Energy. 5 Taft, Stettinius & Hollister LLP 6 By Mr. Mark S. Yurick and Mr. Devin D. Parram 7 65 East State Street, Suite 1000 Columbus, Ohio 43215 8 On behalf of The Kroger Company. 9 Vorys, Sater, Seymour & Pease, LLP 10 By Mr. M. Howard Petricoff Ms. Gretchen Petrucci 11 Mr. Stephen M. Howard and Mr. Michael J. Settineri 12 52 East Gay Street Columbus, Ohio 43215 13 On behalf of Retail Energy Supply 14 Association, PJM Power Providers Group, Electric Power Supply Association, 15 Constellation NewEnergy, and Exelon Generation, LLC. 16 Mike DeWine, Ohio Attorney General 17 By Mr. William L. Wright, Section Chief 18 Mr. Thomas G. Lindgren Mr. Thomas W. McNamee 19 Mr. Steven L. Beeler Assistant Attorneys General 20 Public Utilities Section 180 East Broad Street, 6th Floor 21 Columbus, Ohio 43215 22 On behalf of the Staff of the PUCO. 23 24 25

```
4609
```

```
1
      APPEARANCES:
                   (Continued)
 2
             Kravitz, Brown & Dortch, LLC
             By Mr. Michael D. Dortch
 3
             and Mr. Richard R. Parsons
             65 East State Street, Suite 200
             Columbus, Ohio 43215
 4
 5
                  On behalf of Dynegy, Inc.
 6
             Carpenter Lipps & Leland LLP
             By Ms. Kimberly W. Bojko
 7
             Ms. Rebecca L. Hussey
             Ms. Danielle Ghiloni
             280 North High Street, Suite 1300
 8
             Columbus, Ohio 43215
 9
                  On behalf of the Ohio Manufacturers'
10
                  Association Energy Group.
11
             Carpenter Lipps & Leland LLP
             By Mr. Joel E. Sechler
12
             280 North High Street, Suite 1300
             Columbus, Ohio 43215
13
                  On behalf of EnerNOC, Inc.
14
             Boehm, Kurtz & Lowry
15
             By Mr. Michael L. Kurtz
             Mr. Kurt J. Boehm
16
             Ms. Jody Kyler Cohn
             36 East Seventh Street, Suite 1510
17
             Cincinnati, Ohio 45202
18
                  On behalf of the Ohio Energy Group.
19
             Environmental Law & Policy Center
             By Ms. Madeline Fleisher
20
             21 West Broad Street, Suite 500
             Columbus, Ohio 43215
21
                  On behalf of the Environmental Law &
22
                  Policy Center.
23
24
25
```

```
4610
 1
      APPEARANCES:
                    (Continued)
 2
             Stone Mattheis Xenopoulos & Brew, PC
             By Mr. Michael Lavanga
 3
             Mr. Garrett A. Stone
             Mr. Owen J. Kopon
 4
             1025 Thomas Jefferson Street, N.W.
             Eighth Floor West Tower
 5
             Washington, D.C. 20007-5201
                  On behalf of the Nucor Steel Marion, Inc.
 6
 7
             Barth E. Royer, LLC
             By Mr. Barth E. Royer
             2740 East Main Street
 8
             Bexley, Ohio 43209
 9
             and
10
             Taft, Stettinius & Hollister LLP
11
             By Mr. Adrian D. Thompson
             200 Public Square, Suite 3500
12
             Cleveland, Ohio 44114-2300
13
                  On behalf of the Cleveland Municipal
                  School District.
14
             Spilman, Thomas & Battle, PLLC
             By Mr. Derrick Price Williamson
15
             Ms. Carrie Harris
16
             Ms. Lisa Hawrot
             1100 Bent Creek Boulevard, Suite 101
17
             Mechanicsburg, Pennsylvania 17050
18
                  On behalf of Wal-Mart Stores East, LP,
                  and Sam's East, Inc.
19
             Mr. Richard L. Sites
20
             155 East Broad Street
             Columbus, Ohio 43215
21
             Bricker & Eckler, LLP
22
             By Mr. Thomas J. O'Brien
             100 South Third Street
23
             Columbus, Ohio 43215-4291
24
                  On behalf of the Ohio Hospital
                  Association.
25
```

1	APPEARANCES: (Continued)
2 3	Ohio Environmental Council By Mr. Trent A. Dougherty and Mr. John Finnigan
4	1145 Chesapeake Avenue, Suite I Columbus, Ohio 43212
5	On behalf of the Ohio Environmental Council and the Environmental Defense
6	Fund.
7 8	Mr. Thomas R. Hays 8355 Island Lane Maineville, Ohio 45039
-	
9 10	On behalf of the Northwest Ohio Aggregation Coalition and the Individual Communities.
11	Ice Miller, LLP
12	By Mr. Christopher Miller, 250 West Street, Suite 700
13	Columbus, Ohio 43215-7509
14	On behalf of the Association of Independent Colleges and Universities of Ohio.
15	0110.
16	American Electric Power By Mr. Steven T. Nourse
17	Mr. Matthew J. Satterwhite One Riverside Plaza
18	Columbus, Ohio 43215
	On behalf of the Ohio Power Company.
19	Mr. Craig I. Smith
20	15700 Van Aken Boulevard #26 Shaker Heights, Ohio 44120
21	
22	On behalf of Material Sciences Corporation.
23	Meissner and Associates Law Firm
24	By Mr. Joseph Patrick Meissner 5400 Detroit Avenue Cleveland, Ohio 44102
25	CIEVELAND, ONLO HHIOZ

```
1
      APPEARANCES: (Continued)
 2
             Kegler, Brown, Hill & Ritter
             By Mr. Christopher J. Allwein
 3
             and Ms. Margeaux Kimbrough
             Capitol Square, Suite 1800
 4
             65 East State Street
             Columbus, Ohio 43215-4294
 5
                  On behalf of the EverPower Wind Holdings,
 6
                  Incorporated.
 7
             City of Cleveland
             By Ms. Kate E. Ryan
 8
             Assistant Director of Law
             601 Lakeside Avenue, Room 106
 9
             Cleveland, Ohio 44114
10
                  On behalf of the City of Cleveland.
11
                                _ _ _
12
13
14
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4615 Monday Morning Session, 1 2 October 5, 2015. 3 4 EXAMINER ADDISON: The Public Utilities 5 Commission has set for hearing at this time and place Case No. 14-129-EL-SSO, being In the Matter of the 6 7 Application of Ohio Edison Company, the Cleveland 8 Electric Illuminating Company and The Toledo Edison 9 Company for Authority to Provide a Standard Service 10 Offer pursuant to RC 4928.143 in the Form of an Electric Security Plan. 11 12 My name is Megan Addison and with me are 13 Gregory Price and Mandy Chiles and we're the attorney 14 examiners assigned by the Commission to hear this 15 case. We will dispense with taking appearances this 16 morning. 17 Mr. Sauer, are you ready to call your 18 next witness. 19 MR. SAUER: We are, your Honor, thank 20 you. The OCC calls Professor Steven Ferrey to the 21 stand and would like his direct testimony marked as 22 OCC Exhibit 20. 23 In addition, we would ask that the 24 professor's amended direct testimony dated 25 October 1st, 2015 be marked as OCC Exhibit 21.

4616 1 EXAMINER ADDISON: So marked. 2 (EXHIBITS MARKED FOR IDENTIFICATION.) 3 EXAMINER ADDISON: Please proceed, 4 Mr. Sauer 5 MR. SAUER: Thank you, your Honor. 6 7 STEVEN FERREY 8 being first duly sworn, as prescribed by law, was examined and testified as follows: 9 10 DIRECT EXAMINATION By Mr. Sauer: 11 12 Q. Please state your full name and business address for the record. 13 Steven Ferrey. I'm a professor of law at 14 Α. Suffolk University Law School in Boston, which is 120 15 16 CK Tremont Street, Boston Massachusetts. 17 And are you the same Steven Ferrey whose Q. 18 direct testimony was filed in this case? Yes, I am. 19 Α. 20 On whose behalf do you appear? Q. On behalf of the Ohio Consumers' Counsel. 21 Α. 22 And do you have your prepared testimony Q. 23 with you on the stand? 24 Yes, I do. Α. 25 Q. And did you prepare the testimony or have

4617 it prepared at your direction? 1 2 Α. I did. 3 And do you have any additional changes or Ο. 4 corrections to your direct testimony other than those 5 that appear in OCC Exhibit 21? Yes. I have four small changes on pages 6 Α. 7 11 and 12, if I may. 8 MS. BOJKO: Excuse me. Could you turn 9 your microphone on, please? 10 I said I haves changes on pages 11 and 12 Α. of the testimony. If I may, first on page 11, line 11 12 18, after the word "particulate," I would like to add "and sulfur dioxide." 13 14 The second change is on the same page 11 on line 21. After the word "for," I would like to 15 16 add "SO-2 and." 17 On page 12 of my testimony, on line 8, after the word "matter," I would like to add "and 18 SO-2." 19 20 Also, on page 12, line 9, after the 21 initials "tby," I'd like to add "of SO-2 in certain 22 areas." And those are my changes. And if I asked you today the same 23 Q. 24 questions found in your direct testimony in OCC 25 Exhibit 20 and amended direct testimony appearing in

4618 OCC Exhibit 21, would your answers be the same except 1 2 for the changes made to your direct testimony made on 3 the stand? 4 Α. It would. 5 MR. SAUER: The OCC would move for the admission of OCC Exhibit 20 and 21 and tender this 6 7 witness for cross-examination. 8 EXAMINER ADDISON: We will defer ruling on the motion until after cross-examination has been 9 10 completed. Mr. Parram, do you have any questions? 11 12 MR. PARRAM: No, your Honor. 13 MR. LANG: Your Honor, may I make a 14 motion to strike, please. 15 EXAMINER ADDISON: You may. 16 MR. LANG: Your Honor, the motions 17 involve Mr. Ferrey's testimony on page -- starts at 18 page 27, line 8, running through page 32. There's 19 two pieces to this. They're related. First is the Q 20 and A, question and answer, 39. On page 27 on lines 21 8 through 14, in this section, the witness is drawing 22 a legal conclusion based on Ohio law, and, in 23 particular, the Keco decision regarding the impact of 24 a severability provision in the electric security 25 plan.

He's not addressing the form of the severability provision, but the legal result of the of the severability provision. He's stated his legal opinion, which infringes on the sole province of the Commission to reach legal conclusions.

Professor Ferrey is an attorney; however, 6 7 he's not a licensed attorney in Ohio, and he was not 8 retained by Consumers' Counsel to provide legal 9 assistance, legal services. Even if he were a 10 licensed attorney in Ohio, it would still be improper 11 under the Ohio rules of evidence to provide testimony 12 regarding legal analysis or legal conclusions, which 13 is what he's doing in this answer 39.

14 There are many Ohio court decisions 15 excluding testimony, whether it's lay or expert, that 16 is providing legal conclusions. One court decision 17 of interest is CK Wagenheim versus Alexander Grant, 18 19 Ohio F.3rd 7. It's Franklin County Court of 19 Appeals, 1983. The issue is with regard to legal 20 conclusions. What the courts typically say is it 21 infringes on the province of the tribunal, in this 22 case, the Commission. The issue is that the expert 23 witness is not providing any fact or opinion as an 24 expert that can be helpful to the tribunal in making 25 the decision because the tribunal is the one that

1	reaches the legal conclusions in the case, not the
2	experts.
3	So I would that's the first part of
4	this, is that specific question and answer I move to
5	strike. Related to that, on the same grounds is the
6	remainder of page 27 running through the end of page
7	32, question and answers 40 through 49.
8	What the witness is doing hear is making
9	legal argument based on a mischaracterization of
10	company Witness Moul's testimony that the PUCO's
11	approval of rider RRS in a manner that would
12	authorize a wholesale power arrangement could violate
13	the Federal Power Act.
14	Now, besides mischaracterizing Mr. Moul's
15	testimony, Mr. Ferrey is addressing federal
16	regulation of wholesale power sales. Mr. Ferrey
17	actually makes clear that that regulation of federal
18	power sales is not within the jurisdiction of the
19	Commission. We would agree, and as a result, not
20	only is this discussion on pages 27 through 32
21	improper, it's also irrelevant to the Commission's
22	determination in this case. It does not provide
23	probative value.
24	The PUCO's authority to review the ESP is
25	defined by Ohio law. Nowhere within the scope of

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1	that review is included review or approval of
2	wholesale power sales, which is the topic of
3	Professor Ferrey's testimony in this section, nor are
4	the companies asking the PUCO to approve a wholesale
5	power sale, thus these questions 40 through 49 and
6	the answers attached to should be stricken both as
7	improper legal analysis and legal conclusions and
8	also irrelevant under Rules 401 and 403.
9	Thank you, your Honor.
10	EXAMINER ADDISON: Thank you.
11	Mr. Sauer, do you have a response?
12	MR. SAUER: Thank, your Honor. It's
13	clear that under the rules of evidence a witness
14	cannot provide legal conclusions. What Professor
15	Ferrey is doing is offering his understanding and his
16	interpretation as a regulatory expert, and we're in
17	week 6 of the hearing where countless witnesses have
18	been permitted as regulatory experts to provide
19	opinions and interpretations on many legal issues
20	including contract interpretations under the PPA term
21	sheet, permissibility of regulations under the
22	4928.143. Environmental regulations have been the
23	requirements of environmental regulations have been
24	discussed as well.
25	EXAMINER PRICE: But in all fairness,

nobody has discussed cases the way this witness has discussed what cases say. I agree that we've allowed people to interpret regulations, and I agree that we've allowed people to discuss statutes and policy provisions, but what I cannot recall off the top of my head is anybody talking about what this case means and what that case means.

8 MR. SAUER: Well, the Commission's teed 9 this up, your Honor, by asking the companies for a 10 severability provision, which will allow in the event 11 a PUCO order approving the RRS is overturned by a 12 court of competent jurisdiction, and Professor Ferrey 13 is just laying out the risks that could occur if that 14 happens, and he's giving occurrences where in New 15 Jersey and Maryland there's been state actions where 16 PPAs were approved by the commissions in those states 17 and later overturned by a court of competent 18 jurisdiction.

Our concern, and as he lays out in his testimony, is that if there is a situation where rider RRS is approved and the litigation takes numerous years and there have been collections under rider RRS, customers could be harmed by that event in the event there couldn't be a refund of those collections. So I think his testimony is relevant.

4623 1 It goes --2 EXAMINER PRICE: Why can't you make those 3 arguments on brief? If you're talking about Keco, 4 why can't you talk about Keco in your brief? 5 MR. SAUER: Your Honor, that's possible, 6 too. We'd like to have the opportunity to present 7 direct evidence to the Bench, and the Bench can give 8 it the weight the Bench determines it deserves. 9 EXAMINER PRICE: So you agree he's giving 10 a legal opinion? You just want us to hear it. MR. SAUER: No, I think he's laying out 11 12 for the Bench the risk that may be present if rider 13 RRS is approved. 14 EXAMINER ADDISON: Mr. Lang, do you have 15 anything to add? 16 MR. LANG: Your Honors, with regard to 17 the severability analysis, there are -- I believe it 18 was two questions and answers, 37 and 38, I did not 19 move to strike because that does not involve the 20 legal analysis. That then starts on questions 39 and 21 following. So I believe that the motion I've made is 22 properly limited to his legal analysis, not to a 23 description of, for example, the Commission's 24 discussion and the AEP order of a severability 25 provision where he's discussing kind of the fact of

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1	the severability provision I did not move to strike.
2	Where he is discussing or providing his
3	legal analysis, that's the part I have moved to
4	strike and the companies move to strike. This
5	issue the statement that he's providing
6	interpretation as a regulatory expert, again, this is
7	legal discussion. It's not regulatory analysis.
8	It's not policy discussion.
9	The Bench has distinguished between, for
10	example, discussions of 4928.02 as policy versus
11	providing legal analysis and conclusions, which is
12	what this witness is doing. One, the policy
13	analysis the analysis of regulatory policy, the
14	Bench has permitted witnesses to provide. This is a
15	different issue, which is legal analysis and
16	conclusions. It's not policy; therefore, I believe
17	it's improper. And as Attorney Examiner Price noted,
18	it can be made on brief.
19	MS. BOJKO: Your Honor, may I be heard,
20	please?
21	EXAMINER ADDISON: You may.

MS. BOJKO: There's company testimony in the record that talks about what happened in choice in different states. It talks about West Virginia. It talked about different programs in different areas

4625 1 in different states. I see a question and answer 40 2 and 41 doing the same thing, talking about what 3 happened in New Jersey, what happened in Maryland. 4 There's also been discussion in the 5 companies' testimony about the severability clause and the lack of risk that it poses on customers in 6 7 this case, so I think that we have every right to 8 explore the alternative. If the company is going to 9 put these things in their testimony and the 10 Commission is going to ask for these factors in how 11 the companies' application meets or doesn't meet the 12 factors, then intervenors need the opportunity to 13 present testimony that does just that, and that's 14 what several of these Q and As do. 15 Without the citations, they do exactly 16 what the other companies' witnesses did. We went 17 through testimony -- I can't recall the witness right 18 now sitting here today after six weeks of hearing, but he went through several state cases and what they

but he went through several state cases and what they did or did not do with regard to choice programs and different alternatives.

EXAMINER PRICE: You're going to have to do better than "I remember a witness at some point discussing some case." It's been six weeks. MR. MENDOZA: Your Honor, may I be heard.

1 EXAMINER ADDISON: Yes, Mr. Mendoza. 2 MR. MENDOZA: I would note some of the 3 statements in these sections do not relate 4 exclusively to legal issues. Some are factual 5 statements. For example, in question and answer 48, 6 without looking at every statement in there, the 7 witness talks about how the application for the 8 Commission would affect wholesale rates and makes 9 factual -- essentially factual statements about how, 10 I guess he's talking about rider RRS, I assume, would impact wholesale rates, and those statements are 11 12 factual conclusion. 13 EXAMINER PRICE: That's true. But if we 14 start parsing through there and carving out this line 15 and that line, it's not really going to be his 16 testimony anymore, is it? I mean, I understand what 17 you're saying. I wish there was a cleaner way to 18 allow some of what he's saying and not all of it. 19 EXAMINER ADDISON: At this time, we are 20 going to grant in part and deny in part the motion to 21 strike. We will grant the motion to strike from the 22 footnote No. 18, indicated on page 27 through page 23 32, line 14; however, we will deny the motion to 24 strike for lines 8 through 14 on page 27 up to the 25 footnote. Any additional arguments can be made on

4627 brief. 1 2 MR. LANG: Thank you, your Honor. 3 EXAMINER ADDISON: Did you have any other 4 motions to strike, Mr. Lang? 5 MR. LANG: That was it, your Honor. Thank you. 6 7 EXAMINER ADDISON: Ms. Bojko, do you have 8 any questions for this witness? 9 MS. BOJKO: I do not, your Honor, thank 10 you. EXAMINER ADDISON: Mr. Mendoza. 11 12 MR. MENDOZA: No questions, your Honor. 13 EXAMINER ADDISON: Mr. Kurtz? 14 MR. KURTZ: Your Honor, if I could go after the company, I probably don't, but I think 15 16 that's the way we've been proceeding. 17 EXAMINER ADDISON: Certainly, Mr. Kurtz. 18 Mr. Lang? 19 MR. LANG: Thank you, your Honor. 20 21 CROSS-EXAMINATION 22 By Mr. Lang: And good morning, Professor Ferrey. 23 Q. 24 Good morning, Mr. Lang. Α. 25 Q. You've been a law professor since 1985,

4628 1 correct? 2 Α. That is correct. 3 And, however, with regard to the purpose Q. 4 of your retention in this matter, you are not 5 offering legal assistance to the Office of Consumers' Counsel, correct? 6 7 Α. Yes, that's correct. 8 Ο. And the Office of Consumers' Counsel did 9 not retain you to assist them with legal services, 10 correct? 11 Correct. Α. 12 Q. Now, take you back a little in time back 13 to the 1970s. You were in a two-year Master's 14 program at UC Berkeley, correct? 15 Α. T was. And that was in the mid-1970s. 16 Ο. 17 Α. That was, yes. 18 During that time you took some classes in Q. 19 energy that were offered at UC Berkeley? 20 I did, yes. Α. 21 Ο. Was that part of the Master's program or 22 were those undergraduate classes? Those were largely part of the Master's 23 Α. 24 program. 25 Q. So just some of them were undergraduate

1 classes. No, they were not undergraduate classes, 2 Α. 3 I did a joint law degree and Master's degree, no. 4 and there would have been energy classes in the 5 Master's program that I focused on. Now, since that time you have not 6 Ο. 7 received any technical education in environmental 8 studies, correct? 9 That is correct. Α. 10 And you've not received any education or Q. training with regard to power plant operations; is 11 12 that correct? 13 Α. That is correct. 14 And you have not received any education Q. 15 or training that would be specific to pollution 16 controls at electric generating facilities, correct? 17 Α. That is correct. 18 And you also do not -- fair to say you do Ο. 19 not have any practical experience in operating a coal 20 or nuclear plant? 21 Α. That is correct. 22 Q. Is it also true that you have not had any responsibility for operating or designing pollution 23 24 controls at fossil generating stations? 25 Α. That is correct.

4630 Now, you are familiar with generally that 1 Ο. 2 PJM has energy and capacity markets, correct? 3 Α. Yes. 4 However, you have not had any education, Ο. 5 training, or experience involving the bidding of energy into the PJM energy markets, correct? 6 7 Α. That is correct with respect to PJM. 8 Ο. And you have not had any education, training, or experience involving the offering of 9 capacity into the PJM capacity markets, correct? 10 11 That is correct for PJM. Α. 12 Q. And you have not done any studies looking 13 at the impact of environmental regulations on the 14 dispatch of generating units into PJM's energy market, correct? 15 16 Α. Correct. 17 Q. Now, you are aware that the USEPA has 18 issued carbon regulations referred to as the Clean Power Plan, correct? 19 20 Α. Correct. 21 Ο. Is it true that you have not analyzed the 22 legality of the Clean Power Plan? 23 Α. I have not done a formal analysis of the 24 legality of it. I am aware of possible concerns. 25 Q. And with regard to being aware of

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1	possible concerns, that's simply a reference to that
2	there may be litigation upcoming well, current and
3	upcoming involving the Clean Power Plan, correct?
4	A. Both that there is litigation going on
5	and upcoming, as well as there has been debate in the
6	Congress as to its potential legality or illegality.
7	Q. Now, for purposes of identification of
8	reaching the conclusions that are set forth in your
9	testimony, you did not conduct any studies in order
10	to enable you to reach those conclusions, correct?
11	A. I did no independent studies, as I
12	understand you to mean "studies."
13	Q. And you did not do any analysis specific
14	to the Sammis plant for purposes of preparing your
15	testimony, correct?
16	A. That is correct.
17	Q. Now, if you can turn to page 4 of your
18	testimony. Now, on page 4 in the middle of the page,
19	you list five emission categories, and you say
20	they're either the focus of EPA regulations either
21	recently instituted or likely to be instituted,
22	correct?
23	A. Yes.
24	Q. And when you use the word "pending" in
25	your testimony, you mean regulations that are final

4632 as well as regulations that are proposed but not yet 1 2 final, correct? 3 Α. Correct. 4 Now, with regard to the environmental Ο. 5 regulations related to the emissions that you have 6 here on page 4 -- let's back up. Do you agree that 7 there are environmental regulations that are not 8 source-specific? 9 Α. Yes. And environmental regulations that are 10 Ο. not source-specific simply means that the USEPA's 11 12 regulations do not set limits on specific sources, 13 correct? 14 Some of them do not, correct. Α. 15 Ο. And carbon regulation under Clean Air Act 16 Section 111(d) known as the Clean Power Plan, that 17 would be an example of a regulation that is not 18 source-specific, correct? 19 That is not source-specific pending state Α. 20 compliance with that and no federal implementation 21 plan substituted because of state inaction, correct. 22 And there's certainly nothing in the Q. 23 Clean Power Plan federal provisions that are directed 24 at specific emission sources of carbon, correct? 25 Α. Yes. In this initial implementation,

1 they're directed at state compliance, which is not 2 source-specific.

Q. And then would you also agree that regulation of sulfur dioxide, nitrogen oxide, particulate matter and ozone under the national ambient air quality standards are also not source-specific.

A. Under the National Ambient Air Quality
Standards, the restrictions or requirements are
regional, and they are not source-specific; although,
there are other permit requirements that can be
source-specific.

Q. Now, you have not made any particular assessments of the specific impact on the Sammis plant of any of the environmental regulations described on page 4 and the following pages of your testimony, correct?

18

25

A. That is correct.

Q. And you are not offering an opinion that any of these proposed regulations will have a significant impact specifically on the Sammis plant, correct.

A. I'm not offering an opinion specificallyeither way.

Q. And it's also fair to say that the

Davis-Besse plant would not be particularly affected 1 2 by any of these air regulations. 3 That is -- yes, as a general statement, Α. 4 that's true. 5 Ο. With respect to these five categories that you discuss in your testimony, and they're 6 7 listed on page 4, you have not identified any that 8 will cause the Sammis plant to incur additional costs, correct? 9 I have not made an effort to identify any 10 Α. that would require incursion of additional costs as 11 12 opposed to existing costs. 13 Ο. And is it correct that you have not 14 reviewed the companies' 15-year cost forecast for the 15 Sammis plant, the Davis-Besse plant, and the OVEC 16 interest that's been submitted in this case? 17 Not for purposes of my testimony, no. Α. 18 And if you haven't done it for purposes Ο. 19 of your testimony, you haven't done it for any other 20 reason, correct? 21 Α. That's correct; although, I have seen 22 some of the testimony that has been given. 23 Ο. Now, if I could take you back to page 21 24 of your testimony, I'm going to skip around a little 25 bit here. Down at the bottom of page 21, starting at

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4635 line 18 and continuing through the end of the page 1 2 there, you're referring to Company Witness Moul's 3 supplemental testimony, and at line 20, you have a 4 reference to the Sammis plant air quality control. 5 With regard to that air quality control project that Mr. Moul references, is it fair to say 6 7 that you do not know whether that AQC project where 8 it's performed in the past will be performed in the future? 9 I've not particularly looked at what will 10 Α. be required in the future. I'm just referencing 11 12 Mr. Moul's statement. 13 Ο. And with regard to the AQC project, do 14 you know whether that project has been completed? I know that there have been substantial 15 Α. 16 investments in air quality control at Sammis. I 17 don't know whether it's completed at this time or 18 not. 19 In preparing your testimony, did you Q. 20 review Company Witness Harden's testimony regarding 21 the operational characteristics and environmental 22 controls at the Sammis plant? I don't recall if I did or didn't. 23 Α. 24 So is it fair to say you do not know Ο. 25 whether the costs of the AQC project are already

4636 included in the companies' 15-year forecast? 1 2 Α. I assume that a fair degree of those 3 costs are included in the 15-year forecast. The 4 evaluation I have made here is whether these plants 5 are likely to be cost effective to be run in the current phase and/or with any new improvements that 6 are required under the Clean Power Plan. 7 8 MR. LANG: Could I have his answer read 9 back, please? 10 EXAMINER ADDISON: You may. 11 MR. SAUER: Thank you. 12 (Record read.) 13 Q. So, Professor Ferrey, your response was 14 you assume a fair degree of the AQC project costs are included in the companies' cost forecast. Do you 15 16 know whether all of those costs are included in the 17 companies' cost forecast? 18 Well, I don't know whether there will be Α. 19 any future costs and whether there are other 20 maintenance costs associated with the operation of 21 the air quality control mechanisms. 22 Now, in preparing your testimony, you did Q. 23 review Company Witness Evans' supplemental testimony 24 filed on May 4th, 2015, addressing environmental 25 issues, is that true?

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1	A. I did, yes.
2	Q. And you read in his testimony that
3	there's a 2005 consent decree between the United
4	States and Ohio Edison that sets SO-2 emission limits
5	for each individual unit at Sammis. Do you remember
6	that?
7	A. I do recall there was a substantial
8	investment in the 2005 period, yes, sir.
9	Q. And with respect to the consent decree
10	that's in his testimony, did you review that consent
11	decree to see how its limits on SO-2, NOx, and
12	particulate matter compare to the National Ambient
13	Air Quality Standards?
14	A. I did not.
15	Q. And just so I'm clear, did you review the
16	consent decree for any purpose?
17	A. I did not.
18	Q. So as we sit here today, you do not is
19	it correct that you do not know whether the Sammis
20	plant has any court-imposed SO-2 or NOx emission
21	limits?
22	A. I believe in the consent decree it does
23	have certain investments that have been committed to,
24	yes.
25	Q. But that's not something you've reviewed,

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1	and so you're assuming that; you don't actually know
2	that, correct?
3	A. I did not review it, yes.
4	Q. Do you know whether the AQC project
5	that's referenced in Company Witness Moul's testimony
6	is the result of the 2005 consent decree?
7	A. Specifically, I do not know. As I
8	recall, there were investments, substantial
9	investments, made in the 2005 period and, perhaps,
10	some subsequently, perhaps five years subsequently.
11	Q. Now, on page 5 of your testimony, if I
12	could have you turn there. And, Professor Ferrey, on
13	page 5 of your testimony, you're providing some
14	general discussion of sulfur content and particulate
15	matter content of different fuel types.
16	Is it correct that your understanding of
17	sulfur content and particulate matter content for
18	different fuel types is based on work you did for a
19	client in the late 1990s and early 2000s?
20	A. Well, I think I'm knowledgeable generally
21	about what is in the literature on this, and it is
22	correct in the late 1990s and since then I have
23	worked for clients that have been concerned with
24	fossil fuel emission output.
25	Q. Understanding that you have done other

work, your understanding of the sulfur content and 1 2 the particulate matter content for different fuel 3 types is based on the work that you did in the late 4 1990s and early 2000s, correct? 5 Α. And the current literature. 6 Ο. Now, with regard to the Clean Power Plan 7 relating to carbon emissions you start discussing on 8 page 6, continuing on pages 7 and additional pages of your testimony, at a high level, you'll agree that 9 10 the Clean Power Plan will not eliminate carbon emissions at existing fossil fuel plants in the 11 12 United States, correct? 13 Α. In its current form, it will not, 14 correct. And the Clean Power Plan leaves room for 15 Ο. 16 many coal-fired power plants to continue to operate 17 through 2030 and beyond, correct? 18 It does leave room for many fossil plants Α. to operate. There are a multitude of decisions that 19 20 states will have to make to exactly how that sorts 21 out. But, yes, it leaves room, potentially leaves 22 room. 23 And you have not done any analysis or Q. 24 conducted any studies regarding what the impact of 25 the Clean Power Plan will be, correct?

1 Α. I've done no independent studies, 2 correct. 3 Now, you've attached to your testimony Q. 4 the PUCO's comments on the proposed Clean Power Plan 5 that was submitted to the USEPA on December 31, 2014, 6 correct? 7 Α. Correct. 8 Now, the PUCO in its comments estimated Ο. that redispatching gas units out of order ahead of 9 10 coal units could cost Ohio consumers approximately \$2.5 billion each year by 2025. You actually cite 11 12 that at the top of page 20 of your testimony, 13 correct? 14 I do, yes. Α. And by citing it in your testimony at the 15 Q. 16 top of page 20, are you representing that you agree 17 with the PUCO's modeling of redispatching gas units out of order? 18 19 No, I'm not saying I agree with it. Α. 20 Obviously, this depends -- dispatch is a larger 21 function of the independent system operator and which 22 one belongs, and, obviously, fuel prices have 23 continued to change since these comments. So -- and 24 we also do not know what new units will be available 25 or precisely what demand will be.

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1 So I'm not saying I necessarily agree 2 that this cost will be there. Certainly the 3 independent system operators dispatch largely based 4 on costs, and they seek to minimize costs over the 5 course of an operating day. You haven't done any modeling of the type 6 Ο. 7 that the PUCO staff did that's referenced in the 8 comments; is that correct? 9 Α. That is correct. 10 Q. However, you would agree that there could to be a significant upward impact on retail energy 11 12 prices depending upon how Ohio and other PJM states 13 decide to implement the Clean Power Plan, correct? 14 There could be an impact in that Α. 15 direction. There also could be a downward impact, so 16 it depends on fuel prices. It depends on new 17 available units. It depends on under the Clean Power 18 Plan whether states try to operate regionally or 19 operate individually. It depends on whether they use 20 a mass base standard or a rate base standard. It 21 depends on whether they allow new entrance extra 22 credits between 2018 and 2021. It depends on whether 23 they include new gas combined cycle plants within the 24 111(d) Clean Power Plan program or whether they 25 don't. There are a variety of elections that will

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1	occur not only in Ohio, but in all of the 13 PJM
2	states and the bordering MISO states.
3	MR. LANG: Your Honor, at this time I
4	would move to strike his response everything after
5	"there could be," which was responsive to my
6	question, and then I think the rest was an
7	explanation that if he wanted to, he could provide on
8	redirect.
9	EXAMINER ADDISON: Mr. Sauer, do you have
10	a response.
11	MR. SAUER: He was providing context to
12	the question that was asked.
13	EXAMINER ADDISON: Thank you. At this
14	time I'm going to deny the motion to strike.
15	But I will also direct, Mr. Ferrey, if
16	you could just answer the question posed by counsel.
17	Then Mr. Sauer can bring any additional information
18	out on redirect.
19	Q. (By Mr. Lang) Professor Ferrey, you
20	amended your testimony to make reference to the final
21	Clean Power Plan, correct.
22	A. Yes, I did.
23	Q. You agree that Ohio is not obligated to
24	implement any of what are called the building blocks
25	that are in the Clean Power Plan.

Yes. Ohio has discretion as to how to 1 Α. 2 meet the standard. 3 And the final Clean Power Plan does not Ο. 4 place limits on carbon emissions from specific 5 coal-fired power plants, correct? That is correct. It calculates based 6 Α. 7 on -- for a state, based on individual existing power plant and their emissions, but it does not place 8 going-forward requirements on specific plants. 9 Now, let me make sure I have it right. 10 Ο. On page 7, lines 14 and 15, you state that the Clean 11 12 Power Plan "could affect the frequency of dispatch 13 orders and protocols for coal plants' dispatch." You have not studied whether the Clean 14 15 Power Plan will affect the frequency of dispatch 16 orders and protocols for the Sammis plant, correct. 17 Α. That is correct. 18 And also on page 7, line 10, of your Ο. 19 testimony, where you say, "In some states this 20 constitutes up to a 50% cut in carbon emissions," but 21 the reference to "some states" does not include Ohio, 22 correct? Ohio has a somewhat lesser cut in carbon 23 Α. 24 emissions than the maximum, which is just slightly less than 50 percent in some other states. 25

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1	Q. I believe I asked you earlier if you had
2	done modeling specific to redispatch under building
3	block 2. Is it true that you have not done any
4	modeling of the impact of the Clean Power Plan?
5	A. That is correct.
6	Q. And you've not reviewed any modeling of
7	the impact of the Clean Power Plan specific to the
8	Sammis plant, correct.
9	A. That is correct, other than having seen
10	some of the testimony in this proceeding.
11	Q. Now, on page 8 of your testimony, where
12	you start discussing the Cross State Air Pollution
13	Rule or CSAPR, and the discussion here on page 8 is
14	copied from or paraphrasing of information on the
15	USEPA's website; is that correct?
16	A. Let me look at it. Not having EPA's
17	website in front of me, I'm not sure of the degree to
18	which it paraphrases or doesn't.
19	MR. LANG: May I approach, your Honor?
20	EXAMINER ADDISON: You may.
21	MR. LANG: Companies' Exhibit 66.
22	EXAMINER ADDISON: So marked.
23	MR. LANG: Your Honors, if I could have
24	this document, has the title "Cross State Air
25	Pollution Rule" at the top of it, if I could have

4645 1 that marked as Companies' Exhibit 66, please. 2 EXAMINER ADDISON: I believe it's been 3 marked. 4 MR. LANG: Thank you. 5 (EXHIBIT MARKED FOR IDENTIFICATION.) 6 Ο. Professor Ferrey, are you familiar with 7 this document? It's actually a printout from the EPA 8 website. 9 I accept it as coming from the EPA Α. website. I'm not sure the degree to which I'm 10 11 familiar with it. 12 Q. With regard to the CSAPR rule in 13 particular, have you reviewed the information 14 available on the EPA website to identify what updates have occurred with regard to the CSAPR rule or to 15 16 follow events related to the CSAPR rule? 17 Α. I have followed events in terms of it 18 being upheld, yes. 19 Let's back up a little. Q. 20 MR. LANG: Your Honors, if I could 21 approach and have a separate document marked as 22 Companies' Exhibit 67. 23 EXAMINER ADDISON: You may approach. 24 This document will be marked as 25 Companies' Exhibit 67.

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1	(EXHIBIT MARKED FOR IDENTIFICATION.)
2	Q. Professor Ferrey, do you have in front of
3	you what has been marked as Companies' Exhibit 67?
4	A. Yes, I do.
5	Q. And this would be at least the first ten
6	pages or so of the document cited on page 8 in your
7	footnote 8 as 76 Federal Register 48208; is that
8	right?
9	A. That is correct.
10	Q. And your page 8, you also have pinpoint
11	citation to page 48216, and you'll recognize that as
12	the last page of the companies' Exhibit 67, correct?
13	A. I do see that page.
14	Q. So is Companies' Exhibit 67 the content
15	and executive summary of the CSAPR rule that was
16	published on August 8th, 2011, that you reference in
17	your testimony?
18	A. I do reference this in my testimony.
19	Q. On page 8 of your testimony, line 8, you
20	say that CSAPR applies to fossil fuel fired power
21	plants in 27 Eastern states, including Ohio. And
22	that 27 states would be what is addressed in
23	August 8th, 2011 rule, correct?
24	A. Yes.
25	Q. And since this rule was issued, there was

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4647 also a separate proceeding involving CSAPR which had 1 2 the effect of adding an additional state, so it's now 3 28 states, correct? 4 Α. I believe that's correct. 5 Ο. And on Companies' Exhibit 66 from the EPA 6 website, in that first paragraph, it now says that 7 CSAPR requires a total of 28 states to reduce their 8 SO-2 and NOx emissions, correct? 9 Α. Where are you reading from? 10 Q. The other exhibit I gave you, Companies' Exhibit 66 on CSAPR, in the first paragraph, six 11 12 lines down, it says, "CSAPR now requires a total of 28 states." 13 14 Yes, it does. Α. And sorry to jump back and forth, but to 15 Q. 16 take you back to Companies Exhibit 67, the 2011 rule 17 that was issued, on page 48209, do you see in the far 18 right column there's an Executive Summary? 19 Α. Yes. 20 And in the second sentence of that Ο. 21 Executive Summary, it says, "In this final rule, EPA finds that emissions of SO-2 and NOx in 27... states 22 23 contribute significantly to nonattainment or 24 interfere with maintenance...," and it goes on. Do 25 you see that statement?

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1	A. I do.
2	Q. Do you agree that CSAPR as a rule
3	addresses cross-state transmission of SO-2 and NOx?
4	A. Yes.
5	Q. Now, in your testimony on page 8,
6	starting at line 10 going through line 13, you say,
7	"CSAPR specifically requires significant reductions
8	in SO-2, NOx, and Hazardous Air Pollutants, including
9	mercury." You agree that the reference to "hazardous
10	air pollutants including mercury" is incorrect?
11	A. Well, it's a secondary reference, because
12	NOx and SO-2, when you reduce them, also have the
13	effect of reducing other precursors that they are
14	part of and typically also reduce mercury.
15	Q. However, your testimony states that
16	"CSAPR requires significant reductions."
17	Professor Ferrey, if you could turn your
18	microphone on again, please. Sometimes it will cut
19	out.
20	The only reductions required by CSAPR are
21	SO-2 and NOx, correct
22	A. That is correct.
23	Q. And when you have the reference at the
24	end of line 12 going to 13 where you say, "as well as
25	certain fine particulate PM 2.5 precursor emissions,"

1	those fine particulate PM 2.5 precursor emissions are
2	SO-2, correct?
3	A. I think that's what it says. It says
4	that SO-2 and it is the precursor emission there.
5	Q. Now, on Companies' Exhibit 66, which is
6	the website from the EPA, I'm comparing that to your
7	testimony on page 8, lines 9 and 10. Your testimony
8	says, "CSAPR requires such to significantly improve
9	air quality by reducing power plant emissions."
10	Is this website where you carried over
11	the statement that's in your testimony on page 8,
12	lines 9 and 10, and I'm referring specifically to,
13	again, the first paragraph of Company Exhibit 66
14	where it says, starting in the second line, "This
15	rule, known as the Cross State Air Pollution Rule
16	(CSAPR), requires states to significantly improve air
17	quality by reducing power plant emissions." So the
18	only difference between the website the website
19	says "states." Your testimony says "such," correct?
20	A. The CSAPR requirements are on states,
21	yes.
22	Q. And I guess my question is, is this
23	website statement, is that where you carried over the
24	statement that's in your testimony on page 8, lines 9
25	and 10?

4650 1 Α. I don't understand the question. 2 Is Company Exhibit 66, and particularly Q. 3 the first paragraph of Company Exhibit 66, your 4 source material for the statement that you have on 5 page 8 and actually your answer 10 on page 8, but in particular the sentence that you have on lines 9 and 6 7 10? 8 I don't know that Exhibit 66, which is a Α. screen shot of one of the EPA websites, is the source 9 10 or not of my statement. With regard to your answer 11 on page 8, 11 Ο. 12 referring to the "part of a suite of other state and 13 federal rules, together, are designed to result in 14 power plant emissions reductions of 73 percent for SO2 and 54 percent for NOx," if you look at the back 15 16 page of Company Exhibit 66, the first full paragraph 17 there that starts, "CSAPR will take effect starting," 18 and then is that next sentence, the source of 19 material for your answer 11 on page 8? 20 Α. Yes. 21 Ο. Now, as originally enacted, CSAPR was 22 supposed to commence January 1 of 2012; is that your 23 understanding? 24 It was promulgated, if I recall Α. Yes. 25 correctly, in 2011 to replace the CAIR program, which

4651 had been stricken by the DC Circuit as impermissible 1 2 from a few years earlier. 3 And then this rule that was issued in Ο. 4 2011 was subject to litigation again, so it did not 5 qo into effect in 2012, correct? 6 Α. Correct. 7 Ο. And is it your understanding that the 8 first phase of CSAPR went in effect January 1, 2015? It is. 9 Α. 10 Q. Do you agree that CSAPR addresses interstate transport of what's referred to as the 11 criteria pollutants that are addressed by the 12 13 National Ambient Air Quality Standards? 14 I do, yes. Α. 15 Q. And there are six criteria pollutants, 16 correct? 17 Α. Correct. 18 Mercury is not one of those six, correct? Q. That is correct, it is considered a 19 Α. 20 hazardous air pollutant under Section 112 of the 21 Clean Air Act. 22 That's dealt with in the Mercury and Air Ο. 23 Toxics Standards Act, correct? 24 Yes, and otherwise in other sections that Α. 25 deal with it.

	4652
1	Q. Now, CSAPR is implemented through state
2	implementation plans, correct?
3	A. Correct.
4	Q. You have not looked at Ohio state's
5	implementation plan for CSAPR; is that correct?
6	A. I have not.
7	Q. And is it fair to say you have not
8	studied whether the Sammis plant is in compliance
9	with CSAPR?
10	A. That is correct. I have read the
11	testimony of some company witnesses that suggest that
12	it is in compliance. I've been more concerned with
13	the cost aspects rather than the specific compliance
14	or noncompliance today.
15	Q. However, just to be clear, you haven't
16	identified any cost aspects of CSAPR that would be
17	specific to the Sammis plant, correct.
18	A. I have not attempted to, and I have not
19	done so.
20	Q. Now, on page 9 of your testimony at line
21	9, you refer to EPA letters that were sent out in
22	March of 2015. With regard to those letters, you
23	don't know if one was sent to the state of Ohio,
24	correct?
25	A. I have not attempted to determine that,

	4653
1	no.
2	Q. Is it your testimony that the letter
3	involved area designations for the 1-hour SO-2
4	standard?
5	A. Yes.
6	Q. Now, on page 9, lines 17 through 19, you
7	have a sentence there that lists five counties in
8	Ohio that have been designated nonattainment for the
9	1-hour SO-2 standard, correct?
10	A. Yes.
11	Q. And Jefferson County is not one of those
12	counties, correct?
13	A. That is listed on page 9?
14	Q. Oh, I'm sorry. Jefferson County is one
15	of those counties, correct?
16	A. Correct.
17	Q. And, however, only the southern half of
18	Jefferson County where the city of Steubenville is
19	located is what's designated as nonattainment,
20	correct?
21	A. That is my understanding, yes.
22	Q. The northern part of Jefferson County
23	where the Sammis plant is located is not designated
24	nonattainment, correct?
25	A. That is my understanding.

4654 Now, your discussion on page 9 of the 1 Ο. 2 large source area designations is drawn from an EPA 3 fact sheet that you reviewed, correct? 4 Where are you referencing this, please? Α. 5 Ο. Well, let me just ask you if that's true. Is your understanding of the large source area 6 7 designations on page 9 in reference to this letter 8 that went out in March of 2015, your understanding of 9 that is drawn from an EPA fact sheet; is that true or 10 not? It's drawn from EPA information. I'm not 11 Α. 12 sure I would call it a fact sheet, but publicly 13 available information. 14 MR. LANG: Your Honor, may I approach? 15 EXAMINER ADDISON: You may. 16 MR. LANG: Your Honor, could I have 17 marked as Company Exhibit 68 this fact sheet that at 18 the top of it says it relates to "Area Designations 19 for the National Air Quality Standard for Sulfur 20 Dioxide Established in 2010?" 21 EXAMINER ADDISON: So marked. 22 (EXHIBIT MARKED FOR IDENTIFICATION.) 23 Ο. Professor Ferrey, if you could review 24 Company Exhibit 68, and let me know if you recognize 25 this as the EPA fact sheet that relates to the

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1	March 2015 EPA letters that you reference on page 9
2	of your testimony?
3	A. Okay. I've had a chance to look at this.
4	Q. Okay. And back to my question, do you
5	recognize this as USEPA fact sheet that describes the
6	March 2015 EPA letters that went out with regard to
7	large designation of large pollution sources?
8	A. Yes, I think that is true.
9	Q. And in your testimony on page 9, lines
10	10-11, you specifically state that the letter
11	involved counties in states that have large pollution
12	sources, and the EPA actually identified those large
13	pollution sources for the states based on EPA data,
14	correct?
15	A. Yes, they did.
16	Q. And let me make sure I get the number
17	right. There were 69 sources that were identified,
18	correct?
19	A. Well, having not counted them, I think
20	that's roughly correct, yes.
21	Q. And I'm referencing the second page of
22	the document under No. 2 AEP A has identified 69
23	sources to meet these criteria. So you would agree
24	EPA identified 69 sources.
25	A. What page are you on, again?

	4656
1	Q. On the second page under numeral 2, lower
2	case a.
3	A. And it says oh, I see where you are
4	now. Yes. Okay.
5	Q. So the only two sources identified in
6	Ohio are the Gavin plant and Zimmer plant, correct.
7	A. With regard to the 1-hour SO-2 standard,
8	that's the only two that have been identified.
9	Q. Do you understand that with the 1 with
10	regard to the 1-hour SO-2 standard, Ohio has a state
11	implementation plan addressing counties that are in
12	nonattainment for that particular standard?
13	A. Yes.
14	Q. However, you have not reviewed Ohio's
15	state implementation plan for the 1-hour SO-2
16	standard, correct?
17	A. Correct.
18	Q. And you do not know what Ohio's state
19	implementation plan for the 1-hour SO-2 standard
20	includes, correct?
21	A. Correct.
22	Q. And you do not know whether or not Ohio
23	has adopted an allowance system to implement CSAPR,
24	correct?
25	A. I believe it has.

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So is that something you've identified 1 Ο. 2 since your deposition? 3 I don't know whether I've identified it Α. 4 since my deposition. My general understanding is it 5 uses an allowance system, but I've not specifically focused on that. 6 7 Ο. And you have not studied the impact of 8 CSAPR on the Sammis plant specifically, correct? 9 Α. Correct. 10 Ο. So what you provide in your testimony is a discussion of hypothetical impacts that CSAPR might 11 12 have on fossil plants generally, correct? 13 Α. It's just a statement that it will have 14 an impact on a number of states and a number of 15 fossil plants, correct. 16 And you do not know whether CSAPR will Ο. 17 have any impact on the Sammis plant, correct. 18 I have not studied whether it will have Α. 19 any particular impact on the Sammis plant. 20 Q. So the answer to my question is correct, 21 you don't know. 22 Α. Correct, I've not made any independent assessment of that. 23 24 And you do not know whether the 1-hour Ο. 25 SO-2 National Ambient Air Quality standard will have

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1 any impact on the Sammis plant, correct? 2 Α. You're saying beyond any impact that it 3 may already have had; is that the nature of your 4 question? 5 Ο. If you can ask that again. I'm sorry. You're saying -- you're 6 Α. 7 asking me whether I know whether it will have an 8 impact beyond any financial impacts that have already been absorbed? 9 10 Ο. Any impact at all from today through the next 15 years. 11 12 Α. Well, if Sammis is already meeting the 13 standard, it may have already had a financial impact. 14 If for some reason it does not meet the standard, of 15 which I have no basis to assume that it does not, 16 then it could have an additional financial impact. 17 Professor Ferrey, do you remember being Q. 18 deposed on June 19th, 2015, correct? 19 I do. Α. 20 Q. And that would have been a telephonic 21 deposition where you were in Boston at the time. 22 Α. Correct. 23 Ο. And there was a court reporter there that 24 took down my questions and your answers and, among 25 other things, swore you in and you agreed to tell the

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4659 truth, correct? 1 2 Α. Correct. 3 MR. LANG: Your Honors, may we approach? 4 EXAMINER ADDISON: You may. 5 Q. Professor Ferrey, do you have a copy of your deposition transcript in front of you from the 6 7 June 19th, 2015, deposition? 8 Α. Yes, I do. 9 Ο. If I could ask you to turn to page 74. Are you there? 10 11 Yes, I am. Α. 12 Ο. Great. Now, on line 6, I'm going to read 13 along -- I'm going to read. If you can follow along, ROSE please. 14 On line 6 I asked the question: "And you 15 16 do not know whether the 1-hour SO2 NAAOS will have 17 any impact on Sammis itself, correct?" 18 And you answer: "Correct." 19 Did I read that correctly? 20 You did, and I think that is consistent Α. 21 with what I just said. 22 Now, you do not know whether the NOx Q. 23 National Ambient Air Quality Standard will have any 24 impact on the Sammis plant, correct. 25 Α. And as I asked you before, are you saying

4660 1 any additional impact? 2 Ο. If you could answer my question, please. 3 Okay. Let me try. Going forward from Α. 4 now, I have not made any assessments and do not know 5 whether there will be any additional impact from NOx regulation on Sammis. 6 7 Q. So the answer to my question is yes, you 8 do not know. 9 Going forward, I do not know. Α. 10 Q. While you're limiting it by saying "going forward," the answer, in fact, is you do not know, 11 12 correct? 13 MR. SAUER: Objection. 14 EXAMINER ADDISON: Overruled. 15 Α. You asked me just a few moments ago 16 regarding past expenditures at Sammis, and I said 17 that in response to your question I knew that there 18 had been substantial expenditures in the past to 19 control several criteria pollutants, and I have not 20 made a study and do not know going forward whether 21 there will be any additional impact or not. 22 MR. LANG: If I could have you turn to 23 your deposition, same page, 74, starting at line 9, I 24 asked you: 25 "And you do not know whether the NOx

4661 NAAQS will have any impact on the Sammis plant 1 2 itself, correct?" 3 And you answered: "Correct." 4 Did I read that correctly. 5 Α. You did, and I think that's consistent with what I just said. 6 7 Now, you do not know whether the Q. 8 eight-hour ozone NAAQS will have any impact on the 9 Sammis plant, correct? 10 I've done no specific evaluation, Α. I do not know whether it will have a future 11 correct. 12 impact on the Sammis plant. 13 Ο. And you do not have any facts -- switch 14 gears a little bit. Let's talk about particulate 15 matter. You do not have any facts suggesting that 16 the Sammis plant is not currently in compliance with 17 the PM 2.5 National Ambient Air Quality Standards, 18 correct? 19 And that is correct, and it's because I Α. 20 have not studied it, not because I've studied it and 21 reached a particular conclusion. 22 Now, with regard to when we refer to the Q. PM 2.5 standard, PM 2.5, is that EPA's shorthand way 23 24 of referring to fine particulate matter? 25 Α. It is, yes.

4662 1 Ο. Great. Now, on page 11 of your 2 testimony, lines 19 through 23, you say EPA is 3 concerned there are too few air sampling stations. 4 Would you agree that EPA expressed this concern as a 5 nationwide concern, not specific to Ohio? I do. It involves many states. 6 Α. 7 Q. And you do not know whether Ohio has too 8 few air sampling stations, correct? 9 Α. That is correct. 10 Q. In fact, you do not know how many monitors Ohio has, correct? 11 12 Α. I've not studied that, correct. 13 Ο. And you do not know how Ohio's number of 14 air monitors compares to other states, correct? Α. 15 Correct. 16 And you are not aware that the state of Ο. 17 Ohio currently monitors its Sammis plant particulate 18 matter emissions, correct? 19 Did you ask me whether it does or how it Α. 20 does? 21 Ο. Let me rephrase. Do you know whether the 22 state of Ohio currently monitors Sammis plant particulate matter emissions? 23 24 Specifically, I do not know whether it Α. 25 does or does not.

4663 1 Now, you do not have a basis for Ο. 2 suggesting that the area around the Sammis plant is 3 nonattainment for particulate matter or fine 4 particulate matter, correct? 5 Α. Correct. And, in fact, you're aware that EPA has 6 Ο. designated the area around Sammis as attainment for 7 8 fine particulate matter, correct? 9 I'd have to go back and check. Α. 10 Q. What would you check? I'd check EPA or the state implementation 11 Α. 12 My recollection is that it is not a plan. 13 nonattainment, so I think we're on the same page. 14 If I could have you turn to page 82 of Q. your deposition transcript, please. At line 2 of 15 16 page 82, I asked you: 17 "And are you aware that the area around 18 the Sammis plant is designated as attainment for 19 particulate matter?" 20 And you answered, "That is my 21 understanding." 22 Did I read that correctly? You did. 23 Α. 24 Ο. Great. 25 Α. And I believe, if I can just finish, I

4664 believe that's consistent with me saying I believe --1 2 (Discussion off the record.) 3 EXAMINER ADDISON: Sorry for the 4 interruption, Mr. Lang. 5 Can we have the last question and answer I just want to make sure we had the witness' 6 back. 7 full answer on the record. 8 (Record read.) 9 I think my answer was that it's not in Α. nonattainment. I indicated that I would have to 10 check as to whether, consequently, it's in attainment 11 12 or unclassified. I believe that was my full answer. 13 EXAMINER ADDISON: Thank you, Mr. Ferrey. 14 Please proceed. 15 Ο. (By Mr. Lang) I think we can agree some 16 of these environmental regulations promote the use of 17 double negatives. 18 I couldn't disagree with that. Α. 19 Well, done. Thank you. Q. 20 With regard to classifications, there's 21 three categories of classifications, right? 22 Α. Yes. 23 Ο. So you have attainment, you have 24 unclassified, and then you have nonattainment, 25 correct?

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1	A. Correct.
2	Q. Now, on the top of page 11 of your
3	testimony, you reference the area designations for
4	the 2012 Annual PM 2.5 standard, correct?
5	A. Yes, I do.
6	Q. And you state that for Ohio that includes
7	Cuyahoga and Lorain Counties, correct?
8	A. That is correct.
9	Q. Fair to say you do not know in which part
10	of Ohio those two counties are located.
11	A. I would really need a map to be specific
12	on that. I can tell you generally where they are.
13	Without great precision, my recollection is that
14	Cuyahoga, which is Cleveland, is going to be northern
15	Ohio, and I believe Lorain is to the west of that to
16	some degree, but I would need a map to actually be
17	able to specifically show you exactly.
18	Q. You do agree that those two counties are
19	not immediately proximate to the Sammis plant.
20	A. Yes, I do agree with that.
21	Q. And you do not know whether the
22	prevailing winds from the Sammis plants blow in the
23	direction of Cuyahoga and Lorain Counties, correct.
24	A. I don't know, but I would guess they
25	might even blow the opposite direction.

4666 1 Now, still on page 11, but at the bottom Ο. 2 on line 23, you make reference to the proposed data 3 requirements rule, and then going over on to page 12, 4 you state that it will require new monitors by 5 January 2017. Do you see that reference in your testimony? 6 7 Α. Yes. 8 Ο. And this is the proposed Data 9 Requirements Rule for the 1-hour SO-2 National 10 Ambient Air Quality Standards, correct? 11 That is correct. Α. 12 Q. And you reference this rule with respect 13 to the PM 2.5 NAAQS; however, you have now -- you 14 amended your testimony this morning to add the reference to SO-2, correct? 15 16 Α. I did, yes. 17 So the reference to SO-2 that you added Ο. 18 this morning, that's now a reference to the 1-hour SO-2 NAAQS, correct? 19 20 Α. Yes, it is, correct. 21 MR. LANG: Your Honor, if we could 22 approach and have a document marked as Company Exhibit 69. 23 24 EXAMINER ADDISON: You may approach, and 25 it will be so marked.

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1	(EXHIBIT MARKED FOR IDENTIFICATION.)
2	Q. Professor Ferrey, do you have in front of
3	you what has been marked as Company Exhibit 69? At
4	the top it says, "Fact Sheet, Proposed Data
5	Requirements Rule for the 1-Hour Sulfur Dioxide
6	Primary National Ambient Air Quality Standard or
7	NAAQS.
8	A. Yes, I do.
9	Q. And do you recognize this as the USEPA
10	fact sheet for the proposed Data Requirements Rule
11	that you discuss in your testimony starting at the
12	bottom of page 11 and going on to page 12?
13	A. Yes.
14	Q. With regard to your statement that the
15	EPA will require new monitors by January 2017, in
16	actuality, the proposal wants to give states the
17	flexibility to characterize air quality using either
18	monitors or modeling, correct?
19	A. Correct. States did have an option of
20	modeling or actually monitoring by 2017.
21	Q. And then if monitors are used, any new
22	designations would be based on three years of data,
23	correct?
24	A. The SO-2 standard, the one-hour standard
25	does have a three-year monitoring accumulation. So

1 it would be based on three years of data. 2 So the earliest you would have a Ο. nonattainment designation under this Data 3 4 Requirements Rule as a result of monitoring would be 5 2020, correct? Assuming that there are no other monitors 6 Α. 7 there to register, the additional monitors that would 8 be implemented would get data in 2017, 2018, 2019, so that would be approximately correct. It would be in 9 that 2019-'20 period when one would know on 10 11 designations. 12 Ο. On page 12, lines 8 and 9, you say, "The 13 EPA will monitor every source with the potential to 14 emit greater than 1,000 tons per year," and this morning you add to that "of SO-2 in certain areas," 15 16 correct? 17 Α. Correct. 18 So at the time you filed your testimony, Ο. 19 you did not know whether that was 1000 tons per year 20 of SO-2 or of particulate matter, correct? I'm trying to recall. That may or may 21 Α. 22 not have been correct. That may have been correct. 23 And at the time you had your deposition Ο. 24 taken, you couldn't remember whether that was 1,000 25 tons per year of SO-2 or particulate matter, correct?

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4669 I think that might have been true, yeah, 1 Α. during the deposition. 2 3 Now, what has been marked as Company Q. 4 Exhibit 69, if I can ask you to -- this is the fact 5 sheet for the proposed Data Requirements Rule for the one hour SO-2 standard. If I could ask you to look 6 7 at -- it would be the third bullet point that has the 8 three subparts under it showing Option 1, Option 2, 9 and Option 3; do you see that? 10 Α. T do. And what you have in your testimony is 11 Ο. 12 referring to the sources that emit greater than 13 1000 tons per year. That would be a reference to Option 1, correct? 14 It would be a reference to Option 1, 15 Α. 16 correct. 17 And Option 1 would relate to sources of Ο. 18 greater than 1,000 tons of SO-2 in metro areas with 19 population greater than 1 million, correct? 20 Α. Yes. 21 Ο. Now, when you say on page 12, lines 18 22 and 19 of your testimony, that the Data Requirements 23 Rule will be finalized in 2015, that has proven true, 24 it has been finalized, correct? 25 Α. I believe it was finalized in August of

4670 1 this year. 2 Ο. So a final version was issued on 3 August 10th of 2015; is that your memory? 4 Α. That's approximately correct, yes. 5 Ο. Have you read the final Data Requirements Rule? 6 7 I've probably not read it all the way Α. 8 through. I have looked at it. 9 Ο. Do you agree that the final Data 10 Requirements Rule requires states to characterize air 11 quality around sources that emit 2,000 tons per year 12 or more of SO-2? 13 Α. I would have to look at it again. 14 MR. LANG: Your Honors, may we approach? 15 EXAMINER ADDISON: You may. 16 MR. LANG: Your Honors, can I have marked 17 as Company Exhibit 70 the fact sheet for the final 18 Data Requirements Rule? 19 EXAMINER ADDISON: So marked. 20 (EXHIBIT MARKED FOR IDENTIFICATION.) 21 Ο. Professor Ferrey, if you could take a 22 moment to look at what has been marked as Company Exhibit 70, and if you can let us know whether you 23 24 recognize that as the USEPA Fact Sheet for the Final 25 Data Requirements Rule issued in August of 2015.

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1	A. Yes, I believe it is.
2	Q. Does this help you specifically in the
3	second bullet point remember that the final rule
4	applies to sources that emit 2,000 tons per year or
5	more of SO-2?
6	A. Yes.
7	Q. And the final rule also gives the Ohio
8	EPA and other agencies the flexibility to use either
9	modeling or monitoring, correct?
10	A. It does, yes.
11	Q. And to close the discussion on one point
12	we just talked about a little bit earlier, if you
13	look at page 2, the fourth bullet point down relating
14	to using monitors, you see that if monitors are used,
15	the data would be collected for calendar years 2017
16	through 2019.
17	A. Correct, and I believe that's similar to
18	an earlier answer I gave to you.
19	Q. Absolutely. And then so you would agree
20	based on that, that the earliest a designation could
21	be made based on monitoring would be sometime in
22	2020?
23	A. That's correct, I suppose we would know
24	at the end 2019 what the data is, but it would be
25	2020.

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4672 Fair to say you do not know whether the 1 Ο. 2 final Data Requirements Rule will have any 3 applicability to the Sammis plant? 4 Α. I do not know whether it will or will 5 not, correct. On page 12 of your testimony, lines 13 to 6 Ο. 7 15, you make reference there to Reasonably Achievable 8 Control Technology. Fair to say you do not know 9 whether the Sammis plant has Reasonably Achievable Control Technology? 10 I do not specifically know. I would 11 Α. 12 assume the states that would require that, but I have 13 not looked specifically at Sammis. 14 Now, I'm going to move to page 13 where Q. 15 you start your discussion of ozone regulations. With 16 regard to the Sammis plant and the area around the 17 Sammis plant, you do not know whether that area was a 18 nonattainment area for ozone, correct? 19 I have not looked at that, no. Α. 20 Ο. Now, transportation, such as cars and 21 trucks, is a significant source of ozone, correct? 22 Yes, correct, of precursors of ozone. Α. 23 Ο. And on page 13 of your testimony, lines 24 18 through 20, you list counties in Ohio that are 25 nonattainment for ozone, correct?

	4673
1	A. Yes.
2	Q. And I'll get it right this time,
3	Jefferson County is not one of those counties,
4	correct?
5	A. Correct.
6	Q. Now, all of these counties, your
7	understanding is, are metro areas of Ohio with a lot
8	of car and truck emissions, correct?
9	A. Again, I would need to get a map to be
10	specific, but I know that several of them are, yes.
11	Q. And you do understand that Sammis, the
12	Sammis plant, is not located in a metro area of Ohio,
13	correct?
14	A. I do understand that, correct.
15	Q. And you do not know if any of the
16	counties listed on page 13 are downwind of Sammis,
17	correct?
18	A. I would suppose that they are not
19	downwind of Sammis, but I have not specifically
20	studied that, no.
21	Q. Now, the precursors for ozone are NOx and
22	volatile organic compounds, correct?
23	A. Correct.
24	Q. And a precursor is what?
25	A. A precursor is a chemical that reacts in

4674 1 the atmosphere to form the target chemical. 2 Ο. So in addition to auto emissions, ozone 3 can be -- ozone can result from the precursors that 4 are emitted from such things as lawn mowers and 5 outdoor grills, correct? Those would produce volatile organic 6 Α. 7 compounds, yes. 8 Ο. And also VOCs, or volatile organic 9 compounds, in things like solvents and paints, 10 correct? 11 They can, that's correct. Α. 12 Q. So you understand there are many existing 13 programs to limit ozone precursors, including 14 volatile organic compounds in solvents and paints, correct? 15 16 Α. Correct. 17 There's also programs to limit ozone Q. 18 precursors that are in auto emissions, correct? 19 Α. Correct. 20 And as auto emissions are reduced and Ο. 21 VOCs are reduced, ozone concentrations are also 22 reduced, correct? 23 Α. Yes, correct. As precursors are 24 diminished, the ozone production would be diminished. 25 Q. Now, are you aware of the corporate

average fuel economy or CAFE standards for 1 2 automobiles? 3 Α. T am. 4 Ο. And those CAFE standards have been 5 reducing ozone levels across the U.S., correct? From vehicles, correct. 6 Α. 7 Ο. And there are also new CAFE standards 8 running out to 2025 that will have the effect of 9 continuing to reduce emissions of ozone precursors, 10 correct? Let me give you a qualified yes, in that 11 Α. 12 you are correct that they will reduce emissions per 13 mile driven. I suppose the alternate question is 14 with oil prices coming down, the reports are that people are buying larger vehicles and perhaps tending 15 16 to drive more, so there are various factors that 17 would. 18 Yes, the CAFE standards per mile driven, 19 if you have a new vehicle and if it's compliant, I 20 suppose not a Volkswagen, it will reduce in the 21 future the standard per mile driven. 22 And the federal government has also Q. issued standards similar to the CAFE standards for 23 24 medium- and heavy-duty trucks; is that correct? 25 Α. Correct.

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4676 1 Ο. Now, you understand that the 2 nonattainment designations specifically for the ozone 3 NAAQS are based on three years of data, correct? 4 Α. That is correct. It's an eight-hour 5 standard using three years of data. With regard to the nonattainment 6 Ο. 7 designations that you reference on page 13 of your 8 testimony, you do not know when those designations 9 were made; is that correct? 10 Α. No, I have not specifically gone back to 11 look at the year they were designated. 12 And as a result, you do not know what Q. 13 three-year period of data was used to make the 14 nonattainment designation, correct? 15 Α. Correct. 16 Now, on page 14 of your testimony, you Ο. 17 state that the EPA is considering a change to the 18 eight-hour ozone standard, correct? 19 Α. Yes. 20 Q. And you note that the EPA staff 21 recommended a standard in the range of 65 to 70 parts 22 per billion, correct? That is correct. 23 Α. 24 And you also know as of October 1, that Ο. 25 the EPA has announced that the new eight-hour -- has

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1	announced the new eight-hour ozone standard, correct?
2	A. Correct.
3	Q. And the new eight-hour ozone standard
4	announced is 70 parts per billion, correct?
5	A. I believe, yes.
6	Q. Now, as we had discussed, as a result of
7	multiple federal and state programs, ozone levels
8	have been trending downward, correct?
9	A. Ozone levels have been trending downward,
10	yes.
11	Q. And EPA has projected that a vast
12	majority of counties in the U.S. will meet the
13	standard of 70 parts per billion without any
14	additional action because of the existing programs
15	already in place, correct?
16	A. The EPA has projected that a number of
17	areas will be able to get down to 70 parts per
18	billion.
19	Q. Well, and, in fact, based on an existing
20	measurements, a number of areas are already under 70
21	parts per billion, correct?
22	A. There are areas that are under 70 and
23	areas that are not, yes.
24	Q. Professor Ferrey, have you reviewed the
25	USEPA fact sheet on the final ozone standard that was

4678 issued October 1? 1 2 Α. I have not. 3 We'll move on. Now that the EPA has set Ο. 4 a new standard for eight-hour ozone, do you 5 understand that there's a process that the states 6 follow regarding that that would again involve a 7 state implementation plan? 8 Α. Yes, that's correct. 9 And would you also believe there's a Ο. 10 possibility of litigation that could delay the impact of the new ozone standard? 11 12 Α. There's always a possibility of 13 litigation on revised and lowered standards, yes. 14 Do you agree it will take a few years for Q. 15 area designations to be updated based on three years 16 of data and then for the state implementation plans 17 to be drafted? 18 It will take some time, yes. Α. 19 Would you agree that three years of data Q. 20 that will be used for eight-hour ozone standard are 21 the years 2014 through 2016? 22 Α. That sounds correct, yes. 23 Ο. Now, you have not made any determination 24 that a revised eight-hour ozone standard will have 25 any effect on the Sammis plant or on Jefferson

4679 County, Ohio, correct? 1 2 Α. That is correct. 3 Moving to page 16 of your testimony where Ο. 4 you refer to the Mercury and Air Toxics or MATS, I 5 just have a couple questions about that. You do not have any information that the Sammis plant is not 6 7 currently in compliance with MATS, correct? 8 Α. Correct. 9 Ο. And you have no reason to believe that 10 the Sammis plant will have to incur additional costs to comply with MATS, correct? 11 12 Α. I have no reason to believe that it will 13 or won't, yes, correct. 14 And you have not evaluated whether the Q. 15 MATS regulations could affect the frequency of 16 dispatch of the Sammis plant, correct. 17 Α. Correct. 18 Now, the Michigan versus EPA decision Ο. 19 that you reference in your testimony, that was issued 20 in late June of this year, is that right? 21 Α. Yes, at the end of the term. 22 And the decision was, very shorthand and Q. 23 high level, that the EPA had to consider the cost 24 impact of the MATS regulations. 25 Α. Yes, that's a summary of the basis of it

being overturned and remanded. 1 2 Now, is it your understanding that the Q. 3 MATS regulation is still in effect or not? 4 Α. I believe it has not been vacated. 5 Ο. Now, I'll take you back to page 35 of 6 your testimony. Here you have a discussion, I believe it's around line 14 --7 8 Yes. Α. 9 Ο. -- that you state that the price of 10 natural gas has dropped, among other commodities, 11 correct? 12 Α. Yes, I do. 13 Ο. And you're not offering an opinion that 14 the price of natural gas will not increase over the 15 next 15 years, correct? 16 I'm not offering an opinion that it will Α. 17 not increase over the next 15 years. 18 And you're not forecasting energy prices Q. 19 for any period in the future, correct? 20 That is correct. Α. 21 Ο. Now, if I can swing you back to page 3 of 22 your testimony, please, at the bottom of page 3, you have a discussion about waiting until, you refer to, 23 24 "regulations, plans, and effects of these several 25 pending regulations are known and manifest in

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subsequent state and federal decisions." 1 2 So I wanted to ask you in your view, the 3 regulations, plans, and effects won't be known and 4 manifest until sometime between 2020 and 2022 with 5 respect to the Clean Power Plan, correct? 6 With respect to the Clean Power Plan, I Α. 7 think we will have a reasonable idea of what state 8 plans are within three years when they are filed in 9 2018. At that point, things will start to move a 10 little bit. Litigation, as you mentioned, may be 11 still going or not. But, yeah, the first requirements on the states has now been moved back 12 13 from 2020 to 2022. The plans will be required by 14 2018. So it will be somewhere in that period from 15 2018 to 2021 when we would see the final shape. 16 And is it correct on page 3 where you Ο. 17 refer to "subsequent state decisions," is that a 18 reference to the state implementation plans that are 19 required for the National Ambient Air Ouality 20 Standards and for the Clean Power Plan? 21 Α. Yes, it is, and specifically the Clean 22 Power Plan. 23 So with respect to the Clean Power Plan, Ο. 24 state implementation plans may not be final until 25 September of 2018, is that right?

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4682 1 Α. The plans may not be filed with EPA until 2 2018, correct. 3 And then certainly the impact of those Ο. 4 plans won't be known for years after that, correct? 5 Α. Well, assuming that there is no challenge to the specific state plan, per se, things will start 6 7 to go in motion to meet the standards that become 8 effective in 2020 now with the two-year delay, 2022, I'm certain. 9 10 Thank you. And do you also believe that Ο. we'll likely see years of litigation involving the 11 12 Clean Power Plan? 13 Α. I think it is fair to say that we will 14 see years, plural, of litigation. I'm not sure it will go to the end of the 2021 period that you're 15 16 describing, but I think we will probably see at least 17 a couple of years of that, yes. 18 MR. LANG: Okay. Could I have one 19 moment, your Honor? 20 EXAMINER ADDISON: You may. 21 MR. LANG: That concludes my cross. 22 Thank you, your Honor. 23 And thank you, Professor Ferrey. 24 EXAMINER ADDISON: Thank you, Mr. Lang. 25 Mr. Kurtz.

4683 1 MR. KURTZ: Thank you, your Honor. Just 2 ten minutes or so. 3 4 CROSS-EXAMINATION 5 By Mr. Kurtz: Good afternoon, Professor Ferrey. 6 Ο. 7 Α. Good afternoon, sir. 8 Ο. Let me talk about the Clean Power Plan. 9 Α. Okay. 10 The final rule was issued in August of Q. this year, correct? 11 12 Α. Correct. 13 Ο. So it's a state-by-state compliance 14 program. It is a state-by-state compliance 15 Α. 16 program, correct. 17 And so what the EPA did is it took CO-2 Ο. 18 emissions from 2012 baseline year and then made 19 emission reduction requirements off of that; is that 20 correct? 21 Α. Yes. 22 Okay. And there's two forms of Q. 23 compliance. A state can adopt a rate-based approach, 24 which is pounds of CO-2 per megawatt-hour, or 25 mass-based approach, which is a gross amount of tons

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1
     of CO-2 emitted per year.
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2 That is one of numerous options that Α. 3 states, yes, in terms of various choices they can 4 make.

5 Ο. Do you know of any state that's going to go the -- that's talking about the rate-based 6 7 approach?

8 Α. Well, I don't think we know yet. There is -- I quess we should say talk among various folks 9 that think a mass-based approach might be a more 10 cost-effective way to go. But these are -- certainly 11 12 a rate-based approach plant by plant has some 13 advantages and disadvantages.

14 Well, let's go for an example on the Q. 15 rate-based approach. If your state is comprised of 16 100 percent coal-fired generation and relatively the 17 same heat rate, relatively the same heat input of the 18 coal that goes into the plant, you'll have a uniform 19 mass -- excuse me, uniform rate, 2,000 pounds per 20 megawatt-hour, roughly, or one ton per megawatt-hour? 21

Α. Roughly.

22 So if you've got a uniform starting Ο. 23 point, if you go with a rate-based approach, then the 24 coal plant requirements that occur in your state 25 don't really help you because you don't change the

1 average.

A. That's correct, you would not change theaverage.

Q. Do you go with a mass-based approach, the
coal plant retirements reduce the actual amount of
tons admitted, so that's a benefit, correct?

A. Yeah. I know you're assuming, again,
it's 100 percent coal plants, which characterize
somewhat of an extreme situation.

Q. I wanted to use it as an example. Let's go with the mass-based approach, because I think that's simpler. Probably most states will go with that. That's what the FIP is, isn't it, the Federal Implementation Plan, a form of mass-based approach?

A. The FIP, if it becomes necessary for the federal government to implement it, they would come back with a rate-based approach in the FIP.

Q. A rate-based approach or a mass-based?
A. I thought they were coming back with a
rate-based approach.

Q. Cap and trade, mass-based approach.
A. Well, cap and trade would be mass-based.
Q. Right. Okay. Let's stick with the
mass-based approach. Do you know how many tons of
CO-2 was in Ohio's baseline 2012?

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1	A. I believe, subject to check, that their
2	baseline was roughly 1,900.
3	Q. That's the rate. The mass?
4	A. Oh, the mass? I do not know.
5	Q. 102 million tons?
6	A. Okay. I haven't looked at that.
7	MR. MENDOZA: Objection. I just object
8	to Mr. Kurtz testifying.
9	MR. KURTZ: I didn't think I was.
10	Q. Okay. So the 2012 baseline was about 102
11	million tons of CO-2 total, professor; is that your
12	recollection?
13	A. I don't specifically recollect that.
14	Q. Do you know what the percent reduction
15	Ohio needs to get achieved by 2030, the final year of
16	the phase-in?
17	A. Subject to check, my recollection was
18	that it was approximately 37.5, 37.4 percent.
19	Q. All right. This is clear, isn't it, that
20	as coal plants require in a state, the amount of CO-2 $$
21	emitted as coal plants retire after the 2012
22	baseline, the amount of CO-2 emitted under a
23	mass-based, cap and trade approach, goes down
24	naturally. Would you agree with that?
25	A. It does go down. I suppose it depends on

4687 1 what, if anything, it's replaced by in the state or 2 not. 3 That's a 111(b) issue. Let's talk about Ο. 4 that later. 5 Α. Okay. But the coal plant retirement, there's 6 Ο. 7 been a lot of evidence in this record, do you know, of the significant amount of coal plant retirements 8 that are going to occur -- that have occurred since 9 2012 and that will occur before 2022, the first year 10 of compliance? 11 There have been a significant number of 12 Α. 13 coal plant retirements recently, and there are, at 14 least, projections that more are coming. So as the state of Ohio retires coal 15 Ο. 16 plants, it is complying with the mass-based approach 17 under the Clean Power Plan naturally; do you agree? 18 Under a mass-based approach, there would Α. 19 be fewer tons of power plant CO-2 emissions if 20 coal-fired power plants ceased operating, and there 21 was nothing else particularly adding to it, yes, 22 under your assumption. 23 Ο. So let's just use an extreme example. Ιf 24 Sammis was the only power plant operating in the 25 state of Ohio that was in the 2012 baseline, there

4688 would be no cost of compliance. The state would 1 2 comply, just by virtue of everything else that 3 retired. Would you agree with that? 4 I somewhat lost your question there. Α. 5 Could vou --I was trying to make an extreme example. 6 Ο. 7 If Sammis was the only plant that was in the 2012 8 baseline, the only fossil generation in the 2012 baseline --9 10 Α. Okay. -- that was still operating, then the 11 Ο. 12 state would be in compliance, and there would be no 13 cost to Sammis. It would just be by virtue of everything else is gone. Would you agree -- I know 14 15 it's an extreme example, but would you agree --16 So you're saying -- what I'm having Α. 17 trouble understanding, you're saying there were other 18 plants, and if those other plants closed leaving Sammis? Is that --19 20 Q. Yes. 21 Α. Okay. I'm sorry. I didn't quite 22 understand that. Yes, if other plants were to 23 retire, the remaining plants would be able to absorb 24 some of the quotient of mass-based emissions. 25 Q. The only sort of question is whether or

not new gas -- first of all, you can't build a new 1 2 coal plant under the existing EPA rules, as a 3 practical matter; would you agree? 4 Α. You're going back to 111(b) that you 5 mentioned a minute ago. But the standard in 111(b) 6 for steam-fired coal plants is generally assumed to be somewhat at least restrictive or prohibitive of 7 8 new coal plants as opposed to natural gas plants. 9 Ο. Right. You would have to have some form 10 of carbon sequestration to build a new coal plant under the 111(b) rules, correct? 11 12 Α. I think that's correct, yes. 13 Ο. So given the technology, no new coal 14 plants can be built as a practical matter? Well, I'm not sure I know that none can 15 Α. 16 be built as a practical matter. It certainly 17 suggests that plants could be repowered with 18 different fuels that are at existing plants, if gas were available or other fossil fuels were available. 19 20 Q. But new coal, not repowering old coal 21 with gas. 22 Α. I'm not sure that nothing could be built, 23 because there are possibilities to try to sequester 24 coal to get down to a relatively restrictive 25 standard, but I think it is projected to be unlikely

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4690 that new coal plants will be built. 1 2 Let's talk about new gas, because that's Q. 3 really what we're seeing in Ohio, right? 4 Α. Yes. 5 Ο. New combined cycle gas units? 6 Α. Yes. 7 Ο. If a combined cycle gas unit was under 8 construction in 2012, it clearly counts, its 9 emissions count, under the mass-based approach, correct? 10 11 Α. Yes. 12 Q. Now, if a new plant is built, 13 construction begins after the 2012 baseline, there's 14 a question, isn't there, under the Clean Power Plan rule as to whether or not those units would be 15 16 treated under 111(d), existing fossil units, or 17 111(b), new units? 18 Yes. There's an option for states either Α. 19 to include new power plants in the mass, if you will, 20 or to exclude them. So states have that option state 21 by state in each state. 22 Why would Ohio ever include those Q. 23 emissions if it went with a mass-based approach if vou could exclude them and deal with them under 24 25 111(b)? Those emissions wouldn't even count,

1 correct?

2	A. Those emissions would not count in terms
3	of the Clean Power Plan, but Ohio has one of the
4	higher limits; so, therefore, if there are power
5	plants that come in that are relatively low CO-2
6	emitting facilities, they have tremendous advantage
7	to earn credits or some sort of benefit by coming
8	under a relatively high standard, which Ohio has.
9	This will be under the Clean Power
10	Plan and depending upon what other states decide to
11	do, there are 13 states in PJM, a number of states in
12	MISO and Ohio could end up being a place that becomes
13	extremely attractive for new constructed combined
14	cycle plants that get well under the threshold.
15	Q. I understand that answer if Ohio adopted
16	a rate-based approach, because a combined cycle would
17	reduce the average CO-2 emitted per megawatt-hour.
18	A. Right.
19	Q. But I don't see that at all under a
20	mass-based approach. Why would the state ever, say,
21	count new gas units under a mass-based approach if
22	you have an option not to?
23	A. Well, I mean, that's up to each state,
24	and we have a number of states, and the uncertainty I
25	think is that Ohio is in a multi-state market with

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1	PJM. It borders states that are in another MISO
2	market, and there are very different decisions that
3	states can make individually or they can combine
4	regionally. If they combine regionally, I agree a
5	mass-based approach is the probably a mass-based
6	approach is the only practical way.
7	Q. So if by virtue of the retirement of the
8	existing coal power plants, the number of CO-2
9	emissions go down naturally, and if Ohio opts for
10	treating new combined cycle under 111(b) so that
11	those emissions don't count in the allowances that
12	were allocated, it could be that Clean Power Plan
13	compliance is not incredibly costly or difficult for
14	Ohio; would you agree with that?
15	A. It could or could not be, yes, I agree.
16	There's a possibility there, depending on how many
17	other retirements there are. Again, the standard
18	changes from 2022. It ramps down towards the 2030
19	amount that we were discussing, so Ohio slides from a
20	pounds-per-megawatt limit initially, if memory serves
21	me right, of 1,501 pounds per megawatt-hour down to
22	1,191, which is not an insubstantial decrease.
23	Q. And that's, again, the, rate-based
24	approach. If we go with a mass-based approach, we go
25	from about 102 million in the baseline to 73 million,

4693 73.8 million, in the final year of compliance, 2030, 1 2 with a ramping beginning in 2022. 3 Correct, approximately. Again, I haven't Α. 4 done the numbers. So if there are a lot of coal 5 Ο. retirements, the remaining coal plants standing could 6 be in a pretty -- or a position that isn't that 7 8 difficult to comply? 9 Α. It is possible if there is a significant 10 amount of retirements reducing the CO-2 emissions commensurate with that 37 percent decrease that 11 12 Ohio's required to meet, which, again, is not 13 insubstantial. 14 MR. KURTZ: Thank you, Your Honor. No 15 more questions. 16 EXAMINER ADDISON: Thank you, Mr. Kurtz. 17 Mr. McNamee. 18 MR. MCNAMEE: No questions. 19 EXAMINER ADDISON: Any redirect, 20 Mr. Sauer? 21 MR. SAUER: May we have a couple minutes, 22 your Honor? 23 EXAMINER ADDISON: You may. 24 Let's go off the record. 25 (Recess taken.)

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1	EXAMINER ADDISON: Let's go back on the
2	record.
3	Mr. Sauer.
4	MR. SAUER: Thank you, your Honor.
5	
6	REDIRECT EXAMINATION
7	By Mr. Sauer:
8	Q. Professor Ferrey, you were asked some
9	questions today regarding analyses you may have
10	performed regarding compliance with I'll rephrase.
11	Professor Ferrey, you were asked some
12	questions this morning about your analysis of Sammis'
13	compliance with various environmental regulations.
14	Is it important to your conclusions whether you have
15	individually analyzed plant environmental compliance?
16	A. I don't believe that it's important
17	whether I've looked at individual plants. There has
18	been testimony in the record from company witnesses
19	as to the compliance with existing environmental
20	regulations. And as Mr. Lang and I were talking
21	about, it really appears that we are talking about
22	two distinct periods in the proposed RRS rider period
23	of 15 years from 2016 to 2031.
24	As Mr. Lang's question suggested, there's
25	a period of, perhaps, five years during which there

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1	will be data taken, requirements assessed as to
2	whether plants are in compliance or not as data is
3	gathered, and certainly in that period, the Clean
4	Power Plan has no direct effect, as we've looked at.
5	So we can think I think of those first
6	five years as period one, and I suppose the question
7	for the Commission, as I see it under the RRS and the
8	proposed term sheet for the PPA, is is this something
9	that should be approved for the 15 years or for the
10	first period.
11	In that first period, I guess the
12	question to me is have the plants with all the
13	significant environmental improvements that they have
14	made, are they able to operate in the PJM market cost
15	effectively.
16	There has been data and I know some of
17	it is confidential, so I will not specifically speak
18	about it. But there has been testimony about by the
19	company as to the positive or negative earnings
20	during recent years coming in. And we have
21	Mr. Moul's testimony, which, along with Mr. Evans'
22	testimony I referenced in my own personal testimony
23	which indicates that he thinks not only Sammis and
24	Davis-Besse but also the OVEC plant future is
25	uncertain without the proposal before the Commission.

4696 1 So looking backwards as to profit and 2 loss and looking forward to Mr. Moul's testimony in 3 this next five-year period, I believe the question is 4 does the RRS offer a proposal that should be approved 5 and go forward. Mr. Moul's testimony, as I 6 indicated, I see as somewhat different than 7 Mr. Evans' testimony in terms of the state of the 8 economic impacts of the plants. 9 There's a second period, which I think of 10 as the last ten years of the proposed period, which would be roughly 2021 to 2031. And what changes then 11 12 is there is the Clean Power Plan, and Ohio and every 13 other state and every other region and FirstEnergy in 14 the various states in which it operates will need to comply across the board with however that is 15 16 determined by the states. 17 And I believe that is something that is 18 extremely difficult to understand in full because of 19 so many states, so many regions, and, as I mentioned 20 earlier to Mr. Kurtz's questions, the number of 21 choices that states have. 22 One of the things that I was struck by is I've seen comments from one of the companies' 23 24 spokespeople, Stephanie Walton, who has stated on a 25 couple of occasions that, in her view or the

1	companies' view, the future impacts of the Clean
2	Power Plan are indeterminate for the next three
3	years, and I would agree with that. I think my
4	testimony is that certainly for the next three years
5	and, perhaps, a year or two longer, Mr. Lang
6	mentioned the possibility of litigation which is now
7	starting, that it is extremely difficult to know the
8	impact that will be folded into the RRS and through
9	the eventual PPA.
10	So I think the question is in that first
11	period, are we optimistic in the next five years this
12	will be cost effective based on past data and
13	Mr. Moul's or other testimony before the Commission?
14	And in the second period of the last ten years of
15	this, is there any confidence to make a decision,
16	unless there's some banding in the agreements as to
17	the price or sharing of risk or other provisions.
18	And I've mentioned that I don't think severability is
19	particularly is particularly a lone salvation.
20	MR. LANG: Your Honor.
21	EXAMINER ADDISON: Mr. Lang.
22	MR. LANG: I'd move to strike his answer.
23	I know it was extremely long. But I'd move to strike
24	his answer when he starts talking about other company
25	witnesses and his review of their testimony and the

impact of that on his conclusions, particularly when 1 2 he starts discussing Company Witness Moul's 3 testimony. 4 That's beyond the scope of anything that 5 we discussed. It's improper to add in this proceeding at this time on redirect, particularly, 6 7 you know, after talking about his review of the 8 company witness testimony at some point. He then 9 went on to talk about the review of a company 10 spokesperson. So I would move to strike. I think the 11 12 first few sentences of his answer can stand as 13 responsive to the question that Mr. Sauer asked him. 14 I think the rest should be stricken as beyond the 15 scope of redirect and violating, in addition, Rules 16 401 and 403 as being not probative to the issues 17 before the Commission. 18 EXAMINER ADDISON: Mr. Sauer, response. 19 MR. SAUER: He was responding to the 20 question, your Honor, and provided background that he 21 relied upon in preparing his testimony and the other 22 issues that he raised that I asked him. 23 EXAMINER PRICE: May I have the question 24 back, please. 25 (Record read.)

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1	EXAMINER ADDISON: At this time, we will
2	grant in part the motion to strike regarding the
3	company's spokesperson. I believe the sentence
4	beginning with "One of the things I was struck by"
5	and ending "I would agree with that" will be struck.
6	MR. SAUER: Thank you, your Honor.
7	Q. (By Mr. Sauer) Professor Ferrey, could
8	you turn to FE Exhibit No. 68.
9	A. Yes, I believe I have that in front of
10	me.
11	Q. On page 1 of 4, in Indiana, Jefferson
12	County, do you see Clifty Creek?
13	A. Yes, I do see that.
14	Q. What are the implications of Clifty Creek
15	appearing on this schedule as one of the 69 sources?
16	A. It seems to put this EPA seems to put
17	this in a different category than the Sammis plant in
18	terms of required additional modeling or monitoring
19	for the sulfur dioxide one-hour standard in terms of
20	determining whether there's still attainment.
21	So while agreeing with the former
22	questions regarding Sammis, Clifty Creek may be in a
23	different situation going forward in terms of that
24	area and monitoring or modeling.
25	Q. You received some questions regarding

Sammis' compliance with various environmental 1 2 regulations. Are you aware that there are seven 3 units at the Sammis power plant? 4 Α. Yes, I'm aware that there are seven units 5 and there are differences. How do those differences in the units 6 Ο. 7 impact their compliance? 8 MR. LANG: Objection, your Honor. 9 EXAMINER ADDISON: Grounds? 10 MR. LANG: Again, it's beyond the scope of my questioning and also foundation. There's 11 12 been -- I specifically asked the witness whether he 13 had any experience with regard to plant operations, 14 whether he had any knowledge of the specific characteristics of the Sammis plant. He does not. 15 16 So coming in again on redirect and 17 talking about things that he has no knowledge of is 18 not only beyond the proper scope of what he can be 19 asked on redirect, it's asking him to contradict his 20 earlier testimony that he has no knowledge of 21 specific Sammis plant operations. 22 EXAMINER ADDISON: Mr. Sauer? 23 MR. SAUER: I don't recall him being 24 asked specifically about the plant operations or how 25 the plant compliance would be attained, in

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particular, given the various units that are at the 1 2 Sammis plant. 3 EXAMINER ADDISON: I'm going to sustain 4 the objection. 5 Ο. Professor Ferrey, you were asked some 6 questions regarding Clean Power Plan compliance and 7 compliance by Ohio. What are the concerns regarding 8 identifying what the compliance plans for Ohio would be at this point in time? 9 10 Α. Well, the compliance plans for Ohio are 11 really affected by all the other states in regions in 12 which it participates, so it is not only what Ohio 13 decides, it's what the neighboring states decide. 14 So as a member of PJM, there are a total 15 of 13 states. As a member of -- as a neighbor of 16 some MISO states, many of which are regulated 17 differently at the retail level than Ohio, there are 18 other states. There are a variety of factors that 19 states can choose from, following to some of 20 Mr. Kurtz's questions, in deciding how to implement 21 the Clean Power Plan. 22 So as Mr. Kurtz and I discussed, there's 23 a decision as to whether new projects will be within 24 the Clean Power Plan or will not be in the Clean 25 Power Plan, and that's going to be independently made

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by the 13 PJM states in, let's say, a handful of neighboring MISO states.

There are determinations as to whether a rate-based or a mass-based form of regulation will be implemented independently in each of those states. There are regional implications because, obviously, FirstEnergy is a regional company. Power is traded regionally, and there are interesting issues as to how states will try to overlap or not overlap.

10 States also in another regard can give early credits, if they wish to, for renewables, for 11 12 principally solar and wind, that are installed 13 between 2018 and 2021. That is somewhat like a --14 it's not equivalent to, but it would have similar impact to renewable energy credits at the state level 15 16 if states elect to give additional credit value to 17 that.

Obviously, there are differences between plants that would be merchant plants in some states and regulated plants in other states. There are also issues as to whether or not trading would be allowed between states of credits. So that's probably a half dozen or so different significant choices that each state makes.

If

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If we have 13 PJM states and another

handful of neighboring MISO states, we have 20 1 2 states, each of which can make a half dozen 3 fundamental decisions that directly or indirectly affect the power market in which Ohio Power and 4 5 FirstEnergy power is traded. So if you take 20 states to the sixth 6 7 power -- I'm not sure I'm doing the math right, but 8 there obviously are a large number of decisions that 9 will complicate that second period of time which, 10 let's say, approximately the 2021 to 2031 period of the RRS, the second two-thirds of the RRS, which 11 12 create great uncertainty. 13 If nothing else, I think there needs to 14 be some ways to try to bound or limit that 15 uncertainty in a way that the Commission decides is 16 appropriate. 17 MR. SAUER: Thank you, professor. I have 18 no further questions. 19 EXAMINER ADDISON: Thank you, Mr. Sauer. 20 Ms. Bojko, any questions? 21 MS. BOJKO: No questions. 22 EXAMINER ADDISON: Mr. Mendoza? 23 MR. MENDOZA: No questions. 24 EXAMINER ADDISON: Mr. Lang, any 25 questions?

4704 1 MR. LANG: Hold on, please. 2 No recross, your Honor. 3 EXAMINER PRICE: Mr. Kurtz? 4 MR. KURTZ: Just one thing. 5 RECROSS-EXAMINATION 6 7 By Mr. Kurtz: 8 Professor, one thing I don't quite agree 0. with is this choice that you say states would have as 9 10 to whether to include the new natural gas plants in the 111(d) or 111(b). 11 12 For a new gas plant, isn't the 111(b) 13 requirement 1,100 pounds of CO-2 per megawatt-hour? For some plants, it's 1,100 pounds, and 14 Α. for some plants, it's 1,000 pounds. 15 16 So for a new combined cycle with a 7,000 Ο. 17 heat rate, they have no problem meeting that, do 18 they? 19 They should be able to meet that, I would Α. 20 think. 21 Ο. Right. So if they can meet the 111(b), 22 no problem in the natural gas combined cycle, why 23 would a state, any state, ever want to include them 24 in the 111(d) and have them increase the amount of 25 tons that will go into your mass-based account?

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1	A. Well, I suppose and I can't speak for
2	the states, of course, and it's too new to really
3	know what states will do. But the assumption is that
4	the plant would only be well, my assumption is the
5	plant would only be built if it thought it could
6	operate cost effectively at what it projected to be
7	trading rates in PJM, or wherever it is, whatever
8	MISO or other regulatory system it's in.
9	And if a plant came in, one assumes that
10	it would displace perhaps, depending obviously on the
11	price of natural gas, which has been relatively low
12	with the Henry Hub and at various markets recently,
13	and the idea is it would displace some of the higher
14	heat rate plants. If it does that, that plant coming
15	in by itself might displace a larger fraction of
16	units.
17	Q. Well, if the combined cycle is a 111(b)
18	unit, it doesn't need allowances. All it needs to do
19	is meet the 1,000 or 1,100 tons or pounds of CO-2 per
20	megawatt-hour. It would not even be covered under
21	the cap and trade program.
22	A. You're saying if they did not include it?
23	Q. Yes.
24	A. If they did not include it, but that's an
25	option that each state has, whether to include it or

not. If a state went to a credit system, it's possible that that new combined cycle plant would even get credits. It would get credits, perhaps, at an average rate that would be above what its actual emissions were. That would give it tradeable credits if the state allowed it to trade. So that would actually be a way that some states may or may not elect to incentivize certain new construction.

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9 Q. Well, I don't want to belabor it. My 10 understanding of the rule from all the utilities I've 11 spoken to is that it's just not clear how new gas 12 units are going to be treated, and that's one of the 13 big uncertainties, not that states have an option. 14 Having the option would be great. Does that resonate 15 with you at all?

MS. BOJKO: Objection, your Honor. EXAMINER ADDISON: Grounds, Ms. Bojko? MS. BOJKO: First of all, it's hearsay because he's saying from what he heard from utilities and then he's testifying. MR. KURTZ: I'll rephrase.

22 Q. Do you know if the rule is clear on this 23 issue of how new gas units will be treated?

A. I believe it gives states the option to include new gas-fired combined cycle or other units

4707 in or outside of the Clean Power Plan Section 111(d) 1 2 aspects. 3 MR. KURTZ: We'll stick with that. Thank 4 you. 5 EXAMINER ADDISON: Thank you, Mr. Kurtz. Mr. McNamee? 6 7 MR. MCNAMEE: No, thank you. 8 EXAMINER ADDISON: Professor Ferrey, you 9 are excused. 10 THE WITNESS: Thank you. EXAMINER ADDISON: Mr. Sauer, I believe 11 12 you had previously moved for the admission of OCC Exhibits No. 20 and 21. 13 14 MR. SAUER: Yes, your Honor. 15 EXAMINER ADDISON: Are there any 16 objections? 17 Seeing none, these will be admitted. 18 (EXHIBITS ADMITTED INTO EVIDENCE.) 19 MR. SAUER: Your Honor, I'd also like to 20 proffer the testimony of Professor Steven Ferrey 21 filed May 11, 2015. OCC preserves its right under 22 Ohio Rule of Evidence 103 and Rule 4901-1-15(f) of 23 the Ohio Administrative Code to raise the propriety 24 of the attorney examiner's ruling striking portions 25 of Professor Ferrey's testimony on brief.

1	Pursuant to the Rules of Evidence
2	103(A)(2) an "Error may not be predicated upon a
3	ruling which admits or excludes evidence unless a
4	substantial right of the party is affected."
5	And "The ruling is one excluding
6	evidence, the substance of the evidence was made
7	known to the court by offer or was apparent from the
8	context within which questions were asked."
9	Rule 4901-1-15(F) allows for "Any party
10	that is adversely affected by a ruling issued under
11	Rule 4901-1-14 of the Administrative Code or any oral
12	ruling issued during a public hearing or prehearing
13	conference and that (1) elects not to take an
14	interlocutory appeal from the ruling or (2) files an
15	interlocutory appeal that is not certified by the
16	attorney examiner may still raise the propriety of
17	that ruling as an issue for the commission's
18	consideration by discussing the matter as a distinct
19	issue in its initial brief or in any other
20	appropriate filing"
21	EXAMINER ADDISON: The request is noted,
22	Mr. Sauer. Thank you.
23	MR. SAUER: Thank you, your Honor.
24	EXAMINER ADDISON: Mr. Lang?
25	MR. LANG: Your Honors, I would move

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      Company Exhibits 66 through 70.
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                  EXAMINER ADDISON: Are there any
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      objections to Companies' Exhibits 66, 67, 68, 69, and
      70?
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 5
                  Seeing none, they will be admitted.
                  (EXHIBITS ADMITTED INTO EVIDENCE.)
 6
 7
                  EXAMINER ADDISON: Thank you all. At
 8
      this time we will take a lunch break, and we will
      return around 2:00. Let's go off the record.
 9
                  (At 12:56 p.m. a lunch recess was taken
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      until 2:00 p.m.)
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4710 Monday Afternoon Session, 1 2 October 5, 2015. 3 4 EXAMINER ADDISON: Mr. Kumar, you may 5 call your next witness. MR. KUMAR: The OCC would like to call 6 7 Dr. Randall Woolridge to the stand and would like to 8 mark his testimony as OCC Exhibit 22. 9 EXAMINER ADDISON: So marked. 10 (EXHIBIT MARKED FOR IDENTIFICATION.) 11 EXAMINER ADDISON: Please proceed, 12 Mr. Kumar. 13 \_ \_ \_ 14 J. RANDALL WOOLRIDGE, PH.D. 15 being first duly sworn, as prescribed by law, was 16 examined and testified as follows: 17 DIRECT EXAMINATION 18 By Mr. Kumar: 19 Could you please state your full name and Q. 20 business address for the record. 21 Α. My name is initial J. Randall Woolridge, 22 and that's spelled W-o-o-l-r-i-d-q-e, and my business 23 address is 120 Haymaker Circle, State College, 24 Pennsylvania. 25 Q. Thank you. Are you the same Dr. Randall

4711 Woolridge whose direct testimony was filed in these 1 2 cases? 3 Yes. Α. 4 On whose behalf do you appear? Q. 5 Α. OCC. Do you have your prepared testimony with 6 Ο. 7 you on the stand? 8 Α. T do. 9 And did you prepare your testimony? Ο. Yes. 10 Α. Do you have any changes or corrections to 11 Ο. 12 that testimony? 13 Α. I have three corrections. Two of them 14 are on page 29. On line 3, the number at the end of the line should be "2889.7." 15 16 If you go down to line 7 of that page, the word "over" should be omitted. 17 18 On page 46, line 5, at the end of the 19 line, it should say "in the proxy groups." There's 20 only one proxy group. "In the proxy group." 21 Ο. With those changes and corrections, if I 22 were to ask you the same questions found in your direct testimony that's been marked as OCC Exhibit 23 24 22, would your answers be the same? 25 Α. Yes.

4712 MR. KUMAR: Your Honor, the OCC moves for 1 2 the admission of Exhibit 22 and would like to make 3 the witness available for cross-examination. 4 EXAMINER ADDISON: We'll defer ruling on 5 the motion until cross-examination has been completed. Thank you, Mr. Kumar. 6 7 Ms. Bojko, any questions? 8 MS. BOJKO: No, thank you, your Honor. 9 EXAMINER ADDISON: Mr. Mendoza? 10 MR. MENDOZA: No questions, your Honor. EXAMINER ADDISON: Mr. Alexander? 11 12 MR. ALEXANDER: Thank you, your Honor. 13 14 CROSS-EXAMINATION 15 By Mr. Alexander: 16 Mr. Woolridge, good to see you again. Ο. 17 Α. Good afternoon. 18 Good afternoon. I'd like to begin by Ο. addressing your electric proxy group. It's listed in 19 20 your Exhibit JRW-4. Now, you believe that a proxy 21 group should be comparable to the business being 22 examined, correct? I believe -- it should have a risk 23 Α. 24 profile that's similar. 25 Q. And so you believe the peer group should

4713 have a comparable risk profile to the entity being 1 2 examined. 3 Α. Yes. 4 And page 3, line 10, you say that -- just Q. 5 let me know when you're there. MR. KUMAR: Is that his testimony? 6 7 MR. ALEXANDER: Yes. 8 Yes. Α. 9 Ο. And you say the interest rates are near all-time lows; is that correct? 10 Α. 11 Yes. 12 Q. And then at page 21 of your testimony --13 let me know when you're there. 14 Α. Yes. Now, here you address some of the causes 15 Q. 16 of interest rate changes. Would you agree that 17 interest rates have a direct correlation with cost of 18 capital calculations? Generally they're related. If interest 19 Α. 20 rates go down, usually cost of capital goes down 21 generally. It's not one-for-one perfect, but 22 generally it's a positive relationship. And you would agree that policies of the 23 Ο. 24 Federal Reserve could cause interest rate changes, 25 correct?

4714 Certainly the Fed impacts short-term 1 Α. 2 rates, certainly much more than long-term rates. 3 And you would agree that the dollar Ο. 4 status as a reserve currency could cause interest 5 rate changes? It can affect the flow of funds around 6 Α. 7 the world, and in that way affect interest rates. 8 And you would agree the international Ο. 9 economy could cause changes in the United States 10 interest rate? 11 Certainly we've seen that a lot lately. Α. 12 And you would agree that the risk return Ο. 13 of an investment in the United States versus other 14 global investments could also have an impact on the 15 United States interest rates. 16 Generally they can -- it's a global Α. 17 phenomenon. 18 And you would agree international trade Ο. 19 and currency flows could be a cause of interest rate 20 changes. 21 Α. Yes. 22 And you would agree that economic growth Q. 23 could be a cause of interest rate changes. 24 Α. Yes. 25 Q. And you would agree that stock market

1 fluctuations could be a cause of interest rate 2 changes.

A. Yes. And, again, you know, investors
seek out their preferred risk/return relationship.
That changes over time, and it can result in funds
flowing from one market to another.

7 Now, I'd like to turn your attention to Q. 8 the AEP capacity case that you discuss in your 9 I'd first like to focus on some timing testimony. 10 questions. You are aware that AEP Ohio first proposed the 11.15 percent ROE in Witness Avera's 11 12 testimony in the AEP Ohio distribution case you cite 13 at page 9 of your testimony, correct?

A. Yes.

14

18

Q. And AEP Ohio offered the testimony of Company Witness Pearce in its capacity proceeding in March of 2012, correct?

A. Yes, it did.

Q. And Mr. Pearce incorporated Dr. Avera's11.15 percent ROE by reference, correct?

A. Yes. Dr. Avera's testimony was from
March of 2011.

Q. And the settlement in the AEP Ohio
distribution case you reference in your testimony was
approved by the Commission on December 14th, 2011?

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	4716
1	A. Yes.
2	Q. And the opinion and order in the AEP Ohio
3	capacity case was issued on July 2nd, 2012, correct?
4	A. Yes, I believe so. I don't think I have
5	that in my testimony, but I think that's correct.
6	Q. And so the Commission was aware at the
7	time it issued its opinion and order in the capacity
8	case that it had not accepted Dr. Avera's
9	11.15 percent recommendation in the distribution
10	cases, correct?
11	A. Yes.
12	Q. And turning to page 3 excuse me
13	page 13, line 11 of your testimony. Let me know when
14	you're there.
15	A. Yes.
16	Q. Now, here you address what Dr. Pearce
17	provided in his testimony in the AEP Ohio capacity
18	case? Actually, strike that. You already addressed
19	it.
20	The AEP Ohio capacity case approved AEP
21	Ohio's requested ROE of 11.15 percent, correct?
22	A. Yes.
23	Q. And you're aware that in the AEP Ohio
24	capacity proceeding Staff Witness Smith recommended
25	return on equity of 10 and 10.3 percent for each of

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 1
      the AEP entities, correct?
                  Yeah, I think -- yes, I believe that's
 2
             Α.
 3
      true.
 4
                  And the Commission did not adopt Staff
             Ο.
 5
      Witness Smith's recommendation in the AEP Ohio
      capacity case, correct?
 6
 7
             Α.
                  That is correct.
 8
                  The Commission adopted Dr. Pearce's
             Ο.
      recommendation?
 9
                  Yes. And I discussed that in my
10
             Α.
      testimony why I think that was erroneous, that it was
11
12
      obviously a very dated number, the 11.15 percent, and
13
      so I felt that, you know, it was an inappropriate
14
      decision by the Commission.
                  Well, let's talk about that. You say you
15
             Ο.
16
      thought the number was dated. At page 13, line 17,
17
      you say that financial conditions were different than
18
      they were in early 2011. Do you see that?
19
                  Oh, yeah, I agree. I mean, if you look
             Α.
20
      at the 11.15 percent that was developed by Dr. Avera
21
      in 2011, and -- I forget. I have it here in my
22
      testimony. He was using projected interest rates for
23
      2013 of, like, 5 percent for treasuries and the
24
      6 percent for utilities.
25
                  I mean, obviously in 2013, interest rates
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4718 were not nearly that. What I'm saying by dated is 1 2 11.15 percent was developed in 2011 based on 3 projections of interest rates which were about 300 4 basis points above where they are today. 5 MR. ALEXANDER: Your Honor, I move to The question was simply, "Do you see the strike. 6 line reference?" 7 8 MR. KUMAR: Your Honor, I think Dr. Woolridge's answer adequately responds to 9 Mr. Alexander's question and provides a level of 10 detail that's necessary to understand the context of 11 12 the question. 13 EXAMINER ADDISON: Consistent with our 14 practice, I think I'm going to deny the motion to 15 strike at this point. 16 But, Dr. Woolridge, I will direct you to 17 just simply listen to Mr. Alexander's questions and 18 respond only to those questions, and Mr. Kumar can 19 bring anything up in redirect that you feel should be 20 on the record. 21 THE WITNESS: Okay. Thank you. I'm 22 sorry. 23 EXAMINER ADDISON: Please proceed, 24 Mr. Alexander. 25 MR. ALEXANDER: Thank you, your Honor.

	4719
1	Q. (By Mr. Alexander) So, Dr. Woolridge,
2	you're referencing the 2011 date at that line because
3	that is when Dr. Avera filed his testimony, right?
4	A. Yes.
5	Q. But you don't have any knowledge about
6	what time data the Commission used in reaching its
7	July 2012 decision in the capacity case, correct?
8	A. I do not. I do not know to be honest,
9	I'm not sure what all, other than Dr. Pearce's
10	testimony, was presented on cost of capital.
11	Q. So in this paragraph at page 13, line 16,
12	you are comparing rates from 2011 to the present; is
13	that correct?
14	A. Yes. And it was probably likewise
15	comparable to 2013, in that I'm saying that the rates
16	used by Dr. Avera of 5.5 5 to 5.5 for treasuries
17	and the rates 6.2 to 6.4 for AA-rated utilities in my
18	testimony on pages 13 and 14, I give the rates as of
19	when I prepared my testimony, and that's they're
20	pretty close to where they were then. They're a
21	little bit below that right now.
22	Q. You would agree that interest rates hit a
23	low in mid-2012, correct?
24	A. Yes, they did.
25	Q. And you would agree that interest rates

4720 are currently near all-time lows, correct? 1 2 Α. They're still relatively low, yes, near 3 all-time low. 4 Please turn to your Exhibit JRW-2, Panel Ο. 5 B and let me know when you're there. 6 Α. Yes. 7 Ο. Now, this panel represents the risk 8 premium for BAA-rated bonds over the ten-year 9 treasury vield; is that correct? 10 Α. Yes. And you consider the ten-year treasury 11 Ο. 12 rate to be the risk-free rate, correct? 13 Α. It's probably the most prevalent. I 14 mean, I use -- in my CAPM I use the 30-year. I think 15 the references to ten years is primarily because 16 there's a 50-year record of it. There's a gap when 17 30-year treasuries weren't traded. So I think 18 generally the ten-year now is looked at as the 19 risk-free rate. Also most mortgages are tied to the 20 ten-year. So the purpose of your Exhibit JRW-2 21 Ο. 22 Panel B is to show the risk premium for BAA-rated bonds, correct? 23 24 Α. Yes. 25 Q. And focusing on July of 2012, the BAA

4721 risk premium was approximately 2.9 percent at that 1 2 time, correct? 3 It was, yeah, around 3 percent, Α. 4 thereabouts. 5 Ο. And your graph in JRW-2, Panel B, ends with data as of October of 2014, correct? 6 7 Α. I believe so, yes. 8 And the BAA risk premium was Ο. 9 approximately 2.1 percent in October of 2014. 10 Α. It was lower, yes. I would agree, yes. 11 And in your capital asset pricing model, Ο. 12 you used a 4 percent risk-free rate. 13 Α. Yes. 14 And if interest rates were to be higher Ο. 15 or lower than you anticipated, that could change the 16 cost of capital that you calculate as well, right? 17 Α. Yes. 18 And you would agree that a fixed return Ο. 19 on equity could potentially benefit ratepayers if 20 capital costs were to increase, correct? 21 Α. Yes, it would. 22 Now, shifting topics, you reviewed Q. Mr. Staub's calculation of the one- and 15-year 23 24 treasury rates, correct? 25 Α. Yes, I have.

4722 And you don't have any criticisms of the 1 Ο. 2 way Mr. Staub mathematically calculated those average 3 rates, correct? 4 Α. The way he calculated them in terms No. 5 of the differences in yields, I agree with he calculated them correctly. I -- obviously, my 6 7 testimony disagrees with his application, but I think 8 he correctly calculated those numbers. 9 And at page 5, line 1, of your testimony, Ο. you address your belief that costs of capital and 10 return on equity could go lower in the future. 11 Do 12 you see that? 13 Α. They could. They could go higher. 14 Okay. You would agree that long-term Q. treasury rates are typically higher than short-term 15 16 treasury rates, correct? 17 Α. Yes. 18 And when short-term rates are higher than Ο. 19 long-term rates, that is what is known as an 20 inversion? 21 Α. Yes. 22 And inversions are very rare, correct? Q. 23 Α. That's usually when short-term inflation 24 is very high, yes, like the early 1980s. 25 Q. And long-term rates are typically higher

4723 than short-term rates to address the risk of 1 2 investing over a longer period of time, correct? 3 Generally investors want a higher return Α. 4 to invest over a longer period of time. 5 Ο. And long-term rates are also typically higher than short-term rates because inflation 6 7 expectations are built into long-term rates, correct? 8 Α. Yes. 9 Ο. You are aware that the return on equity 10 proposed by the companies here would be fixed for a 15-year period. 11 12 Α. Yes. 13 Ο. And despite the fact that the ROE is 14 actually fixed for 15 years, you are suggesting that the term premium should be estimated by a period of 15 16 less than 15 years, correct? 17 MR. KUMAR: Objection, your Honor. 18 EXAMINER ADDISON: Grounds. MR. KUMAR: Mischaracterizes 19 20 Mr. Woolridge's testimony. 21 MR. ALEXANDER: I'll rephrase your Honor. 22 EXAMINER ADDISON: Thank you, Mr. Alexander. 23 24 Could you turn to page 16, line 1, of Ο. 25 your testimony.

	1/2
1	A. Yes.
2	Q. Here you say, "Term premium, if needed,
3	should be estimated by a term premium of less than 15
4	years."
5	A. Yes.
6	Q. So you suggest no term premium because
7	under a normal base rate case structure, utilities
8	can come in for a new rate case when the return on
9	equity needs to be adjusted, correct?
10	A. No. I mean, I would say I suggest no
11	initially I said I don't have a term rate because
12	nowhere do we say an ROE is a one-year rate. Now, in
13	Mr. Staub's calculation, he goes from one year to 15
14	years, so effectively saying that's a one-year rate,
15	and we don't use one-year treasury rates when we
16	compute the cost of equity. We don't use one-year
17	growth rates. We use long-term growth rates, so it's
18	a long-term concept.
19	And so I would say if you're comparing
20	one year to 15 year, I don't think that's correct. I
21	said one term. If you want to look at a term, if the
22	Commission decides there should be a term tied to
23	this, in other words, a term premium above, say, what
24	I estimate is the base cost of capital, that should
25	reflect something other than 15 years because the

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1	company doesn't come in for a rate case every year.
2	The company has had, what, two rate cases
3	in the last 25 years. So investors, you wouldn't
4	expect them to come in every year. If, as it turns
5	out, you want to base it you know, the rate case
6	is where you get to reset your ROE, basically, either
7	up or down.
8	So the way I look at it is ROE is not a
9	one-year rate. Most cases I've been involved with
10	it's in place for five or ten years. You don't
11	have some states you have rate cases that come and
12	go, but, for example, with this company, two cases in
13	25 years, that means they could come in they've
14	only come in a couple times to reset their rates tied
15	to their ROE.
16	MR. ALEXANDER: Could I have that
17	question read, please?
18	EXAMINER ADDISON: You may.
19	(Record read.)
20	Q. Let's take it step by step, I guess. You
21	agree that under Ohio law a utility is typically
22	allowed to come in for a rate case as often as it
23	would like, correct?
24	A. Yes.
25	Q. And when you say that the companies only

4726 came in for a rate case twice in 25 years, the 1 2 companies have not been legally prohibited from 3 coming in for rate cases more often than that, 4 correct? 5 Α. That is correct. You would agree that utilities generally 6 Ο. 7 can come in for a new rate case when their return on 8 equity needs to be adjusted, correct? 9 Α. Yes, among other things, obviously. 10 Ο. For example, utilities could come in for 11 a new rate case if interest rates would increase, 12 correct? 13 Α. They could, yes. 14 But if there was a significant change in Ο. 15 the next 15 years, FES would differ from that normal 16 model because it would not have the ability to come 17 in for a new rate case, correct? 18 Right. And I said in my testimony, I Α. 19 think if the Commission determines some other period 20 was right, then the Commission could do that, say I 21 think the logical thing is this ESP ends in 2019, 22 that if they think the ROE should be reopened then, 23 then that could be part of the decision made by the 24 Commission. 25 Q. And just so we're clear, you have not

4727 built any term premium into your analysis proposed 1 2 return on equity. 3 Α. No, I have not. 4 You're not recommending any specific term Ο. 5 premium in this case, correct? No. I said if the Commission feels one Α. 6 is appropriate, then they could build into it, but I 7 8 don't think it's appropriate. 9 If you turn to page 5 of your testimony, Ο. 10 line 4 --11 Α. Yes. 12 Q. -- you address FES Solutions' historic 13 return on equity; is that correct? Α. 14 Yes. And you calculated that historic earned 15 Q. 16 return on equity from FES's financial statements, 17 correct? 18 Α. Yes, from the 10-K. 19 And earned return on equity is a Q. 20 backward-looking calculation, correct? 21 Α. Yes. 22 Q. And earned return on equities can vary 23 from a preset regulatory rate of return, correct? 24 Α. Yes. And, obviously, they don't have a 25 regulatory rate of return at this point.

4728 And when calculating an appropriate ROE 1 Ο. 2 from a regulatory perspective, that is set on a 3 going-forward basis, correct? 4 Α. Yes. 5 Ο. And forward-looking costs of capital is not set based on references to historic return on 6 7 equity, correct? 8 No. My point is to highlight the returns Α. 9 that they have been earning. 10 And you are not aware of any jurisdiction Ο. in which historic return on equity was used to 11 12 establish future regulated return on equity, correct? 13 Α. No. 14 And if historic return on equity was Q. 15 abnormally high, you would not recommend an upward 16 adjustment in a regulated return on equity, correct? 17 No, that's correct. Now, my point here Α. 18 is just that why I thought, you know, my return was 19 certainly good compared to what FES has been earning 20 in the last couple of years. So this has nothing to 21 do with setting one return versus the other. I 22 just -- it's better than it was. 23 MR. ALEXANDER: Your Honor, I move to 24 strike everything after "and." 25 MR. KUMAR: Your Honor, Mr. Woolridge's

4729 answer has essential context to the line of 1 2 questioning Mr. Alexander was asking, and it explains 3 why he had some issues in terms of the question. 4 EXAMINER ADDISON: Mr. Alexander, where 5 were you --MR. ALEXANDER: I believe the answer 6 7 started with "yes" and then the witness provided his 8 explanation. 9 EXAMINER ADDISON: Can I have the answer 10 read back, please, question and answer. 11 (Record read.) 12 MR. ALEXANDER: Your Honor, the motion to 13 strike is starting with "now." I think I said "and" the first time. 14 15 EXAMINER ADDISON: I'm going to grant the 16 motion to strike for everything after "now." 17 (By Mr. Alexander) And so when you Q. 18 reference -- you are not suggesting any downward 19 adjustment for the regulated ROE based on the earned 20 ROE's referenced in your testimony, correct? 21 Α. Correct. 22 Please turn to page 17, line 1, where you Q. 23 discuss the risk of FES's merchant generation. Let 24 me know when you're there. 25 Α. Yes.

	4730
1	Q. You've never calculated a proposed return
2	on equity for merchant generator before, correct?
3	A. Correct.
4	Q. Please turn to page 18, line 14, of your
5	testimony. Let me know when you're there.
6	A. Yes.
7	Q. You don't know what the companies have
8	proposed with regard to how legacy generation costs
9	will be reviewed by the Commission, correct?
10	A. Correct.
11	Q. And you don't know what the companies
12	have proposed with regard to how going-forward costs
13	will be reviewed by the Commission, correct?
14	A. I've only reviewed what I have on 18 and
15	19, Dr. Rose's testimony where I mean from my
16	mind, I look at it I mean, this is all I really
17	reviewed, what's in my testimony.
18	Q. My next question, so the quote on page 19
19	of your testimony is the entirety of your knowledge
20	regarding the companies' proposed review process,
21	correct?
22	A. Yes.
23	Q. And this portion of your testimony arose
24	from your discussions with OCC Witness Ken Rose from
25	a conference call the two of you had?

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1	A. Yes.
2	Q. And you don't believe the regulatory
3	oversight issue to be a big issue, correct?
4	A. I don't think it's a huge issue. It's
5	just if you compare this to a rate case, this type of
6	review to a rate case where you have, you know, six
7	months of hearings and intervenors, it's just a
8	lesser it's a lesser review process, I'd say.
9	Q. So did you say yes, you don't think it's
10	a big issue with that explanation?
11	A. Yes.
12	Q. And this portion of your testimony has
13	not impacted your calculation of the proposed return
14	on equity, correct?
15	A. No.
16	Q. And you are not recommending any
17	regulatory review process as part of your direct
18	testimony in this case, correct?
19	A. No.
20	Q. No, I'm not correct?
21	A. Oh, I'm sorry. I said no, I'm not I'm
22	not proposing any review process.
23	Q. And now let's focus on your Exhibit
24	JRW-4. Let me know when you're there.
25	A. Yes.

4732 1 Now, in this exhibit you provide Standard Ο. 2 & Poors' issue or credit ratings, correct? 3 Α. Yes. 4 Ο. The exhibit itself says S&P bond rating. 5 You actually intended that to be issuer rating. Some people call them bond ratings, but 6 Α. 7 what I used were issuer ratings. 8 And Standard & Poor's ratings are Ο. 9 different than the Moody's ratings, correct? 10 Α. Yes. And would you agree that the Moody's BAA 11 Ο. 12 rating is equivalent to the Standard & Poor's BBB 13 rating? 14 Α. Yes. And BBB-minus would be equivalent to 15 Ο. 16 BAA-3 for Moody's, correct? 17 Α. Yes. 18 Now, please turn to your Exhibit JRW-2. Ο. And, again, focusing on Panel B. And so what you've 19 20 done in JRW-2, Panel B, is compared the ten-year 21 Treasury rate to the Moody's BBA-2 rating, correct? 22 Α. Yes. 23 Ο. And that would be analogous to the 24 Standard & Poor's BBB rating, correct? 25 Α. Yes.

4733 And FES's credit rating is BAA-3, 1 Ο. 2 correct? 3 Yes. Α. 4 And that would be analogous to the Ο. Standard & Poor's BBB-minus. 5 6 Α. That's correct. 7 Ο. And you used BAA2-rated bonds in your 8 Exhibit JRW-2 because that is all you had data for, 9 correct? 10 Α. Correct. 11 And if companies are lower rated, that Ο. 12 would indicate that they are riskier than 13 higher-rated companies, correct? 14 Α. Yes. 15 Ο. And, now, turning your attention back to 16 JRW-4, this is the proxy group you used to calculate 17 your proposed return on equity, correct? 18 Α. Yes. 19 And this proxy group included utilities Ο. 20 ranging from BBB-plus to BBB-minus, correct? 21 Α. Yes. 22 And FirstEnergy Corp. is the entity you Q. examined, correct? 23 Yes, it's as -- I just listed that as 24 Α. 25 part of the group for comparison purposes. It is

1 part of the group, yes. 2 Right. But what I want to clarify here Q. 3 is you examined FirstEnergy Corp. as opposed to 4 FirstEnergy Solutions, correct? 5 Α. As a comparable in this table, yes. And I believe I may have asked this. 6 Ο. Ιf 7 I did, I apologize. FirstEnergy Corp. is BBB-minus, 8 correct? 9 Α. Yes. 10 Q. In your proxy group, there are seven BBB-plus utilities in the proxy group, correct? 11 12 Α. Yes. 13 Ο. And there are 11 BBB utilities in the 14 proxy group, correct? 15 Α. Yes. 16 And there are two BBB-minus utilities in Ο. 17 the proxy group, correct? 18 Α. Yes. 19 Now, you did not examine FES or Q. 20 FirstEnergy Solutions in comparison to the proxy 21 group, correct? 22 Α. No, I did not. 23 Ο. And you are aware that FirstEnergy 24 Solutions is a stand-alone entity with its own credit 25 rating, correct?

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1	A. Yes, I do.
2	Q. And FirstEnergy Solutions is also a
3	BBB-minus, correct?
4	A. It is. And there are very few BBB-minus
5	regulated electric utilities. Obviously, FES has
6	unregulated merchant generation and there's just, you
7	know and as I say in my testimony, to me, the
8	contract the rider looks like regulated
9	generation, and most of the companies in this group
10	have regulated generation.
11	MR. ALEXANDER: Could I have the question
12	and answer read back, please, your Honor.
13	EXAMINER ADDISON: You may.
14	(Record read.)
15	MR. ALEXANDER: Your Honor, I move to
16	strike everything after "and."
17	MR. KUMAR: Again, your Honor, I think
18	Mr. Woolridge's answer goes to the context and
19	premise of Mr. Alexander questions, so I think it
20	should not be stricken.
21	EXAMINER ADDISON: We will being granting
22	the motion to strike for everything after "and."
23	And, Dr. Woolridge, I'll remind you to
24	just answer the question posed. Thank you.
25	Q. (By Mr. Alexander) Dr. Woolridge, there

are no merchant generators in your peer group, 1 2 correct? 3 That is correct. Δ 4 And you did not include any merchant Ο. 5 generators because your source of data was Value Line, and Value Line does not include merchant 6 generators in their numbers, correct? 7 8 That's correct, they don't have merchant Α. 9 generators as part of their utility industry. 10 Ο. And you also don't include any merchant 11 generators in your peer group because your first 12 criteria required that each entity examined received 13 at least 50 percent of its revenue from regulated 14 operations, correct? 15 Α. Correct. 16 So if a merchant generator didn't get Ο. 50 percent of its revenue from regulated operations, 17 it would not be included in your list, correct? 18 19 Α. That's correct. 20 And do you know if FirstEnergy Solutions Q. 21 gets 50 -- strike that. And you don't know whether 22 FirstEnergy Solutions gets 50 percent of its revenue 23 from regulated operations, correct? 24 They do not. Α. 25 Q. And FirstEnergy Corporation has the

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4737 lowest credit rating of any entity in your peer 1 2 group, correct? 3 Α. Yes. 4 And FirstEnergy Corporation has the Ο. 5 lowest return on equity of any entity in your peer group, correct? 6 7 Α. Yes. 8 And FirstEnergy Corporation is generally Ο. weaker on average than the rest of your peer group, 9 correct? 10 Yes, and I explain why they are in my 11 Α. 12 testimony. 13 Ο. And you did not adjust the recommended 14 return on equity in any way to reflect the increased risk of FirstEnergy Corporation as opposed to the 15 16 rest of your peer group, correct? 17 Α. No, I didn't, and I explain that in my 18 testimony. 19 And your proposed return on equity does Q. 20 not make any adjustment to reflect the risk of 21 FirstEnergy Solutions as compared to the peer group, 22 correct? 23 Α. No, it does not, and I explain that in my 24 testimonv. 25 Q. Turn to page 30, line 21, of your

4738 testimony. Are you there? 1 2 Α. I'm sorry. It's page 30? 3 Page 30 starting at -- the sentence Ο. 4 starting at line 20 that goes into line 21 where you address the risk associated with cost-based 5 generation as opposed to merchant generation. Do you 6 7 see that sentence? 8 Α. Yes. 9 Well, you would agree that, first of all, Ο. you have not calculated the risk of FirstEnergy 10 Solutions as a merchant generator, correct? 11 12 Α. I have not. 13 Ο. And you would also agree that even if you 14 were looking at a utility with both regulated and nonregulated operations, that you evaluate the risk 15 16 of the entity as a whole as opposed to one subpart of 17 the entity, correct? 18 I disagree with that to a certain degree. Α. 19 I recognize in terms of the amount of regulated 20 revenue, that part of it as being part of the risk 21 profile. 22 MR. ALEXANDER: Could I have that 23 question and answer read back, please? 24 EXAMINER ADDISON: You may. 25 (Record read.)

4739 1 So you're only suggesting that the amount Ο. 2 of regulated revenue be considered as part of 3 determining of the risk of the entity as a whole. 4 Α. Yes. I mean, that's one of the risk factors I look at. 5 But what you're evaluating is the risk of 6 0. 7 the entity as a whole, not the risk of just the 8 regulated side of the entity, correct? Yes, and the credit ratings will take 9 Α. into account things like the unregulated revenue. 10 Please turn to page 32, starting at line 11 Ο. 12 10 where you address capital structure. Let me know 13 when you're there. 14 Α. Yes. 15 Q. Now, you're proposing that instead of 16 using FirstEnergy Solutions' capital structure, the 17 Commission should use FirstEnergy Corporation's 18 capital structure, correct? 19 Α. Yes. 20 Q. And you are also recommending the Commission use the FirstEnergy Solutions' cost of 21 22 debt; is that correct? 23 Α. Yes. 24 And FirstEnergy Solutions' cost of debt 0. 25 is 4.54 percent, correct?

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1	A. Yes.
2	Q. And FirstEnergy Solutions currently has a
3	65 percent equity ratio, correct?
4	A. Yes. And the company obviously didn't
5	feel it should propose that equity ratio and uses a
6	50/50 capital structure. So, I mean, I'm not the
7	only one who didn't use FES' capital structure.
8	Q. So FirstEnergy Solutions has 35 percent
9	debt under its actual capital structure, correct?
10	A. Yes.
11	Q. And you would agree that if FirstEnergy
12	Solutions debt was increased from 35 percent to
13	55 percent, that the expected cost of debt would
14	increase, correct?
15	A. It could. It depends when they issued
16	the debt and that sort of thing. Their debt cost
17	rate is low because of when they issued the debt, I
18	presume. But, no, again, the company uses 50/50 as a
19	debt-to-equity capital structure. I used 55 percent
20	debt, 45 percent equity, and that was the difference
21	between the two.
22	MR. ALEXANDER: Could I have the question
23	and answer read, please?
24	EXAMINER ADDISON: You may.
25	(Record read.)

4741 1 So, Doctor, holding all else constant, Ο. 2 you would agree if FirstEnergy Solutions debt was 3 increased from 35 percent to 55 percent, then the 4 expected cost of debt would increase, correct? 5 Α. Yes. I will agree in the sense that if they used more debt, their financial risk would go up 6 7 and cost of debt would go up, all else equal. 8 Because holding all else equal, as equity Q. decreases, the relative risk of the firm would 9 10 increase. 11 Α. Yes. 12 Q. And do you believe that if -- strike 13 that. 14 You did not take the impact of the 15 20 percent change you made to the FirstEnergy 16 Solutions equity structure into account when you 17 calculated your cost of debt, correct? 18 Α. I did not. 19 And you are not aware of any scholarly Ο. 20 papers or articles which support using a parent's 21 capital structure instead of the plant owners', 22 correct? 23 Α. No. I mean, I disagree in the sense that 24 some -- I mean, I'm not aware of any particular 25 scholarly papers on this topic. I do know that the

4742 way credit ratings come out, the parent capital 1 2 structure has a big impact on that, but I'm not aware 3 of any studies that demonstrate that. 4 MR. ALEXANDER: Your Honor, I move to 5 strike the reference to how credit ratings are determined. He answered the question at the 6 7 beginning and then switched to how credit ratings are 8 determined and then came back to the question at the 9 end. So I move to strike everything once he switched to how credit ratings are calculated. 10 11 EXAMINER ADDISON: Mr. Kumar. 12 MR. KUMAR: Your Honor, I think 13 Mr. Alexander's question mischaracterizes 14 Dr. Woolridge's testimony, and I think Dr. Woolridge 15 is attempting to clear up the issues in that question 16 by his answer. 17 EXAMINER ADDISON: I'm going to grant the 18 motion to strike for the sentence "I do know that" 19 and ending "it has a big impact on that." 20 Q. And, Dr. Woolridge, you are not aware of 21 any other proceeding where the capital structure of 22 the entity which actually owns the assets was changed by such a large margin, correct? 23 24 I don't understand your question. Α. 25 Q. Sure. You've proposed changing the

4743 FirstEnergy Solutions capital structure by 1 2 20 percent, correct? 3 The companies proposed 50/50. Α. No. Ιt 4 was 55/45, so I wouldn't say that's 20 percent. 5 Ο. Okay. So I'll rephrase. You've proposed changing the FirstEnergy Solutions' capital structure 6 an additional 5 percent over that proposed by the 7 companies in this proceeding, correct? 8 9 Α. Yes. 10 Q. And you are not aware of any other proceeding where the capital structure of the entity 11 12 which actually owns the assets was altered by that 13 percentage, by 20 percent? 14 I'm sorry. Reread that or give me the Α. question again. I didn't quite understand the 15 16 question. 17 You are not aware of any proceeding in Ο. 18 which the capital structure of the entity which 19 actually owns the assets was changed by 20 percent, 20 correct? 21 Α. Again --22 MR. KUMAR: Objection. Your Honor, I 23 think that question mischaracterizes Dr. Woolridge's 24 testimony with regards to how he adjusted capital 25 structure of the companies.

4744 EXAMINER ADDISON: Mr. Alexander? 1 2 MR. ALEXANDER: I've just been informed I 3 said 20 percent and I meant to say 5. 4 EXAMINER ADDISON: Thank you. 5 MR. ALEXANDER: So let me repeat the question and we'll try this again. 6 7 Ο. (By Mr. Alexander) You are not aware of 8 any other proceeding where the capital structure of 9 the entity which actually owns the assets was changed 10 by 5 percent, correct? No, I am not, in the strictest terms of 11 Α. 12 how the question was asked. 13 MR. ALEXANDER: Nothing further, 14 Dr. Woolridge. Thank you. 15 EXAMINER ADDISON: Thank you. 16 Mr. Kurtz, any questions? 17 MR. KURTZ: Yeah, I do. 18 19 CROSS-EXAMINATION 20 By Mr. Kurtz: 21 Ο. Dr. Woolridge, will you turn to your 22 Exhibit JRW-1. Are you there? 23 Α. Yes. 24 Okay. I just want to understand the Ο. 25 difference between your proposal and the companies'

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4745
      proposal. For the cost of debt, 4.54 percent, you
 1
 2
      and the company are in agreement?
 3
             Α.
                  Yes.
 4
                  Cost of equity, 8.7 percent, that's your
             Ο.
 5
      proposal?
 6
             Α.
                  Yes.
 7
                  What is the company's proposal?
             Q.
 8
                  11.15 percent.
             Α.
 9
                  Now, both of those are after-tax returns
             Ο.
10
      on equity, correct?
                  What's that?
11
             Α.
12
             Ο.
                  Your 8.7 percent?
13
             Α.
                  8.75, yes.
14
                  8.7 percent?
             Ο.
15
             Α.
                  8.7, yes.
16
                  That's the after-tax return on equity.
             Ο.
17
             Α.
                  Yes.
18
                  Do you know what the pretax return on
             Q.
19
      equity would be?
20
                  I do not collect -- I didn't calculate
             Α.
21
      that.
22
                  Taxes are collected in the rates so in
             Q.
23
      order for the entity to receive that level of profit
      after tax, correct?
24
25
             Α.
                  Yes.
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1 And then also you propose a more Ο. 2 leveraged capital structure making it 55 percent 3 debt/45 percent equity versus 50/50? 4 Α. Yes. 5 Ο. Okay. And the revenue requirement effect on your capital structure is to lower the revenue 6 7 requirement because the cost of debt is less -- the 8 pretax cost of debt is less than the pretax cost of equity --9 10 Α. Yes. 11 -- correct? Okay. And what you show Ο. 12 here, your weighted cost rate, that's the weighted 13 average aftertax cost --14 Α. Yes. 15 Ο. -- correct? If we were to gross up the 16 equity return for taxes, it would be much higher? 17 Α. Yes. 18 Okay. To give your proposal some Ο. 19 real-world impact, what is the dollar impact of just 20 your rate of return. We're talking about 21 capitalization. Just going from 11.15 to 8.7, what 22 is the revenue requirement effect? 23 I don't know. I haven't done that Α. 24 calculation. 25 Q. Can you do it?

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4747 1 I haven't done it. Α. 2 So you're really just giving the Ο. Commission this sort of theoretical recommendation? 3 4 MR. KUMAR: Objection, your Honor. EXAMINER ADDISON: Grounds. 5 MR. KUMAR: Mischaracterizes 6 7 Mr. Woolridge's testimony and beyond the scope of 8 Mr. Woolridge's testimony. 9 EXAMINER ADDISON: Would you mind 10 rephrasing. 11 So is the Commission supposed to Ο. 12 understand what the impact on this case is if they 13 accept your proposal if you haven't done that calculation? 14 15 Α. I just wasn't --16 MR. KUMAR: Objection, your Honor. 17 I just wasn't asked to do that. Α. 18 EXAMINER ADDISON: I'm sorry. The 19 objection is moot since he answered. 20 Please proceed, Mr. Kurtz. 21 Ο. Can you do that calculation? 22 Α. I don't have the numbers to do it right 23 here. 24 You don't have an order of magnitude Ο. 25 of -- if the Commission accepts your recommendation,

4748 it's clearly going to reduce the cost-of-service rate 1 2 from the operating companies to FES, correct? 3 MR. KUMAR: Objection, your Honor. We've 4 already gone -- Mr. Kurtz has already asked and 5 answered -- Mr. Kurtz has already gone into this. Ι think this is sort of belaboring the point. 6 7 MR. KURTZ: It's a different point. I'll 8 rephrase. 9 Ο. (By Mr. Kurtz) Directionally, if the 10 Commission accepts your proposal, presumably you're 11 making it because it will lower the revenue 12 requirements, therefore, make the RRS either a 13 greater credit or a lesser charge? 14 MR. KUMAR: Objection your Honor. Again that's a mischaracterization of Dr. Woolridge's 15 16 testimony. 17 MR. KURTZ: Counsel doesn't want the 18 Commission to even get a feel for what is going on. 19 Actually, I would think you would welcome these 20 questions. This is trying to understand 21 directionally what this does to consumers if the 22 Commission accepts this recommendation. 23 EXAMINER ADDISON: I understand, 24 Mr. Kurtz. MR. KURTZ: That's okay. If OCC doesn't 25

4749 want to talk about that, that's fine. 1 2 (By Mr. Kurtz) Directionally, if the Q. 3 Commission accepts your capitalization 4 recommendation, it will lower the cost-of-service 5 rate from the operating companies to FES, correct? Α. 6 Yes. 7 Ο. And you haven't done the revenue 8 requirements effect changing the capitalization either, I take it? 9 10 I haven't been asked to do it, and so I Α. haven't done it. 11 12 Q. Okay. If the Commission accepts your 13 recommendations on 8.7 percent return on equity and 14 55/45 percent capitalization ratio, in your opinion, would FES be fully compensated for the cost of 15 16 providing generation to the utilities? 17 Α. Yes. 18 Yes. So if the Commission were to accept Ο. your recommendation, would FES, just from a financial 19 20 point of view, in any way be subsidized? 21 Α. Well, they would be subsidized from the 22 standpoint that their merchant generation would 23 suddenly be part of a regulated generation base. 24 If they accept your recommendations, Ο. 25 they'll be fully compensated for the cost of

4750 providing generation, correct? 1 2 Α. For the three clients, yes. 3 So if the Commission accepts your Ο. 4 recommendation, would FES be financially subsidized? 5 Α. It really -- I mean, they would earn a regulated rate of return, and if you call that 6 7 subsidized, you would call that subsidized. I would 8 say they would earn a regulated rate of return. 9 The proper regulated rate of return, not Ο. 10 undercompensation, not overcompensation, if they accept your recommendation? 11 12 Α. Yes. 13 MR. KURTZ; Thank you, your Honors. 14 EXAMINER ADDISON: Thank you, Mr. Kurtz. Mr. McNamee. 15 16 MR. MCNAMEE: I have no questions. Thank 17 you. 18 EXAMINER ADDISON: Mr. Kumar, any redirect? 19 20 MR. KUMAR: May we have a few minutes, 21 your Honor. 22 EXAMINER ADDISON: You may. Let's go off 23 the record. 24 (Recess taken.) 25 EXAMINER ADDISON: Any redirect,

Mr. Kumar? 1 2 MR. KUMAR: Just one question. 3 4 REDIRECT EXAMINATION 5 By Mr. Kumar: Dr. Woolridge, when you conducted your 6 Ο. 7 proxy group analysis, why did you include those 8 utilities that you included in your proxy group 9 analysis? 10 I included a group of which are regulated Α. utilities that have generation which are rated BBB 11 12 plus, minus, or BBB. Under the proposal, you're 13 taking the merchant generation of FES and making it 14 regulated generation, so there was no reason to look 15 at merchant generators as the proxy group because 16 this would be four gigawatts of regulated generation. 17 I looked at regulated electric utilities with 18 generation. 19 MR. KUMAR: Thank you. I have no more 20 questions, your Honor. 21 EXAMINER ADDISON: Thank you, Mr. Kumar. 22 Mr. Parram, any questions? 23 MR. PARRAM: No questions, your Honor. 24 EXAMINER ADDISON: Mr. Mendoza? 25 MR. MENDOZA: No questions, your Honor.

4752 EXAMINER ADDISON: Mr. Alexander? 1 2 MR. ALEXANDER: No questions, your Honor. 3 EXAMINER ADDISON: Mr. Randazzo, do you 4 have any questions? 5 MR. RANDAZZO: No questions. EXAMINER ADDISON: Mr. Kurtz? 6 7 MR. KURTZ: No questions. 8 EXAMINER ADDISON: Mr. McNamee? 9 MR. MCNAMEE: No questions. 10 EXAMINER ADDISON: Dr. Woolridge, you're Thank you very much for your testimony. 11 excused. 12 I believe, Mr. Kumar, previously moved for OCC Exhibit 22 into evidence. 13 14 Do I hear any objections? 15 MR. ALEXANDER: No, your Honor. 16 EXAMINER ADDISON: Seeing none, it will 17 be admitted. 18 (EXHIBIT ADMITTED INTO EVIDENCE.) 19 EXAMINER ADDISON: At this time we'll 20 take a brief five-minute recess. Let's go off the 21 record. 22 (Recess taken.) EXAMINER PRICE: You may call your next 23 24 witness. 25 MR. SAUER: OCC calls Scott J. Rubin to

4753 the stand. We'd like his direct testimony marked as 1 2 OCC Exhibit 23 and his Direct Testimony Confidential 3 Version 24C. 4 EXAMINER PRICE: It will be so marked. (EXHIBITS MARKED FOR IDENTIFICATION.) 5 6 (Witness sworn.) 7 EXAMINER PRICE: Please be seated, and 8 state your name and business address for the record. 9 THE WITNESS: Scott J. Rubin, 333 Oak 10 Lane, Bloomsburg, Pennsylvania. 11 EXAMINER PRICE: Thank you. You may 12 proceed, Mr. Sauer. 13 MR. SAUER: Thank you, your Honor. 14 15 SCOTT J. RUBIN 16 being first duly sworn, as prescribed by law, was 17 examined and testified as follows: 18 DIRECT EXAMINATION 19 By Mr. Sauer: 20 Are you the same Scott J. Rubin whose Ο. 21 direct testimony was filed in these cases? 22 Α. Yes. 23 And on whose behalf do you appear? Q. The Ohio Office of Consumers' Counsel. 24 Α. 25 Q. Do you have your prepared testimony with

4754 you on the stand? 1 2 Α. Yes. 3 Did you prepare the testimony or have it Ο. 4 prepared at your direction? 5 Α. It was prepared by me. Do you have any changes or corrections to 6 Ο. 7 your direct testimony? 8 Α. No. 9 And if I ask you the same questions found Ο. 10 in your direct testimony in OCC Exhibit 23 and 24C, 11 would your answers be the same? 12 Α. Yes. MR. SAUER: The OCC moves for the 13 admission of OCC Exhibits 23 and 24C and tenders the 14 15 witness for cross-examination. 16 EXAMINER PRICE: Thank you. Mr. Mendoza. 17 MR. MENDOZA: No questions, your Honor. EXAMINER PRICE: Let's go off the record. 18 (Discussion off the record.) 19 20 EXAMINER PRICE: Let's go back on the 21 record. IEG. 22 CROSS-EXAMINATION 23 24 By Mr. Randazzo: 25 Q. My name is Sam Randazzo. I am general

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1 counsel for an organization known as the Industrial 2 Energy Users of Ohio, and I am part of a firm known 3 as McNees, Wallace & Nuric based in Harrisburg, 4 Pennsylvania.

5 I'd like to turn to page 25 first and I 6 may jump around a little bit, so if I jump around in 7 a way that creates a problem for you, please let me 8 know and we'll sort it out. On page 25, line 16, you 9 refer to the companies' periods of peak demand. Are 10 you referring -- what type of peak demand are you 11 attempting to refer to there?

A. I'm referring to the hourly peak demand on the combined distribution system of the three -sorry -- the three companies.

Q. Okay. And do you know the degree of coincidence between the hourly distribution system peak demand, the transmission system peak demand, and generation-related peak demand?

19 A. I do not.

Q. Do you know what I mean by "coincidence"?
A. I do.
Q. What is coincidence?

A. Occurring at the same time.

Q. Right. Not coincidence somethinghappening by happenstance, it's the relationship

1 between one event and another, correct? 2 Α. Yes. 3 And so in ratemaking and rate design Ο. 4 purposes, when we say there is coincident, when we're 5 talking about coincident demand, we're looking at the combined demand of all customers, correct? 6 7 Α. Yes. 8 And that can be different as between the Ο. 9 generation, distribution and transmission components, 10 correct? It can be. When we're looking at the 11 Α. 12 particular hour in which a peak occurred, I would be surprised if there is much difference in identifying 13 the hour. I mean the number of kilowatts of demand 14 15 might be different, but I would expect the hour of 16 the peak to be the same. 17 Okay. But you haven't looked at it for Ο. 18 purposes of this proceeding, is that correct? You 19 haven't looked at the degree of coincidence between 20 those three funtionalized demand levels, correct? 21 Α. That's correct. 22 Q. Now, beginning at page 3, line 13, you 23 respond to a question asking you to identify your 24 experience that's particularly relevant to the issues 25 in this case. Am I correct that your testimony does

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4757 not include a proposed rate design for anything; is 1 2 that correct? 3 Α. You are correct. 4 And your testimony -- you haven't Ο. 5 proposed a rate schedule for anything, is that correct? 6 7 Α. That's correct. 8 Ο. And you have not submitted as part of your testimony a fully allocated cost-of-service 9 study; is that correct? 10 That's correct. 11 Α. 12 Q. Do you know what I mean by fully allocated cost-of-service study? 13 14 Α. Yes. What is a fully allocated cost-of-service 15 Q. 16 study? 17 No one's asked me to define that before. Α. 18 We all know what a cost-of-service study is. It's 19 taking the utilities' costs, all of their expenses, 20 as well as their rate base, and I hate to use the 21 same term, but allocating that among various 22 functions of the utility and ultimately to the individual customer classes or rate schedules. 23 24 Now, is there a concept in cost Ο. 25 allocation also known as direct assignment?

A. Yes.

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Q. And tell me the difference between directassignment and fully allocated.

A. Well, I wouldn't say there's a difference
between the two. Direct assignment is part of
performing a fully allocated cost-of-service study.
Wherever you can identify the customer class for
which an expense is incurred, you directly assign
that expense to the customer class. Where you cannot
directly assign a cost, then you allocate it.

Q. Okay. So for purposes of identifying the cost attributable to a particular rate schedule or class, you would first start with direct assignment where direct assignment has application, and when you are dealing with costs that are common costs, you would move to some system of allocation; is that correct?

A. I'm not sure I would do it as a first then second. Usually it's all done as part of an integrated process, but certainly if you can directly assign a cost, you do that. And if you cannot, then you allocate it.

Q. Okay. Now, on page 1, line 18, you
indicate the principles that you talk about in your
testimony include the effect of the proposed

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stipulations on residential customers. You have not 1 2 quantified the impact of any of the stipulations on 3 residential customers; is that correct in your 4 testimony? 5 Α. That is not correct. And where have you quantified the impact 6 Ο. 7 in your testimony? 8 Α. Just give me a moment. 9 Ο. Sure. 10 Α. I would say beginning on page 29 with question 36, and that carries through, it looks like, 11 12 about the end of page 34 where I quantify the effect 13 of the proposed, what I'm abbreviating as rate HLF, 14 the proposed high-load-factor, time-of-use rate for commercial customers. I estimate the minimum 15 16 possible cost impact, and the --17 MR. KUTIK: Your Honor. Your Honor, I 18 just want the witness to be cautioned that he should 19 not reference any confidential figures in the public 20 section. 21 MR. RANDAZZO: My question was about did 22 you quantify, not what you came up with. By sticking 23 with the question, we may be avoiding the risk that 24 Mr. Kutik is sensitive to, and I am as well. And I am as well. I was not going to 25 Α.

4760 mention any numbers, but you asked me where in the 1 testimony I did that. That is a location where I did 2 3 that for the proposed high-load-factor, time-of-use 4 rate. 5 Ο. Right. And is that the only place in your testimony where you attempted to quantify an 6 7 impact on residential customers? 8 Α. I believe so, yes. 9 Ο. Now, you indicate on page 3 at the bottom 10 of the page that you served on the Editorial Committee for the preparation of American Water Works 11 12 Association's cost allocation manual, correct? 13 Α. Yes. The manual covers cost allocation 14 and other aspect of rate setting. 15 Q. Right. And those other aspects would 16 include revenue requirements? 17 Α. Yes. 18 And would I be correct that that manual Ο. 19 looks to compute revenue requirements based upon 20 accounting cost methodology? 21 Α. I'm sorry. I don't follow you. 22 Would that manual be focused on the use Ο. 23 of what I'll call traditional ratemaking or 24 cost-based ratemaking for purposes of computing the 25 revenue requirements?

4761 1 Α. For purposes of that manual, there are 2 really two types of cost-based ratemaking, what's 3 usually referred to as the utility approach, which is 4 what we're used to dealing with before this 5 Commission, rate-based rate of return, if you will. 6 Ο. Right. 7 Α. And there's also a cash-needs approach, 8 which is more applicable to government-owned utilities. 9 10 Ο. So a cash-needs approach would apply to a municipal water utility, for example? 11 12 Α. Well, any type of municipal utility, yes. 13 Ο. All right. And what you call the utility 14 or rate-based rate-of-return methodology that's in the manual would apply to an investor-owned utility, 15 16 correct? 17 Α. An investor-owned utility, and many 18 municipalities use that method also. 19 Okay. Now, during what period of time Q. 20 were you on the editorial committee? 21 Α. Let me see. The manual was published --22 or the version I worked on was published in 2000. Ι 23 served on the committee from 1998 to, I believe, 24 2001, and the work on the manual was probably 25 consumed mostly 1999 and maybe the early part of

4762 1 2000. 2 Has the manual that you worked on been Q. 3 updated to reflect changes that have taken place in 4 the water industry? 5 Α. Yes. The manual is usually updated about 6 every ten years, and a new version came out. I don't 7 recall the publication date. I think it was 2010 or 8 2012, somewhere in that time frame. 9 Now, page 4, lines 15 through 20, you Ο. 10 identify the testimony and exhibits you reviewed to prepare your testimony. Am I correct? 11 12 Α. Yes. 13 Ο. Now, did you review for purposes of 14 preparing your testimony the state of Ohio's electric policy that is codified in Section 4928.02 of the 15 16 Ohio Revised Code? 17 Α. I don't believe so, no. 18 Did anybody impart to you the content of Ο. 19 that state policy for purposes of preparing your 20 testimony? 21 Α. Not by using that citation. I don't know 22 if I was given information that is contained in that, but no one said this is coming out of this statute or 23 24 something. 25 Q. So for purposes of your testimony,

4763 there's nothing in your testimony that is based upon 1 2 some application of what you would -- information you 3 would regard as being part of Ohio state policy to 4 the facts and circumstances of this case. 5 Α. Well, what I was advised by counsel is that --6 7 Please be careful here. Q. 8 I am. I believe I say this in the Α. testimony as well -- is that the Commission has a 9 10 policy when reviewing settlements to determine whether they are consistent with the law, obviously, 11 12 but also with established regulatory ratemaking 13 principles. So that's what I was told about the 14 relevant policy that I should be applying here; 15 essentially, do the proposed stipulations comply with 16 established rate-making principles? 17 Okay. Now, did you review -- for Q. 18 purposes of reaching the conclusions that are 19 reflected in your testimony OCC Exhibit 23, did you 20 review the PJM open access transmission tariff? 21 Α. No, not in any detail. Did you review it at all? 22 Q. 23 Over the years, I have looked at portions Α. 24 of that tariff. I did not look at anything specific 25 in that for the preparation of my testimony.

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1	Q. Okay. And what is your understanding of
2	PJM? What just very generally, what is your
3	understanding about the role and function of that
4	organization?
5	A. Sure. PJM is a regional transmission
6	organization serving, I believe, it's 13 states.
7	Their job is to oversee and regulate the bulk power
8	system, the movement of electricity from generation
9	to where the load is being served. That's pretty
10	general.
11	Q. And when you say "movement," could we
12	substitute the word "transmission" for movement?
13	A. Sure.
14	Q. Okay. And the open access transmission
15	tariff, can you give me your understanding of what is
16	contained in that tariff?
17	A. It's a very large document, and it
18	essentially sets out the terms and conditions under
19	which the transmission system operates. There are
20	portions of that tariff that are specific to
21	individual companies in the individual regions within
22	PJM. PJM calls them zones.
23	There are also general terms and
24	conditions that are part of the tariff, and included
25	in that are either rates or formulas for determining

4765 rates, for, again, I'll just generally refer to it 1 2 as, the movement of power. There are many different 3 aspects, or I should say different charges, that PJM 4 imposes for different aspects of that service. 5 Ο. And if you know, is PJM subject to the exclusive jurisdiction of the federal energy 6 7 regulatory Commission? 8 Α. You're asking me legally? 9 If you know. Ο. Sure. That's my understanding, is that the open 10 Α. access transmission tariff is a tariff approved by 11 12 the Federal Energy Regulatory Commission. 13 Ο. And relative to the split of jurisdiction 14 between the Federal Energy Regulatory Commission and 15 state regulatory authorities, like Ohio, is it your 16 understanding that the Federal Energy Regulatory 17 Commission also has exclusive jurisdiction over transmission service? 18 19 That's a more complicated question. Α. It depends on how the transmission service is defined. 20 21 Within a distribution utility, there can be elements 22 of the distribution network that are at what we would 23 think of as a transmission voltage. So there are 24 rules for determining what is state jurisdictional 25 and what is federal jurisdictional sort of at that

dividing line. When you get to distribution 1 2 voltages, that's state jurisdictional. When you get 3 to very high voltage, there's no question that's 4 federal jurisdictional. In the middle, it might 5 depend on the specific function that's being served. Okay. Now, with regard to the services 6 Ο. 7 that are identified in rider NMB, would you agree 8 that those services are subject to the exclusive 9 jurisdiction of the Federal Energy Regulatory 10 Commission? My understanding is that rider NMB is 11 Α. 12 defined as providing state jurisdictional cost 13 recovery of charges under the federal jurisdiction. 14 Okay. So with regard to my guestion, the Q. services that are identified, you would agree that 15 16 the services that are identified in rider NMB are 17 subject to the exclusive jurisdiction of FERC. 18 Well, I really answered your question. Α. Ι 19 was very careful. I answered it the best way I 20 could. Rider NMB doesn't -- as proposed by the 21 companies, does not identify individual services. It 22 talks about costs incurred by the companies from PJM or the state of Ohio. Now, I don't know what those 23 24 state of Ohio costs would be, and I don't know under 25 whose jurisdiction they would be imposed or

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4767 regulated. Certainly costs -- or charges from PJM 1 2 would be under the federal jurisdiction. 3 Did you review rider NMB for purposes of Q. 4 preparing your testimony? 5 Α. Yes. And am I correct that -- strike that. 6 Ο. 7 Did you review rider TAS for purposes of 8 preparing your testimony? 9 That one does not ring a bell, no. Α. 10 Did you review the supplier tariff for Q. 11 Ohio Edison, Cleveland Electric Illuminating Company, 12 and Toledo Edison for purposes of preparing your 13 testimony? 14 Α. Yes. Did you review FERC order -- Federal 15 Ο. 16 Energy Regulatory Commission Order 888 for purposes 17 of preparing your testimony? 18 Α. No. 19 Did you review any other Federal Energy Q. 20 Regulatory Commission orders dealing with its 21 jurisdiction over transmission service? 22 Α. It was not relevant to my testimony. No. 23 Ο. Did you review any U.S. Supreme Court 24 decisions dealing with the jurisdiction of the 25 Federal Energy Regulatory Commission over unbundled

4768 1 transmission of service? Same answer. It wasn't relevant to my 2 Α. 3 testimony. 4 At page 12, line 9 of your testimony, you Q. 5 indicated that you reviewed applicable rate What rate schedules did you review? 6 schedules. 7 I'm sorry. Page 12, line 9? Α. 8 Ο. Yes. 9 I'm sorry. I don't see that reference. Α. 10 Ο. I've obviously got an erroneous reference there. Let's skip that and we'll come back to it. 11 12 What is your understanding of the 13 function of an electric security plan? 14 I'm actually not sure. I mean, I know Α. that there's a thing called an electric security 15 16 plan, but I'm not sure who or what is supposed to be 17 secured by it. 18 Okay. With regard to customers receiving Ο. distribution service from Ohio Edison, Cleveland 19 20 Electric Illuminating Company, and Toledo Edison, 21 what entity has control over access to and use of the 22 regional high voltage transmission network? 23 Α. Sorry. Can I ask you to either restate 24 or ask the reporter to read back the question? 25 Q. Let me do it again. This will make sure

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that the right question is put. With regard to 1 2 customers receiving distribution service from Ohio 3 Edison, Cleveland Electric Illuminating Company, and 4 Toledo Edison, what entity has control over access to 5 and use of the regional high voltage transmission 6 network? 7 Okay. My understanding is that the Α. 8 transmission network within the region is owned by a FirstEnergy affiliate, ATSI, which we usually refer 9 to as ATSI. I think -- I'm trying to remember what 10 the initials stand for. I don't even remember what 11 12 they stand for. It's always just ATSI. 13 So that's the entity that owns the transmission network that serves the three 14 distribution utilities. That network is under the 15 16 control of PJM, and PJM's rates and conditions of 17 service, as we talked about, are regulated by the 18 Federal Energy Regulatory Commission. 19 Have you ever participated in a Federal Q. 20 Energy Regulatory Commission proceeding? Many years ago, yes. 21 Α. 22 Was it electric? Q. 23 Gosh, we're probably going back 25 years Α. 24 I think there were some electric and or more. 25 natural gas cases I participated in. Don't ask me

1 details. It's much too long ago. 2 Well, you provoke me to ask you details Q. 3 now, but I won't. Have you ever participated in a 4 Federal Energy Regulatory Commission proceeding 5 dealing with the rates, terms, and conditions of transmission service? 6 7 Α. If I did, it would have been 25 years 8 ago. I honestly don't remember the substance of what I dealt with back then, and that's why I asked you 9 not to ask me, because it was too long ago. 10 I didn't ask you about substance or 11 Ο. 12 details. I just asked you whether or not you 13 participated in a particular type of case. Do you 14 recall ever participating in a Federal Energy Regulatory Commission proceeding dealing with the 15 16 rates, terms and conditions associated with electric 17 transmission service? 18 I don't recall doing that. If I did, it Α. 19 would have been, as I said, 25 years ago. 20 Ο. Now, what is your understanding of which 21 customers are eligible to take transmission service pursuant to the PJM open access transmission tariff, 22 23 if you have any understanding? 24 Sure. Generally the customers are Α. 25 referred to as load-serving entities. So any --

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well, I mean, an obvious example of a load-serving 1 2 entity is a distribution utility, like the three 3 distribution companies here, but also I'll call them 4 middlemen, for lack of a better term. But the CRES, 5 the competitive energy suppliers, can be load-serving entities, so that's one category of customer. 6 7 Generation companies also are 8 transmission customers. They obviously need to move 9 the power from the power plant to the load, and they 10 use the transmission system to do that. So there are 11 also provisions of the tariff that deal with, you 12 know, transmission -- excuse me -- with 13 interconnection for generators and the terms and conditions of that service. 14 15 Ο. Are you aware of whether or not the 16 customers that are eligible to take service under the 17 PJM open access transmission tariff include retail 18 customers in states that have provided retail access? 19 Α. I don't know. 20 Q. And I assume you did not know at the time 21 you were preparing your testimony; is that correct? 22 Α. Correct. 23 Now, with regard to rider NMB, am I Ο. 24 correct that the costs that are recovered through 25 that rider are actually based upon projected costs?

4772 That's my understanding, yes. 1 Α. 2 Ο. And does rider NMB include a 3 reconciliation mechanism? 4 Α. I believe so. I don't have the tariff in 5 front of me, but I believe there is a reconciliation that's part of it. 6 And am I correct that that reconciliation 7 Ο. 8 occurs on an annual basis? 9 I believe it's -- again, without having Α. 10 the tariff in front of me, I know that there is an annual filing. I don't know if there's a provision 11 12 for intermediate filings if there's significant 13 change. I would just have to look at the tariff to 14 refresh myself on that. 15 Ο. I take it as part of your testimony, you 16 weren't asked to look at the features of rider NMB? 17 No, I was, and I did review the tariff. Α. 18 I just haven't memorized the tariff, and I don't have 19 it in front of me so I'm giving you the best answer I 20 can from my memory. Is there a reconciliation mechanism in 21 Ο. 22 the PJM open access transmission tariff, if you know? I don't know. 23 Α. 24 Now, with regard to rider NMB -- let's Ο. 25 back up.

4773 1 If I were to use the words "billing 2 determinant," would you have an understanding as to 3 what I was referring to for purposes of rate 4 structure? 5 Α. Yes. And tell me what a billing determinant 6 Ο. 7 is. 8 Billing determinant is the unit to which Α. 9 a charge applies. 10 Okay. And within the rider NMB, what are Q. the billing determinants? 11 12 Α. It depends on the customer class. For 13 customer classes with demand meters, the billing 14 determinants are demand, kilowatts. For customer classes without demand meters, rider NMB is 15 16 translated into a rate per kilowatt-hour. 17 And when you say customers with demand Q. 18 meters are billed on a demand basis, what demand is 19 used for purposes of rider NMB? Do you know what the 20 billing demand is? Do you know what the statistic 21 is? 22 That's something where I would have to Α. 23 look at the tariff to see how that's specifically 24 defined. I know that under the annual process, costs 25 are divided among the customer classes based on four

4774 coincident peak demands, but I don't know how the 1 2 billing demand is determined within a customer class 3 for a specific customer. I don't know if the four 4 coincident peaks are used for that customer or if 5 it's a monthly billing demand or an annual billing demand. I would just have to look at the tariff. 6 7 Do you have the tariff? Q. 8 Not with me, no. Α. 9 MR. RANDAZZO: Does counsel have a copy? MR. KUTIK: I do. 10 MR. SAUER: I don't. 11 12 Α. I have my computer and I have it on 13 there. 14 That's guite all right. I'm happy to Ο. 15 share. 16 MR. RANDAZZO: May I approach the 17 witness? 18 EXAMINER PRICE: You may. 19 (By Mr. Randazzo) Sir, I've handed you Q. 20 some sheets from the Cleveland Electric Illuminating tariff that I believe contain rider NMB. 21 22 Just for clarity -- first, I have that. Α. 23 Thank you. And for clarity, this is the existing 24 version of the tariff, the currently effective 25 tariff, not the proposed tariff, but, yes, I have it.

4775 Okay. Are you aware of any differences 1 Ο. 2 between the current tariff and the proposed tariff? 3 There were many differences between the Α. 4 current and proposed tariff. 5 Ο. With regard to how -- were there any differences between the billing determinants? 6 I don't believe so. 7 Α. 8 Okay. So with regard to rider NMB, does Ο. the document that I just gave you refresh your 9 recollection with regard to the billing determinants? 10 It does, but only to a limited extent. 11 Α. 12 For the customer classes that are billed based on 13 demand, it says -- excuse me. For all of them except 14 GT, it says per kW of billing demand. For GT it says per kVA of billing demand, and these particular pages 15 16 of the tariff do not define billing demand. I expect 17 that's defined elsewhere in the terms and conditions 18 of the tariff. 19 And did you attempt -- for purposes of Q. 20 drawing the conclusions in your testimony, did you 21 attempt to identify the billing demand that is used 22 for purposes of rider NMB for those rate schedules 23 that are billed using a billing demand statistic? 24 I did not. That was not relevant to my Α. 25 testimony.

4776 MR. RANDAZZO: Now, your Honors, I 1 2 believe I can shorten this up, which I know 3 immediately gets your attention. If it would be 4 appropriate to simply take administrative notice of 5 the existing supplier tariffs, the existing rate 6 schedules, the proposed rate schedules are part of 7 the record, rather than testing the witness' 8 recollection here today based upon the content of 9 those documents, and I'd ask that we do that for 10 administrative convenience if for no other reasons. 11 EXAMINER PRICE: Objections? 12 MR. SAUER: I've got -- is the supplier 13 tariff in the companies' application? 14 MR. RANDAZZO: The supplier tariff is 15 part of the tariff. 16 EXAMINER PRICE: I believe he's asking 17 for the existing supplier tariff. 18 MR. RANDAZZO: That's correct. 19 MR. SAUER: I think that's already been 20 done. 21 EXAMINER PRICE: But also rider NMB's 22 existing tariff; is that right? 23 MR. RANDAZZO: Right. And my 24 recollection is that the PJM open access tariff has 25 already been administratively noticed.

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1	EXAMINER PRICE: Yes.
2	MR. SAUER: I don't know about that.
3	EXAMINER PRICE: Certain sections.
4	Section 5 I believe has been. I'm not sure anything
5	else.
6	Well, at this time we'll go ahead to the
7	extent we haven't already taken administrative notice
8	of the supplier tariff, existing supplier tariffs of
9	the three companies, and we'll also take
10	administrative notice of the existing rider NMB
11	tariffs of the three companies.
12	MR. RANDAZZO: Thank you.
13	Q. (By Mr. Randazzo) Now, you mentioned that
14	the costs that are subject to collection through
15	rider NMB are allocated based upon four summer peaks.
16	Do you recall that?
17	A. Yes.
18	Q. And for purposes of residential
19	customers, at least, you've already discussed that
20	whatever costs are allocated to residential customers
21	are collected on a kilowatt-hour basis; is that
22	correct?
23	A. Yes.
24	Q. And based upon your comments, would it be
25	your view that the reason that the costs are

4778 collected from residential customers on a 1 2 kilowatt-hour basis is the result of the lack of 3 metering that's capable of identifying a demand 4 billing statistic? 5 Α. I think that's one of the reasons. Do you know of any other? 6 Ο. The other would be -- well, there are 7 Α. 8 actually many reasons why. 9 I'm not asking you to speculate. Ο. 10 Α. No. There are many reasons why residential customers are not billed based on demand, 11 12 even where the newer metering equipment permits that. 13 We could probably spend a couple of hours talking 14 about the pluses and minuses, but right now the 15 simple answer is the billing determinant doesn't 16 exist so the issue isn't even ripe for determination. 17 Once it becomes ripe, there will be a whole host of 18 issues about whether it's appropriate to bill residential customers based on demand rather than on 19 20 energy consumption. 21 Ο. Okay. Now, I think we agreed with this, 22 you agreed with me earlier, but the costs that are 23 subject to recovery under rider NMB are incurred by 24 Cleveland Electric Illuminating Company, Ohio Edison, 25 and Toledo Edison as a result of purchasing

transmission and transmission-related services from 1 2 the PJM open access transmission tariff; is that 3 correct? 4 I have to ask you to clarify whether Α. 5 you're talking about the existing tariff or the proposed tariff. 6 7 Ο. The existing tariff. 8 Under the existing tariff, what you just Α. stated was correct. 9 10 Q. Okay. Now, on page 12, line 7 and 8, and I think I've got this correct this time, you indicate 11 12 that an exemption from rider NMB would violate two 13 principles that you attribute to professor Bonbright, correct? 14 15 Α. Yes. 16 Now, it's been a long time since I've had Ο. a conversation with anybody about Professor 17 18 Bonbright, but I was struck by the fact that you cited his 1961 book. 19 20 That's the one I have on my bookshelf, Α. 21 and I see you have a copy in front of you, too. 22 I do. Did you know him? Q. 23 Α. No. 24 Is there anything in Professor Ο. 25 Bonbright's book dealing with the Federal Energy

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1 Regulatory Commission? 2 Α. No. The book was published, I think, in 3 1961, so it predated the Federal Energy Regulatory 4 Commission. That was the old Federal Power 5 Commission at that point. And was there anything in that book 6 Ο. dealing with unbundled transmission service and how 7 8 unbundled transmission service should be priced? 9 Α. No. That book establishes the regulatory 10 principles that I think we've all been operating 11 under or trying to operate under for the last 50-some 12 years, but it's not -- obviously, the specific 13 regulators, the specific types of service that are 14 regulated or not regulated have changed over the 15 years, but I think those fundamental principles still 16 apply. 17 Your Honor, I move to strike MR. KUTIK: 18 the answer as nonresponsive, particularly after the word "no." 19 20 MR. SAUER: Your Honor, the witness was 21 just answering the question and providing context to 22 the question. 23 EXAMINER PRICE: I don't think providing 24 context is appropriate. It's more appropriate for 25 redirect, nonetheless, I'm going to deny the motion

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4781 1 I think Mr. Randazzo asked a fairly to strike. 2 open-ended question, and the witness responded to the 3 best of his ability. 4 (By Mr. Randazzo) Would you agree also as Q. 5 we talked about with regard to the American Water Works manual that Professor Bonbright's principles 6 7 were focused on cost-based ratemaking? 8 MR. SAUER: Could I have that question 9 read back, please. 10 EXAMINER PRICE: You may. 11 MR. RANDAZZO: I'll withdraw the 12 question. 13 Ο. Now, the two principles that you 14 attribute to Professor Bonbright, am I correct that those principles are taken from the chapter of the 15 16 book dealing with rate structure? 17 I think the chapter is called Α. Yes. 18 something like Principles of a Sound Rate Structure, something like that. 19 20 And --Q. 21 Α. Sound rate design maybe. 22 Rate structure. In the ratemaking Q. 23 process, the first step is to determine revenue 24 requirements; do you agree? 25 Α. Yes.

4782 And then the next step would be to assign 1 Ο. 2 or allocate the revenue requirement to the various 3 rate schedules; is that correct? 4 Α. Yes. 5 Ο. And then the rate structure deals with 6 how you would collect the allocated or assigned costs 7 from customers, right? 8 Α. Yes. Now, other than the conversation we had 9 Ο. 10 earlier with regard to the high-load-factor provision in the settlement, again, it's my understanding you 11 12 have not attempted to quantify the impact of an 13 exemption from rider NMB on the rate structure or 14 price levels for residential customers; is that correct? 15 That's correct. I don't believe that's 16 Α. possible with the information that's available. 17 18 Now, if a customer is exempt or a CRES Ο. 19 provider can procure transmission service directly 20 from the OATT, how are they billed? 21 Α. When you say "how are they billed"? 22 How are they billed for transmission Q. service? 23 24 I don't know -- when you say "how," I Α. 25 don't know what you're asking me. I mean, are you

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1	asking who bills them?
2	Q. Well, let's start with that. Who bills
3	them?
4	A. They would be billed, I presume, by PJM.
5	I don't know I don't know the mechanics of that
6	billing, if it goes from PJM directly to the large
7	customer, if you will, or if it would go through ATSI
8	first, but ultimately it's the PJM charge getting to
9	the individual customer.
10	Q. And what is the billing determinant under
11	the PJM open access tariff?
12	A. Sure. It depends on the service. Some
13	of the PJM services are provided based on demand.
14	Some are provided based on energy consumption.
15	Q. Okay. So let's are you familiar with
16	network integration?
17	A. Yes, generally.
18	Q. Transmission service, otherwise known as
19	NITS?
20	A. I'm sorry. I interrupted your question.
21	Q. That's all right.
22	A. Yes.
23	Q. And are you aware of what the billing
24	determinant is for NITS?
25	A. That is billed on demand.

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1	Q. What demand?
2	A. I believe it's the four coincident-peak
3	demand.
4	Q. And that is the understanding that you
5	used to prepare your testimony?
6	A. No, I did not need an understanding of
7	that to prepare my testimony.
8	Q. Okay. But that's the understanding that
9	you have, that the NITS service is based upon a
10	billing determinant that looks to four peaks; is that
11	correct?
12	A. Well, the understanding I have is that it
13	is billed on demand. I believe it's called the
14	network service peak load, and then there's a peak
15	load calculation under that. I'm no expert on PJM
16	charges, believe me, so I know it's demand-based. I
17	think it's four coincident peaks, but I'm not
18	100 percent certain of that.
19	Q. But what you are certain about is that if
20	customers are exempt from paying for transmission
21	service under rider NMB, they would still pay for
22	transmission service pursuant to the PJM open access
23	transmission tariff.
24	A. Yes.
25	Q. If you know, does the open access

4785 transmission tariff encourage customers to use the 1 2 transmission system during off-peak conditions? 3 I guess I'm not sure I know what you mean Α. 4 by "encourage." That's why I'm pausing. I'm having 5 trouble with that word. If customers use the transmission system during off-peak conditions, it 6 7 will not increase most costs to the customer. Some 8 costs still would increase. If that's what you mean by encouragement, then fine. If you mean something 9 10 else, you need to tell me. Well, let me ask it this way. Does the 11 Ο. 12 PJM open access tariff send a signal to customers to 13 shift their consumption to off-peak hours? 14 For certain services, yes. Α. MR. RANDAZZO: That's all I have. 15 Thank 16 you very much. 17 EXAMINER PRICE: Thank you. 18 Mr. Kutik. 19 MR. KUTIK: Thank you, your Honor. 20 21 CROSS-EXAMINATION 22 By Mr. Kutik: 23 Good afternoon. Mr. Rubin, you're not an Q. 24 economist, correct? 25 Α. You are correct.

4786 And your degrees are in political science 1 Q. and law, correct? 2 3 Α. Yes. 4 And you've been self-employed as an Ο. 5 attorney and consultant for 21 years, correct? Α. Yes. I hadn't counted them, but that's 6 7 about right. 8 Glad to provide you with that refresher. Ο. It's almost 22, I quess. 9 Α. In your work as a self-employed attorney 10 Q. and consultant, you worked in the Pennsylvania Office 11 12 of the Consumer Advocate for more than ten years, 13 correct? 14 Α. Yes. And in your current practice as an 15 Q. 16 attorney, you represent clients before state public 17 utility commissions? 18 Yes. Α. Including the International Brotherhood 19 Q. 20 of Electric Workers, various locals? 21 Α. Yes. 22 And you represented one of those locals Q. in a matter involving Verizon Communications before 23 24 the Oregon Public Utilities Commission, did you not? 25 Α. I did, yes.

4787 1 And as a result of your work in that Ο. 2 matter, you were disciplined, were you not, by the 3 Oregon Supreme Court? 4 MR. SAUER: I'll object. 5 EXAMINER PRICE: Grounds? MR. SAUER: Outside the scope of his 6 7 testimony. 8 EXAMINER PRICE: Is that it? 9 MR. SAUER: Improper characterization of 10 his testimony. EXAMINER PRICE: I don't believe it's in 11 12 his testimony, but it certainly is a matter bearing 13 on his credibility. Overruled. 14 I was disciplined in Oregon. I don't Α. 15 believe it was by the Supreme Court. I think there's 16 a separate disciplinary authority there, but it may 17 have been the Supreme Court. I don't recall. 18 You were publicly reprimanded in that Ο. 19 case. 20 Α. Again, I don't have that in front of me. 21 It was a few years ago. I don't recall what the sanction was called. It was basically the lowest 22 23 level sanction that they have, but yes. 24 And your sanction was for violating a Ο. 25 protective order before the Public Utilities

4788 1 Commission, correct? 2 Α. Yes. And I'd be happy to explain the 3 context if you'd like it. 4 Just answer my questions, if you could, Q. 5 please. Well, I did, yes. 6 Α. 7 Ο. And Verizon filed a motion to revoke the 8 IBEW's local's intervention? 9 Α. Correct. 10 And as a result of your activities in Q. that case, that motion was granted, was it not? 11 12 Α. Well, the motion was granted and was not opposed. 13 14 Q. Thank you. 15 MR. KUTIK: May I approach, your Honor. 16 EXAMINER PRICE: You may. 17 MR. KUTIK: Your Honor, we'd like to have 18 marked as Company Exhibit 71 a document that bears 19 the caption from the Oregon Supreme Court, in the 20 matter of the Complaint as to the Conduct of Scott J. 21 Rubin, Accused, Case No. 10-148. 22 EXAMINER PRICE: So marked. 23 (EXHIBIT MARKED FOR IDENTIFICATION.) 24 Mr. Rubin, that's the order from your Ο. 25 disciplinary case, is it not?

4789 1 Α. Yes. 2 Ο. And it indicates, does it not, that the 3 court for the disciplinary body found that your 4 actions were knowing, correct? 5 Α. Yes. And it found that your actions were also 6 Ο. 7 negligent, correct? Under state of mind or mental 8 state, excuse me, on page 16. 9 Α. Yes. 10 Now, would it be fair to say that most of Q. your consultant work has been for public advocates or 11 12 consumer groups? 13 Α. Or government-owned utilities, yes. 14 And not investor-owned utilities, Ο. 15 correct? 16 Correct. Α. 17 And a substantial amount of your work has Q. 18 involved the water industry, correct? Α. 19 Yes. 20 Q. And most of your research involves the 21 water industry, correct? 22 Α. Yes. And the majority of your work as an 23 Ο. 24 expert witness has involved water utilities, correct? 25 Α. I haven't counted. The majority is more

4790 1 than 50 percent. It's substantial. I do a lot of 2 electric and natural gas work as well, but as I said, 3 I just haven't counted. 4 MR. KUTIK: Your Honor, may I approach? 5 EXAMINER PRICE: You may. Mr. Rubin, did you testify in a case 6 Ο. 7 involving Dayton Power & Light regarding its ESP 8 proposal in a case numbered 12-426-EL-SSO? 9 Yes. I mean, I haven't memorized the Α. 10 docket number, but I did testify in a Dayton SSO 11 case. 12 Mr. Rubin, does this appear to be a 0. 13 portion of the transcript to which you testified in that case? 14 15 Α. It appears to be, yes. 16 And I'd like to refer you to your Ο. 17 testimony at page 1697. 18 I have that. Are there particular line Α. 19 numbers you'd like me to read? 20 No. I will read them. Isn't it true Ο. 21 that your testimony in that case, starting at line 9, 22 was as follows: "Question: And then if you go to page 9 23 24 and you look at the testimony as an expert witness 25 section, I wanted to talk about that for a few

4791 1 minutes with you. You had 132 expert witness 2 engagements, at least that are listed on this chart. 3 Upon my count, at least 81 of those, a little over 4 61 percent, are related to water. Accept that number 5 subject to check? "Again, I don't think I'd want 6 Answer: to check it, but I agree a majority of my work as an 7 8 expert witness has involved water utilities." 9 That was your testimony then, correct? 10 Α. Yes. Now, that testimony was on March 26th, 11 Ο. 12 2013, correct? 13 Α. Yes. 14 And of that testimony or as of that Q. 15 testimony, you had testified on a couple of matters 16 relating to the Clean Air Act, correct? 17 More than a couple, I think. There were Α. 18 several. 19 And you were also involved in some fuel Q. 20 component cases, correct? 21 Α. Yes. 22 Prior to this case, you were only Q. involved in one ESP case. That was the Dayton Power 23 24 & Light case that we just spoke of, correct? 25 Α. Yes.

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1 Ο. Now, since your testimony in the Dayton 2 Power & Light SSO or ESP case, would it be fair to 3 say that none of your cases that you've been involved with as a witness relating to electric utilities have 4 5 dealt with the recovery of PJM charges? That's correct. 6 Α. And none of those cases have dealt with 7 Ο. 8 pilot programs. 9 Α. You asked me that in the deposition, and 10 I wasn't sure, and I'm still not sure today. There are a couple of cases since the Dayton case where my 11 12 work was for the staff of a state utility commission, 13 and those were pretty broad assignments. They 14 weren't limited to residential rate design, like much of my work is, and I just don't recall whether there 15 16 were pilot rates as part of those engagements. 17 Would it be fair to say that since your Ο. 18 testimony in the Dayton Power & Light ESP case, none 19 of your cases that involved electric utilities have 20 dealt with time-of-use rates? 21 Α. My answer would be the same as what I 22 just gave with pilot programs, and there I'm thinking 23 specifically about a case in Mississippi where I know 24 there were a number of tariff provisions that were 25 being proposed for modification. The utility hadn't

4793 had a base rate case in a number of years, and there 1 2 was a lot that we looked at. I don't recall what 3 actually made it into my testimony in that case, but 4 we looked at a number of different rate-design topics 5 in that case. So would it be fair to say that all but 6 Ο. 7 perhaps one or two of those cases since the Dayton 8 Power & Light ESP relating to electric utilities have not dealt with pilot programs? 9 10 Α. Yes, that would be true. And your answer would be the same with 11 Ο. 12 respect to time-of-use rates? 13 Α. Yes. 14 Now, you would not hold yourself out as Q. 15 an expert in the PJM market, correct? 16 Excuse me for a second. Yes, that's Α. 17 correct. 18 And I think you said earlier, and I just Ο. 19 want to make sure I have this right, you would not 20 hold yourself out as an expert in PJM charges, 21 correct? 22 Α. Yes. Now, for this case, you did not review 23 Ο. 24 any of the stipulations in the companies', that is, 25 FirstEnergy companies that we're talking about, prior

1 ESPs, correct?

2	A. To the best of my recollection, that's
3	correct. I know I looked at some of the tariffs and
4	Commission orders. I don't recall looking I don't
5	have a specific recollection of looking at the
6	stipulations that would have resulted in those orders
7	or tariffs.
8	Q. So would it be fair to say you don't
9	recall the substance of those stipulations, if you
10	saw them?
11	A. Correct.
12	Q. And you don't know whether as part of any
13	stipulation relating to any of the companies' prior
14	ESPs the companies had proposed new riders, correct?
15	A. Correct. Well, excuse me. With the
16	exception of, if I'm remembering right, I think rider
17	NMB came about in 2008 or 2009, somewhere in that
18	time frame, and I looked at the original I believe
19	I looked at the original version of that rider and
20	the Commission order that created it, so I have some
21	familiarity, but not with the terms of the
22	stipulation itself.
23	Q. Thank you. So the answer to my question
24	is you don't know if the prior stipulations had
25	proposed new riders, correct?

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1 Α. Correct. 2 Ο. Now, would it be also fair to say that 3 you are not familiar with the signatory parties in 4 this case, except perhaps for OCC? 5 Α. Well, signatory parties to what? I'm sorry. You're not familiar with the 6 Ο. 7 signatory parties to the stipulations in this case? 8 Α. I don't believe OCC signed any of them. 9 So let me put the question to you again, Ο. 10 which I did before. You are not familiar with any of 11 the signatory parties to the stipulations in this 12 case, correct? I don't know what you mean by "familiar." 13 Α. I know what some of those entities are. I don't know 14 what other entities are. 15 16 All right. Well, would it be fair to say Ο. 17 that you're not familiar with or have had any 18 dealings with the City of Akron in a case before any 19 regulatory body? 20 Α. To the best as I can recall, that's 21 correct. 22 You're not familiar with the City Housing Q. Network. 23 24 Correct. Α. 25 Q. You don't know what it does.

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		4796
1	Α.	Correct.
2	Q.	You don't know what kinds of customers it
3	may represen	nt.
4	Α.	I do not.
5	Q.	You're also not familiar with the
6	Consumer Pro	otection Association.
7	Α.	I am not.
8	Q.	You don't know what that entity does.
9	Α.	No.
10	Q.	And you don't know what type of customers
11	that entity	may represent.
12	Α.	Correct.
13	Q.	You're not familiar with the Council on
14	Economic Opp	portunities.
15	Α.	I am not.
16	Q.	You don't know what it does.
17	Α.	No.
18	Q.	What I said was correct?
19	Α.	That is correct.
20	Q.	And you don't know what type of customers
21	that entity	may represent.
22	Α.	Correct.
23	Q.	You're not familiar with the Citizens
24	Coalition.	
25	Α.	I am not.

4797 1 Q. And you don't know what it does. 2 Α. Correct. 3 You don't know what type of customers it Ο. 4 represents. 5 Α. You are correct again. Now, I want to talk to you about your 6 Ο. 7 definition of a pilot program which is in your 8 testimony at page 10, line 14. 9 Yes, I have that. Α. 10 Now, would it be fair to say that you can Q. 11 not point me to an Ohio case that uses your 12 definition? 13 Α. Correct. I did not look. This is a 14 definition from my experience, not from any specific citation anywhere. 15 16 MR. KUTIK: Your Honor, I move to strike 17 after the word no. 18 EXAMINER PRICE: I believe, Mr. Rubin, 19 we've given you your one fair warning, so we'll go 20 ahead and grant the motion to strike at this time. 21 Ο. In fact, would it be fair to say that you 22 are not familiar with the term "experimental rate"? 23 Α. I have not run into that term in any 24 other jurisdiction. 25 Q. So the answer to my question is yes.

4798 1 Well, when you say "familiar with the Α. 2 term," I don't know what you mean by that. I know 3 what the words mean. I have not seen that used in a 4 regulatory context in other jurisdictions in which 5 I've participated in cases. MR. KUTIK: May I approach, your Honor? 6 7 EXAMINER PRICE: You may. 8 Mr. Rubin, you recall being deposed in Q. 9 this case. 10 Α. Yes. 11 Let me hand you a copy of your Ο. 12 deposition. Before that deposition, you took an oath to tell the truth. 13 Of course. 14 Α. 15 Q. And you did tell the truth. 16 Α. Yes. 17 Now, I'd like you to look at page 71 of Q. 18 your deposition transcript, please: Well, first, is 19 this your deposition transcript? 20 I assume you've copied it correctly, yes. Α. 21 Q. Okay. It looks familiar to you. 22 It does. Α. 23 Ο. Please turn to page 71. 24 Α. I'm there. 25 Q. Let me refer you to page -- to line 9.

4799 1 Did you give the following testimony in response to 2 the following question: 3 Question: "Okay. Is, in your view, an 4 experimental rate something different than a pilot program?" 5 "I don't know. This is the only 6 Answer: 7 jurisdiction I've ever been in that uses the term 8 experimental rate so I -- I frankly don't know what 9 the Commission means by that." 10 Is that your testimony? Α. Yes. And I think it's what I just said a 11 12 couple of minutes ago, too. 13 Ο. Is it true that you do not -- you also 14 don't know if the companies have pilot programs or experimental rates? 15 16 No. I indicated to you during the Α. deposition that I was aware that there were certain 17 18 pilot rates currently in effect that the company was 19 proposing to -- or originally was proposing to 20 eliminate in this case and at least one of them is 21 now proposing not to eliminate as part of the first 22 stipulation. 23 Q. Okay. So you are aware, then, of the 24 companies' experimental rates? 25 Α. Well, you asked me about pilot rates.

1 Well, are you aware of the companies' Ο. 2 experimental rates? 3 I don't know what -- I don't know what Α. 4 that means. I don't know which of the various riders 5 are set up as, quote, unquote, pilot rates and which are set up as, quote, unquote, experimental rates or 6 7 if there's a difference between the two. 8 So would it be fair to say you don't Ο. recall seeing any tariffs that identified a rate as 9 10 an experimental rate for the companies? I don't recall. That word may be there, 11 Α. 12 but it didn't register. 13 Ο. So sitting here today, you can't recall 14 that, correct? That's correct. 15 Α. 16 Now, you would agree with me, would you Ο. 17 not, that a legitimate purpose of a pilot program 18 would be to evaluate the effects of the program on 19 nonparticipants? 20 No. I think we had this discussion Α. 21 during the deposition as well. I would say that is 22 not a purpose of a pilot program. That is something you evaluate as part of the evaluation of the costs 23 24 and benefits of a pilot program. 25 Q. So that --

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1	EXAMINER PRICE: One second, Mr. Kutik.
2	Mr. Rubin, I want to remind you though
3	that we now have the deposition, the examiners have
4	not read the deposition, so when you refer to
5	something that may have happened, we have not
6	necessarily looked at that. So just if you'd just
7	give answers to counsel's question without making
8	reference to "we covered that in the deposition," it
9	would be helpful.
10	THE WITNESS: Thank you.
11	Q. (By Mr. Kutik) So you would agree with me
12	then that a legitimate or something that should be
13	done with respect to a pilot program in terms of the
14	evaluation of that program would be to see whether
15	the program has an adverse effect on nonparticipants,
16	correct?
17	A. Yes.
18	Q. And part of the evaluation could also
19	include determining what costs there were to
20	administer the program.
21	A. Yes.
22	Q. Now, you have testified about pilot
23	programs in other jurisdictions.
24	A. I don't recall. I don't think so, but
25	there may have been one or two cases where that came

4802 1 up. 2 Do you recall testifying in the state of Q. 3 New Hampshire regarding a matter for Aquarian Water 4 Company of New Hampshire? 5 Α. I believe I've -- well, I know I've testified at least once in a case involving that 6 7 company in New Hampshire. It may have been more than 8 once. 9 0. Again, in your testimony in those cases, 10 did you testify on behalf of -- regarding pilot 11 programs? 12 Α. There was a proposed infrastructure Yes. 13 surcharge in that case that I believe was set up as a 14 pilot program. Now, going back to talking about what 15 Ο. 16 we're doing here in Ohio, you understand that for a 17 pilot rider that is introduced and approved in one 18 ESP, the decision whether to continue that rider 19 would be considered in a subsequent ESP, correct? 20 Α. That's my understanding, yes. 21 Ο. Now, I think, as you've indicated in your 22 conversation with Mr. Randazzo, you've reviewed the rider NMB tariff, correct? 23 24 Α. Yes. 25 Q. And currently the companies pay certain

4803 nonmarket-based charges associated with all the 1 2 companies' customers whether they shop or not. 3 That's my understanding. Α. 4 And you don't know whether that's always Ο. 5 been the case. Α. 6 Correct. 7 Ο. Now, you have also reviewed for purposes 8 of this case some of the companies' filings to 9 support the rider NMB rate that had been filed 10 previous to this case or maybe during this case, but not as part of this case, correct? 11 12 Α. Correct. 13 Ο. And you were aware that there is a charge 14 in rider NMB called NITS, correct? Α. 15 Yes. 16 And I saw that you indicated to Ο. 17 Mr. Randazzo what NITS was, but isn't it true that in 18 your deposition, you couldn't recall what NITS stood for? 19 20 Α. You are correct. 21 Ο. And you can't say with any detail what NITS charges detail, correct? 22 23 Α. Correct. 24 And you don't know how much of rider NMB Ο. 25 represents NITS, correct?

4804 1 Α. Not specifically, no. 2 Ο. And you don't know how PJM allocates NITS 3 charges to firms like the companies, correct? 4 Α. No, that's not correct. 5 Ο. All right. I think I discussed that with 6 Α. 7 Mr. Randazzo. 8 Let me refer you to your deposition, sir, Ο. and let me refer you specifically to page 44. 9 I'm there. 10 Α. At line 19, do you not give the following 11 Ο. 12 answer to the following question: 13 Question: "Do you know how PJM allocates 14 its NITS charges to firms like the companies?" 15 Answer: "No." 16 That's what you testified to in your 17 deposition, correct? 18 That was a correct answer at that time. Α. 19 Now, in terms of what you reviewed as Q. 20 part of your work on this case, you saw some filings, I think we indicated earlier, from the companies in 21 22 terms of the rider NMB tariff, correct? 23 Α. Yes. 24 MR. KUTIK: Your Honor, may I approach? 25 EXAMINER PRICE: You may.

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1	MR. KUTIK: Your Honor, we would like to
2	have marked at this time for identification as
3	Company Exhibit 72 a document, which begins with a
4	letter from Eileen M. Mikkelsen to Barcy McNeal,
5	Commission Secretary, dated May 1, 2015, that
6	attaches a document that's entitled "Nonmarket Based
7	Services Rider (Rider NMB) report in Support of
8	Staff's 2015 Annual Review Submitted by Ohio Edison
9	Company, the Cleveland Electric Illuminating Company,
10	and Toledo Edison Company."
11	EXAMINER PRICE: It will be so marked.
12	(EXHIBIT MARKED FOR IDENTIFICATION.)
13	Q. Mr. Rubin, I'm handing you what has been
14	marked for identification as Company Exhibit 72. Do
15	you recognize that as one of the filings that the
16	companies made in support of their rider NMB charge?
17	A. Yes.
18	Q. Now, I'd like you to look at Exhibit A,
19	page 3 of 4.
20	A. Yes, I have that.
21	Q. And that has a listing of the various
22	types of charges that are included in rider NMB,
23	correct?
24	A. Yes.
25	Q. And this, obviously, is heavily redacted,

	4806
1	correct?
2	A. It is.
3	Q. And you only saw the public versions,
4	correct?
5	A. Correct.
6	Q. And you did not ask to see the
7	confidential version, correct?
8	A. Correct.
9	Q. Now, would it be fair to say that with
10	respect to the various charges that are listed over
11	on the left-hand side of this page, you don't know
12	how any of those charges are allocated to the
13	companies?
14	A. At the time of my deposition, that was
15	correct. I have more of an understanding today than
16	I did then.
17	Q. Okay. Isn't it true that you didn't know
18	which of these charges are demand allocated versus
19	energy allocated?
20	A. At the time, that was correct. That is
21	no longer correct.
22	Q. So at the time of your testimony, that
23	was correct.
24	A. Yes.
25	Q. Okay. And you don't know a percent of

4807 the charges that are allocated based upon demand 1 2 versus the charges that are allocated based upon 3 energy? 4 Correct, I don't need that information. Α. 5 Ο. Now, in this case, Ms. Mikkelsen has testified that over 99 percent of the charges in 6 7 rider NMB are demand allocated, and you can't dispute 8 that, correct? 9 Α. I assume that's for a particular time 10 period, and I do not dispute that. And isn't it also true that you don't 11 Ο. 12 know what PLC means? 13 Α. No, that's not correct. 14 Okay. Well, let me ask you to turn to Q. your deposition, page 43. 15 16 Sure. I can save you the trouble. Α. At. 17 that time I did not know what -- you know, recall 18 what the initials stood for? Okay. And so -- well, and isn't it true 19 Q. 20 that at the time of your deposition, you didn't know 21 what the term NSPL stood for. 22 Correct. I'm not always great with Α. 23 acronyms. 24 And you don't know -- well, isn't it true Ο. 25 that you don't know if NSPL can be allocated to

4808 1 specific customers? 2 Α. I'm sorry. Could you rephrase that? 3 Sure. Isn't it true that you don't know Ο. 4 if NSPL can be allocated as a cost -- strike that. You don't know if an NSPL-allocated cost 5 can be determined for a specific customer, correct? 6 7 Α. That's not correct. 8 Okay. So NSPLs can be determined for a Ο. specific customer, correct? 9 10 Α. Yes. And PLCs can be determined for a specific 11 Ο. 12 customer, correct? 13 Α. Yes. 14 If a customer participants in the NMB Q. opt-out pilot program, the NMB services for those 15 16 customers will no longer be paid by the companies, 17 correct? 18 Α. That's correct. And the NMB cost for those customers 19 Q. 20 participating in the pilot will be paid by whatever 21 CRES provider the customers receive their retail 22 electric service from, correct? 23 Α. Yes. 24 So if customers opt out as part of this Ο. 25 pilot program, the companies' NMB costs go down, all

4809 things being equal? 1 2 Α. Yes. 3 So if a customer's costs are \$900 for the Ο. 4 NMB charges, if the customer leaves, that \$900 goes 5 away, correct, from the companies? Just to be clear, the \$900 is what the 6 Α. 7 PJM, if you will, is charging directly to the 8 customer who leaves? 9 Ο. No. That the customers' cost charged to 10 the companies before the opt-out is \$900. 11 That's where you lost me. When Α. Okay. 12 the company gets those charges from PJM, they're not 13 specific to any one customer, so I'm not sure I 14 follow you. 15 Ο. All right. Well, let me refer to your 16 deposition. Maybe you can remember that. Let me 17 refer you to page 99. Are you there? 18 Α. Yes. 19 Did you not give the following answers to Q. 20 the following questions starting at line 6. 21 Question: "Sure. Let me ask you about 22 your example, all right? You gave me an example, I 23 believe, where you said assume that the customer is 24 paying \$1000 for these charges, right?" 25 Answer: "Yes."

4810 Question: "And assume that the 1 2 customer's costs are 90 -- are \$900. That was one of 3 your examples, right?" 4 Answer. "Right." 5 Question: "And if that customer leaves, the \$900 of costs that the companies incur, that will 6 7 go away, right?" 8 Answer: "Right." 9 That was what you testified to, correct? 10 Yes, that was in context of a much longer Α. colloquy that we were having. So I understood what 11 12 you were asking me. If you're asking me the same 13 thing now, I'll give you the same answers. That's 14 easy. 15 Q. Those costs don't get paid by any other 16 customer, correct? 17 Α. Those costs do not get paid by anyone 18 else, but it does affect the rates that other 19 customers pay. 20 MR. KUTIK: Your Honor, I move to strike 21 including the word "but" and everything thereafter. 22 EXAMINER PRICE: Mr. Sauer. 23 MR. SAUER: I think the question was 24 open-ended enough that he was answering in the 25 context of the question.

4811 1 EXAMINER PRICE: I disagree. Motion to 2 strike will be granted. That's a proper matter for 3 redirect. 4 Ο. Now, if that customer that we were 5 talking about and their rider NMB payment was \$1,000, and if you could specifically identify the costs for 6 7 each customer, it would be true that everyone else's 8 rates may go up but more in line with their costs, 9 correct? 10 Α. Everyone else's rates will go up, but not necessarily more in line with their costs. 11 12 Q. Let me refer you to your deposition, page 13 100. On page 100, this was a continuation of the hypothetical, correct? 14 15 Α. Yes. 16 All right. And at the bottom of the Ο. 17 page, starting at line 23, did I not ask you the following question and did you not give the following 18 19 answer: 20 "And everyone's rates will go up more in 21 line with their costs, correct?" 22 Answer: "Well, you're assuming that we 23 can identify the costs for each customer, and we 24 can't." 25 Do you see that?

4812 I believe you left out the word 1 Α. "specifically," but yes, I see it. 2 3 Thank you. Now, you understand -- well, Q. 4 back up. With respect to a CRES provider, that as 5 part of the NMB opt-out program, the customer goes to and now receives their NMB -- are you with me so far? 6 7 Α. Yes. 8 You don't know if it would be reasonable Ο. 9 for a CRES provider who receives NMB charges that are overwhelmingly allocated on a demand basis to attempt 10 to recover that charge on a demand basis, correct? 11 12 Α. Correct. I cannot speak for the CRES 13 providers. 14 Now, you understand that the companies Q. allocate NMB charges to customers based upon four 15 16 coincident peaks, I think as you mentioned. 17 Α. To customer classes, yes. 18 Will you agree with me that four Ο. 19 coincident peaks is not the same as PLC or NSPL? 20 I don't know with certainty. I believe Α. 21 what you said is correct, but I'm not 100 percent 22 sure. 23 So for the sake of a hypothetical, PJM Ο. 24 allocates costs to the LSEs based upon NSPL, and a 25 company allocates based upon 4CP, the result would be

4813 that there would be a difference between how the 1 2 company incurred costs and how the companies allocated those costs? 3 4 Α. That would be correct. 5 Ο. Now, in terms of the phrase "load factor," you're familiar with that phrase? 6 7 Α. Yes. 8 Ο. A load factor is the ratio of average 9 energy use to peak energy use, correct? 10 Α. Yes. 11 And peak demand is not a function of load Ο. 12 factor? 13 Α. In fact, the opposite is true. Load factor is a function of peak demand, right. 14 So what I said was correct? 15 Q. 16 Α. Yes. 17 So we can have high-load-factor customers Q. 18 and low-load-factor customers have similar peak, 19 correct? 20 Α. Yes. 21 Ο. And both of those customers might pay the same for a demand-allocated and billed charge, 22 23 correct? 24 Α. Yes. 25 Q. Now, I want to talk to you a little bit

4814 about the high-load-factor, time-of-use rate. 1 То 2 your knowledge, regarding the companies' current 3 experimental time-of-use rates comes from information 4 that was provided by the companies in response to 5 discovery and the application and the testimony and not from a review of the tariffs themselves, correct? 6 I believe that's correct. I may have 7 Α. 8 looked at the tariffs, but I didn't study them in any kind of detail. 9 10 You don't believe that you looked at the Ο. tariff sheet themselves; isn't that true? 11 12 Α. I may have, but it's -- I certainly 13 relied primarily on what the company said about those 14 tariffs in testimony and discovery responses and in the application. 15 16 And that's what you relied upon for your Ο. 17 opinions in the case? Α. 18 Yes. 19 Now, would it also be fair to say that Q. 20 you cannot say that encouraging customers to have 21 their headquarters in Ohio would promote economic 22 development? Right. I would need more information to 23 Α. 24 know if the location of their headquarters makes any 25 difference.

4815 And you don't think that incentivizing 1 Ο. 2 companies to establish a headquarters in Ohio would 3 promote job growth here, correct? 4 Α. Correct. Well, I don't know without more 5 information. There are -- yeah, there are companies in Ohio that cut jobs in Ohio and there are companies 6 7 in Ohio that create jobs in Ohio. 8 MR. KUTIK: Move to strike, your Honor. 9 EXAMINER PRICE: The entire thing? 10 MR. KUTIK: Yes, it was a "yes" or "no" I'm not sure I got a "yes" or a "no." 11 answer. 12 EXAMINER PRICE: You didn't get yes or 13 no. We will grant the motion to strike and direct 14 the witness to explain yes or no. 15 Ο. Do you need the question again, sir? 16 No, I have the question. I believe my Α. 17 answer was I need more information to answer that 18 question. 19 So you cannot say that, correct? Ο. 20 Not without more information. Α. 21 Ο. Now, you understand that there are 22 commercial companies or customers other than grocery stores that might have refrigeration as a major part 23 24 of their load, correct? 25 Α. Certainly.

4816 And you understand that to participate in 1 Ο. 2 the high-load-factor and time-of-use pilot program, a 3 customer does not have to put all of its accounts 4 into the program, correct? I believe the minimum is 30. 5 Α. So the answer to my question is yes. 6 Ο. 7 Α. I don't know. 8 All right. Q. 9 It's not specifically stated in the Α. 10 second stipulation or second supplemental stipulation. It says the customer has to have at 11 12 least 30 accounts. It doesn't say whether all of 13 them have to be placed in the program or not. 14 EXAMINER PRICE: Mr. Kutik, please be careful to let the witness finish the answer to your 15 16 question. 17 MR. KUTIK: Thank you, your Honor. Ι 18 didn't realize I was doing that. 19 Mr. Rubin, may I refer you to page 91 of Q. 20 your deposition. 21 Α. I have it. 22 Now, Mr. Rubin, did you not answer the Q. 23 following question in the following way starting at 24 line 8. 25 Question: "Now, as you understand this

experimental high load factor, time-of-use rate proposal, if a customer is eligible and participates in the program, is the customer required to put all accounts for that customer into the program?" Answer: "As far as I can tell, no." That was your deposition testimony, correct? Well, it was, and I think we had some Α. further discussion after that, and at that point, you weren't allowing me to look at the terms of the stipulation itself so I was doing the best I could from memory. Since then, I've had a chance to review that provision several times, and I believe Ms. Mikkelsen testified on a very similar issue a couple of weeks ago so I have a better recollection today than I did then. So I think, but I'm not sure, that a customer would have to place all of its

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accounts under the rider, but I don't know because 19 20 there isn't -- there aren't words on that in the stipulation one way or the other. 21 22 MR. KUTIK: Your Honor, I move to strike

after the word "was" in the first sentence. 23 24 EXAMINER PRICE: Mr. Sauer? 25 MR. SAUER: He's just providing his

4818 understanding of the stipulation. 1 2 MR. KUTIK: I asked if that was his 3 testimony. He said it was. 4 EXAMINER PRICE: We will grant the motion 5 to strike. And, again, Mr. Rubin, Mr. Sauer will 6 have an opportunity to ask on redirect any additional 7 8 information that you'd like to share with the Commission. 9 10 Ο. Now, would it also be fair to say, Mr. Rubin, that you're not aware of any time-of-use 11 12 rates being offered by CRES providers to retail 13 customers? 14 Α. Correct. 15 Q. And time-of-use rates may provide price 16 signals that allow customers to modify their behavior 17 or usage. You agree with that, correct? 18 They may, yes. Α. And to the extent that time-of-use rates 19 Q. 20 can be certain or stable, they may help customers 21 better estimate the amount of savings that they may 22 obtain by changing their behavior or usage, correct? 23 Α. Yes. 24 And any differences with respect to the 0. 25 proposal here between the cost to serve customers

4819 under the experimental high-load-factor, time-of-use 1 2 rate and the revenue collected under that rider would 3 be collected under Rider GCR. You understand that, 4 correct? That's what Ms. Mikkelsen said. That's 5 Α. not in the stipulation. 6 7 Ο. That's your understanding, correct? 8 I just gave you my understanding. She Α. 9 made that statement. That statement does not appear 10 in the stipulation. All right. So the answer to my question 11 Ο. 12 is yes, correct? 13 Α. No, sir. The answer to your question is it will be up to the Commission to decide. 14 Ms. Mikkelsen said that is what she believes will 15 16 happen. That is not stated one way or the other in 17 the stipulation. 18 That is your understanding of what will Ο. 19 happen, though, correct? 20 My understanding is that the Commission Α. 21 will decide what happens. I gave you my 22 understanding of what the stipulation says and my understanding of what the companies' witness has 23 24 testified to. 25 Q. All right. Let me then refer you to your

4820 1 deposition again, sir, page 106. Are you there? 2 Α. Yes. 3 And I'd like you to refer to page 21, and Q. 4 did you not give the following answers to the following questions: 5 "And any -- apart from administrative 6 7 costs any overcollection or undercollection of the 8 companies' costs to supply retail electric service to participating customers will be either credited or 9 10 charged through another rider, correct?" 11 Answer: "Yes." 12 Question: "And do you know what that other rider is?" 13 Answer: "GCR." 14 15 That was your testimony, correct? 16 Α. That is what I said in the context of the 17 deposition. 18 Thank you. Q. Excuse me. Can I finish? 19 Α. 20 Q. I thought you were because that was 21 responsive to my question. 22 Α. No. In the context of the deposition 23 where on that issue it begins on line 6 at page 106, 24 where you're asking me -- sorry. Well, the guestion 25 starts on line 6. The real question begins on line

4821 12 where you say, "Is it your understanding that the 1 companies propose," and that is what the companies 2 3 propose, and what I'm saying is what actually happens 4 will be up to the Commission to determine. 5 MR. KUTIK: Your Honor, I move to strike everything after my interruption. 6 7 EXAMINER PRICE: We will grant the motion 8 to strike everything after your interruption, and I 9 will also ask you not to be argumentative with the 10 witness. Now, it's your understanding that Rider 11 Ο. 12 GCR is bypassable, correct? 13 Α. Except under certain circumstances, yes. 14 And so only nonshopping customers pay Q. Rider GCR unless those certain conditions happen, 15 16 correct? 17 Α. Correct. 18 And this would include participants under Ο. 19 the experimental high-load-factor, time-of-use rate, 20 correct? 21 Α. Yes, those participants, if any, would be 22 nonshopping customers. 23 Ο. Now, you would also agree with me that a 24 high percentage of residential customers shop, 25 correct?

4822 I don't know the number of customers. 1 Α. Ι 2 have a pretty good idea of the percentage of 3 residential energy usage, but not number of 4 customers. 5 0. Let me refer you to your deposition, sir, page 50. Are you there, sir? 6 7 Α. Yes. 8 And did you not give the following answer Ο. to the following question beginning at line 17. 9 10 Question: "Okay. But you do understand that certainly the large percentage of the companies' 11 12 customers' load is supplied by providers, correct?" You said, "Yes. And it looks like I was 13 a little low when I said two-thirds." 14 Yeah, that was a question about load, not 15 Α. 16 customers. 17 Q. Fair enough. 18 I believe just before that you had asked Α. 19 me about customers, and I gave you the same answer. 20 Q. Fair enough. Now, is it true that 21 nonshopping residential customers include so-called 22 PIP customers? I think so. I don't know that 23 Α. 24 specifically, but I think that's correct. 25 Q. And would it be fair to say that you

4823 1 don't know if PIP customers' load may be shopped as 2 part of a separate Ohio government agency-run 3 competitive bidding process? 4 Α. I do not know. 5 Ο. Now, part of the proposed rate structure for this rider includes a capacity charge and an 6 7 energy charge, correct? Excuse me. For which rider? 8 Α. 9 Ο. The rider we've been talking about, the 10 high-load-factor, time-of-use rider. Okay. Yes. 11 Α. 12 Q. And you are aware that there is a 13 capacity market in PJM, are you not? 14 Α. Yes. 15 Q. And PJM procures and provides the 16 capacity in that market. 17 Α. Yes. 18 Suppliers get a certain payment for their Q. capacity, correct? 19 20 Α. Yes. 21 Ο. And load-serving entities have to make a certain payment to PJM for that capacity. 22 23 Α. Correct. 24 And would it be also true to say you Ο. 25 don't know what those payments have been?

4824 I have a rough idea what they have been 1 Α. 2 and what they will be over the next couple of years. 3 Okay. You didn't know that at the time Q. 4 of your deposition; isn't that true? 5 Α. Correct, I did not. And you don't know what capacity costs 6 Ο. 7 have been at any -- for any part for the last five 8 years. 9 Α. That was true then. That is not true 10 now. And you don't know how capacity rates 11 Ο. 12 proposed by the experimental high-load factor, you 13 don't know whether that is higher or lower than the 14 capacity costs over the last five years, correct? 15 Α. Well, my answer is the same. I did not 16 know when my testimony was prepared or at the time of 17 the deposition. I have some understanding of that 18 now. 19 Right. And you hadn't made that Q. 20 comparison for purposes of writing your testimony, 21 correct? 22 Α. Correct. And you don't know whether capacity is 23 Ο. 24 procured by PJM for the entire RTO or independently 25 for each area within PJM like ATSI.

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1	A. Again, I did not know that at the time of
2	the deposition. I have some understanding of that
3	now.
4	Q. Okay. So you didn't know it when you
5	wrote your testimony.
6	A. I didn't need to, correct.
7	Q. You don't know whether capacities
8	procured by PJM is done based upon historical peak or
9	forecasted peak?
10	A. Correct.
11	Q. And you don't know if capacity procured
12	for the companies is based upon the PJM peak or the
13	ATSI peak, correct?
14	A. I'm sorry. Could you say that again?
15	Q. Sure. You don't had know if capacity
16	procured for the companies is based upon PJM peak or
17	ATSI peak?
18	A. When you say "procured for the
19	companies," I'm not sure I know what you mean.
20	Q. So you can't answer my question?
21	A. Not the way you stated it, no.
22	Q. Fair enough. Would it be fair to say
23	that you don't know if PJM and ATSI had peaks at the
24	same time in 2013?
25	A. That is not correct.

4826 1 You believe that they occurred on the Q. 2 same day? 3 I believed they occurred the same day but Α. 4 in different hours. 5 Ο. And would it be fair to say that you cannot tell me what the 2014 PJM peak day was? 6 7 Α. Correct. 8 Q. Or the five highest peaks? 9 Α. Correct. 10 Ο. And you can't tell me when the PJM peaks were in 2013. 11 12 Α. You said PJM peaks. 13 Q. Yes. 14 You used the plural. Α. 15 Q. Yes. 16 I'm not sure what you're referring to. Α. 17 Can you tell me when the five highest Q. peaks were in PJM for 2013? 18 19 Α. No. 20 And would it be fair to say that you Q. 21 don't know whether PJM ever had a summer peak in the 22 last five years that did not fall between noon and 6:00 p.m.? 23 24 For PJM as a whole, I don't know. Α. 25 Q. Okay. And isn't it true that you don't

4827 know whether ATSI ever had a summer peak in the last 1 2 five years that did not fall between noon and 3 6:00 p.m.? 4 Α. I do know that. I discussed that in my 5 testimony. Now, you don't know how capacity costs 6 Ο. 7 are assigned to each LSE, correct? 8 Α. Correct. 9 Ο. And you don't know what a base residual auction is. 10 11 I have some understanding of that. Α. 12 Q. You didn't know at the time of your 13 deposition, did you? 14 Α. Correct. All right. And you don't know -- and you 15 Q. 16 didn't know whether that had anything to do with 17 capacity prices charged to LSEs in PJM, correct? 18 Α. I did not know then. I have some 19 understanding of that now. 20 Okay. And you didn't know the difference Q. between a base residual auction and an incremental 21 22 auction, correct? 23 My answer is the same. I did not know Α. 24 then. I have some understanding now. 25 Q. And you don't believe that capacity costs

4828 1 that would be allocated to ATSI could be projected 2 during ESP IV? 3 Could you say that again? Α. 4 Sure. Isn't it true that you don't Ο. 5 believe that capacity costs that would be allocated 6 to ATSI, what the charges would be, could be 7 projected during ESP IV? 8 I mean, we have some preliminary Α. indications, but those numbers will change each year. 9 10 Q. Okay. So I don't know what you mean by 11 Α. 12 "projected." I mean, there have been PJM auctions. 13 We know some of the numbers, but there are more auctions to come. 14 15 Ο. Isn't it true that you believe that 16 capacity auction is only held a year ahead in PJM? 17 Α. That is not what I believe today. I said 18 something like that, but I wasn't sure, I think, in 19 my deposition. I have a better understanding now 20 than I did then. 21 Ο. Let me refer you to your deposition 22 testimony, sir, page 81. Are you there, sir? 23 Α. Yes. 24 And on line 5, did you not respond to the Ο. 25 following question the following way:

4829 Question: "So it's your understanding 1 2 that the PJM auction that's held is done a year 3 ahead, correct?" 4 Answer: "I believe so, yes." 5 Α. On page 81, line 5? I'm sorry. I don't see that. 6 7 82. I'm sorry, line 5. Ο. 8 Okay, I'm with you. Α. 9 Ο. Let me start again. Was it your testimony as follows: 10 Question: "So it's your understanding 11 12 that the PJM auction that's held is done a year 13 ahead, correct?" 14 Answer: "I believe so, yes. And, again, I think we have been making it clear I am no expert 15 16 on PJM. I mean, we are going by my general 17 understanding and recollection of things I may have 18 read several years ago." 19 That was your deposition testimony, 20 correct? 21 Α. It was. 22 Now, isn't it also true that you believed Q. 23 that only part of the PJM capacity costs for the ESP 24 IV period would be known right now? 25 Α. I'm sorry, I'm just not clear on the

4830 question. Were you asking me what I thought then or 1 2 what I think now? 3 Well, how about then when you wrote your Q. 4 testimony? 5 Α. When I wrote my testimony, this issue was irrelevant, not something I needed to know. So I 6 didn't have an understanding one way or the other. 7 8 Well, isn't it true that at your Q. 9 deposition, you only believed that part of PJM 10 capacity costs for the ESP IV period would be known 11 right now? 12 Α. That is what I said, and that is correct. 13 Ο. Now, you have a general understanding of 14 the process by which the companies supply SSO load, correct? 15 16 Α. Yes. 17 And there is an auction process used to Q. 18 select suppliers who will make a commitment to supply 19 SSO load for a particular time period, correct? 20 Α. Yes. 21 Ο. And you don't know what that period is, 22 correct? Sir, what period is? 23 Α. 24 The period that the SSO supply will be Ο. 25 provided.

4831 1 I'm sorry. I mean, the SSO supply will Α. 2 be provided during the ESP period. I thought that's 3 what you just asked me. 4 And is it your view that an SSO supplier Q. 5 that bids into the competitive bidding process supplies SSO load for the entire ESP period; is that 6 7 your testimony? 8 Α. There are different pieces of the No. 9 auction process. 10 Let me refer you to page 52 of your Q. deposition, sir. 11 12 Α. I have it. 13 Ο. Did you not testify as follows starting at line 13: 14 Question: "Do you know how the companies 15 16 supply the SSO load?" Answer: "I have a general understanding 17 18 of the process." Question: "What's your understanding?" 19 20 Answer: "There is a -- an auction 21 process that is used to select suppliers who will --22 sorry, who make a commitment to supply the SSO load 23 for a, you know, particular time period." 24 Question: "Okay. And do you know what 25 that time period is?"

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1	Answer: "No."
2	That was your deposition testimony,
3	correct?
4	A. Yes, it was.
5	Q. Now, you have an understanding that there
6	is a contract that ultimately is entered between
7	winning bidders and the companies with respect to the
8	SSO supply, correct?
9	A. Yes.
10	Q. And you haven't reviewed that contract to
11	understand its price terms, correct?
12	A. Correct.
13	Q. And you don't know if the price paid to
14	winning bidders is a single price or a separate price
15	for energy or for capacity, correct?
16	A. I just said I was not familiar with the
17	specific terms of the contract. All the reporting I
18	have seen by the companies states a price per
19	megawatt-hour or per kilowatt-hour. I don't know if
20	they're reporting what they actually pay or if
21	they're reporting an average.
22	Q. So the answer is you don't know, correct?
23	A. I just explained the extent of my
24	knowledge, that a company reports a price per energy
25	unit. I don't know how the company comes up with

that price per energy unit. 1 2 Again, so you don't know if the contract Q. 3 calls out a single price or a separate price for 4 energy and a separate price for capacity, correct, 5 could you tell? MR. SAUER: Objection, asked and 6 7 answered. 8 You don't know whether the price paid by Ο. a winning bidder is a single price for a delivery 9 period or whether it varies, correct? 10 Α. 11 Correct. 12 Q. And you understand that the companies 13 seek to recover the costs paid to wholesale suppliers 14 for SSO load through rider GEN, correct? 15 Α. Yes. 16 And you haven't reviewed rider GEN rates Ο. 17 offered during ESP III, correct? 18 Α. Correct. 19 And you don't know how often rider GEN Q. 20 changes, correct? 21 Α. Correct. 22 Q. And you understand that the price that 23 the companies pay for SSO load does not vary with the 24 LMP on a particular day, correct? 25 Α. That is correct.

4834 1 And you have not compared the companies' Ο. proposed high-load-factor, time-of-use, on-peak rates 2 3 with an average LMP for the summer hours in any year, 4 correct? 5 Α. Correct. And the dates -- and I'm referring now to 6 Ο. 7 your attachment SJR-4. 8 I have it, yes. Α. 9 You would agree with me that the dates Ο. 10 shown on attachment SJR-4 were not picked at random? 11 Α. Correct. 12 Q. And it wouldn't surprise you to know that 13 this shows the highest LMP for ATSI in the last five years was on July 18, 2013? 14 15 Α. Correct. 16 MR. KUTIK: May I approach, your Honor? 17 EXAMINER PRICE: You may. 18 MR. KUTIK: Your Honor, at this time we'd 19 like to have marked as Company Exhibit 73 a 20 multi-page document entitled "Week of July 15th, 21 2013, PJM RTO Operations & Markets, MRC Meeting 22 August 29, 2015." 23 EXAMINER PRICE: It will be so marked. 24 (EXHIBIT MARKED FOR IDENTIFICATION.) 25 MR. KUTIK: May I approach?

4835 1 EXAMINER PRICE: You may. 2 Mr. Rubin, I'm handing you what has been Q. 3 marked for identification as Company Exhibit 73. 4 Mr. Rubin, you've seen that document before, correct? 5 Α. Yes. And this is a document that you relied 6 Ο. 7 upon and cited in your testimony on page 22 in your 8 footnote 13, correct? 9 Α. Yes. 10 And as far as you know, this was prepared Q. by individuals working in PJM's organization? 11 12 Α. Yes. 13 Ο. And it's an attempt by the individuals at PJM to outline the events that occurred within PJM. 14 During the week of July 15th, 2013, yes. 15 Α. 16 And this is a document to help you Ο. 17 understand what was happening that week, correct? 18 Α. Yes. 19 MR. KUTIK: May I have a minute, your 20 Honor. 21 EXAMINER PRICE: You may. 22 MR. KUTIK: I have no further questions. 23 Thank you. 24 EXAMINER PRICE: Thank you. 25 Mr. Parram.

4836 1 MR. PARRAM: No questions. 2 EXAMINER PRICE: Mr. Kurtz. 3 MR. KURTZ: Thank you, your Honor. 4 5 CROSS-EXAMINATION 6 By Mr. Kurtz: 7 Mr. Rubin, I just want to ask you about Ο. 8 the rider NMB opt-out option, okay? 9 Α. Sure. 10 Now, you understand that the pilot Ο. 11 program is where customers of these various 12 organizations could choose to buy transmission 13 service directly from -- through their CRES directly 14 from PJM instead of buying the same service from the 15 utility? 16 In general terms, yes. Α. 17 Okay. Right now --Q. 18 Excuse me. Could you use your Α. 19 microphone. 20 Sorry. Okay. Let's just back up, sort Ο. 21 of big picture. ATSI is the transmission provider 22 for the three utilities; is that correct? 23 Α. Yes. 24 Okay. ATSI also provides transmission Ο. 25 service to other load-serving entities within its

4837 footprint, Cleveland Municipal Power and Light, 1 2 whatever the muni system is, and other load-serving 3 entities that need transmission; is that correct? 4 To my understanding, yes. Α. 5 Ο. Okay. And you were asked a lot of questions about how PJM -- how PJM/ATSI allocates the 6 7 transmission costs to the load-serving entities, 8 including the three operating utilities, correct? 9 Α. I was. 10 Okay. Now, you never said, but that's on Q. a single-hour basis. Did you know that? 11 12 Α. I don't know the details of that calculation. 13 14 Let me ask you, do you know that for Q. 15 capacity purposes, it's the five PLC, that's how 16 capacity generation, capacity costs are allocated. 17 Were you aware of that? 18 My answer is the same. I don't know the Α. details of those allocations. 19 20 Okay. So let's assume that ATSI Ο. 21 allocates transmission costs -- first of all, nothing 22 that we do in this hearing room or nothing related to 23 this issue will change ATSI's revenue requirement, 24 correct? Its costs of providing transmission service 25 won't change. We're just talking about allocations

1 of who pays, correct? 2 Α. Sure. We're talking about retail tariff 3 provisions. 4 Ο. So the three utilities here buy 5 transmission service from ATSI based upon -- let's 6 just assume based upon their single -- their demand 7 during the ATSI load season single highest hour for 8 any year. First, do you know that to be true or not? 9 I don't know. Α. 10 Q. Now, if a customer -- you've postulated 11 that the type of customer that would want to buy 12 transmission service directly from PJM by opting out would be a low-load-factor customer; is that correct? 13 14 Α. Yes. 15 Ο. You've made an assumption that a lot of 16 these transmission expenses must be allocated on 17 energy from ATSI to the load-serving entities, and, 18 therefore, the low-load-factor customer would have to 19 pay less because they have low energy usage relative 20 to their peak demand. Isn't that what you assumed 21 would be the motivating factor? 22 No, I did not assume that a lot of the Α. 23 costs would be energy related. I assumed that at 24 least some of the costs would be energy related, 25 especially under the proposed changes the company is

making to rider NMB. 1 Well, you indicated that Ms. Mikkelsen 2 Q. 3 testified that 99 percent of the transmission costs 4 are demand related and one percent are energy 5 related. Do you recall that? MR. SAUER: Objection. Mischaracterizes 6 7 his testimony. 8 Explain to me where I'm wrong if I Ο. mischaracterized. 9 10 In my understanding, without having it in Α. front of me, is she was talking about what had been 11 12 done historically. The company is proposing changes 13 to rider NMB. One of those changes is to include 14 emergency energy in rider NMB that's not in there 15 today. That's an energy allocation. I don't know 16 how big emergency energy will be. I don't know if it 17 will be a lot or a little, but it changes the picture of what's in rider NMB and how it's allocated. 18 19 Do you think that the ATSI transmission Q. 20 costs will be allocated differently to the three utilities versus Cleveland Public Power versus a CRES 21 22 provider versus anybody else, or do you think that the allocation of ATSI costs will be the same? 23 24 Sir, you're asking about ATSI costs or Α. 25 all PJM costs?

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4840 The ATSI transmission costs that we're 1 Ο. 2 talking about here. Let me -- the ATSI transmission 3 costs that we're talking about here. PJM/ATSI will 4 allocate those to all load-serving entities the same; 5 isn't that right? Using the same allocation methods, sure. 6 Α. 7 The way I understood your testimony is Q. 8 you said you essentially concluded that the only 9 reason a customer would choose the opt-out is to save 10 money, correct? That's a legitimate assumption. Isn't that what you assumed? 11 12 Α. Yes. 13 Ο. And you assumed the motivating factor or 14 the type of customer would be a low-load customer who 15 would want to buy transmission service directly; 16 isn't that what you conclude? 17 Α. Yes. For a customer to save money, they 18 would have to pay less directly to PJM than they pay 19 under the current allocation method that's used, and 20 I gave, you know, in my mind a prime example of that 21 was a low-load-factor customer. 22 Ο. Do you understand that load factor really 23 has nothing to do with how their costs are going to 24 be allocated? It's where they fall in that 25 single-hour peak when PJM allocates the ATSI

1 transmission costs. Do you understand that? 2 Α. Well, you're talking about the 3 transmission component of all the costs that would be 4 allocated under rider NMB, and on that component, you 5 are correct. And that's the vast majority of the 6 Ο. 7 components, isn't it? 8 Today, that's true. I don't know that Α. 9 that would be true under the proposed changes the 10 company is -- sorry -- under the changes the company is proposing in rider NMB. 11 12 Ο. Do you recognize that there's no 13 quarantee if a customer chooses to buy transmission 14 service directly that they're going to save money versus buying it from the utility under rider NMB? 15 16 Well, there's no guarantee, but we're Α. 17 talking about very large, sophisticated companies 18 that presumably know what they're doing and aren't 19 going to make stupid decisions. I may be wrong. 20 Maybe they will make stupid decisions. 21 But, you know, the assumption that they 22 would have to be making is that they will save money if they buy these services from their CRES rather 23 24 than having them allocated through the method the 25 companies use.

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1	Q. If the vast majority of the costs are
2	based upon your usage during a single hour in the
3	year, even a large, sophisticated customer might not
4	be able to predict that; do you agree?
5	A. Well, you're asking me how one of your
6	clients is going to make a decision, and I don't know
7	that. All I gave you the best I could in my
8	testimony, and I'm trying to do that today, but when
9	you ask me how a particular customer is going to make
10	a decision, you know them a lot better than I do. I
11	don't know.
12	Q. Let's assume that the Commission approves
13	the pilot and allows certain customers to buy
14	transmission directly from PJM. Isn't that by
15	definition a cost-of-service rate if the customer
16	pays exactly what PJM tells them is their cost
17	responsibility?
18	A. Well, to that customer, that would be
19	true. I'm concerned about all the customers who
20	aren't being given that choice, and who are still
21	having their rates determined based on the allocation
22	method that's in rider NMB and whether they will be
23	disadvantaged by allowing a few customers to opt out
24	of that averaging process.
25	Q. But you just agreed that the customers

4	8	4	3
4	0	4	0

who pay exactly what PJM says they're supposed to pay 1 2 is a cost-of-service rate by definition, correct? 3 To those individual customers, yes. Α. But 4 what about everybody else, is what I'm saying? 5 Ο. Well, if the customer pays exactly what 6 PJM says they should pay, which is a cost-of-service 7 rate, you're saying, no, they should be put back in 8 the utility bundle to subsidize the other customers? 9 Α. No. What I'm saying is that when you 10 allow a few customers to pull out of a rate-setting method and you don't give anybody else that option, 11 12 you're being unfair. The only customers who will 13 pull out of that option are those who think they can 14 save money. That will raise the rates to everybody else who's left, some of whom might have been able to 15 16 save even more money than the customers who were 17 given the option of pulling out. So, you know, we're 18 not talking about somebody subsidizing somebody else. 19 We're talking about basic fairness. 20 Well, isn't it fair that a customer in Ο. 21 this pilot who pays exactly what PJM says they're 22 supposed to pay, what's unfair about -- what's unfair 23 about that as to that particular customer? 24 As to that customer, that's fine. Α. The

25 problem is the effect that has on all the customers

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1 who weren't given that option. Okay. They're still 2 stuck with the way things are being done today, and 3 some of them are being disadvantaged more than the 4 customers who were being given the option.

Q. And if the customer who buys transmission directly from PJM pays more than they otherwise would have paid, that will benefit the remaining customers, correct?

9 A. Well, for that one period, and then the 10 customer can opt out and go back. So they're given 11 the option to go ahead and try it, but if you 12 don't -- if you don't like the result, if you 13 calculated wrong, you can come back. So it's --

Q. Isn't that the nature of a pilot program, for the Commission to gather data of allowing customers to buy directly from PJM and pay exactly what PJM says they're supposed to pay and determine how that works?

19 Well, you asked me about the nature of a Α. 20 pilot program. This, in my opinion, is not 21 structured the way a pilot program is normally 22 structured. Usually there are some criteria for 23 participation based on a customer's characteristics, 24 not a customer's membership in a particular 25 organization. There are evaluation criteria. It's

4845 1 open to all customers who meet certain qualifications 2 as to size or whatever, and that's not how this is 3 structured at all. 4 EXAMINER PRICE: When you speak of your 5 definition of a pilot program, that is your own personal definition of a pilot program and does not 6 7 necessarily reflect pilot programs OCC may have 8 entered into; isn't that true? 9 THE WITNESS: That's true. I'm basing it 10 on my experience, not on what OCC or the Commission may have said. 11 12 EXAMINER PRICE: This is not OCC's 13 position what a pilot program is, it's your position? 14 THE WITNESS: OCC will have to speak for 15 itself. I'm giving you my definition of what a pilot 16 program is based on 30-plus years of doing this. EXAMINER PRICE: It wouldn't shock you 17 18 agree if OCC agreed to pilot programs that didn't 19 meet your criteria? 20 THE WITNESS: I have no idea one way or 21 the other. 22 EXAMINER PRICE: Thank you. 23 Q. Well, what type of data -- if the 24 Commission approves this pilot program, what type of 25 data should the companies collect and keep track of

in order so the Commission can make an informed 1 2 decision as to how the pilot is operated? 3 I honestly don't know because I don't Α. 4 know what's being tested here. You're giving a few 5 customers the option of trying to save some money if 6 they think they can. I guess you would measure 7 whether they were successful in saving money. I 8 don't know if it would be possible, it might be, to go back and determine what the rates to other 9 10 customers would have looked like if the pilot hadn't 11 occurred. 12 That's not much of a test. It's like you 13 pulled out thinking you could save money. Did you or 14 didn't you? I don't know what that's telling us. Is 15 that telling us we should give 100 additional 16 customers the same opportunity or not? I don't know 17 what the criteria are. 18 Are those the best parameters of a study, Ο. 19 issues you can come up with? 20 Α. As I said, it's not my program. I didn't 21 design it. I'm not sure what the purpose is. From 22 what I read, that's about the best I can figure out 23 from this. It's designed to allow a few customers to 24 save money. The only thing to measure is whether 25 they were successful in doing that and whether it had

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4847 1 an impact on other customers. 2 Had the opportunity to save by paying a Q. 3 pure cost-of-service rate as determined by PJM, 4 correct? 5 Α. Yes, as opposed to a cost-of-service rate determined under the tariff. 6 7 MR. KUTIK: Thank you, your Honor. 8 EXAMINER PRICE: Mr. McNamee? 9 MR. MCNAMEE: No questions. Thank you. 10 EXAMINER PRICE: Mr. Sauer? 11 MR. SAUER: Can we have a few minutes? 12 MR. KUTIK: I don't know if Mr. Parram 13 has any questions. 14 MR. PARRAM: I don't have any questions. EXAMINER PRICE: Let's go off the record. 15 16 (Discussion off the record.) 17 MR. SAUER: A few questions, your Honor. 18 Thank you. 19 20 REDIRECT EXAMINATION 21 By Mr. Sauer: 22 Mr. Rubin, you were asked quite a few Q. questions about PJM charges and whether you looked at 23 24 those with any great detail. Can you explain why you 25 didn't review those charges in great detail?

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1	A. Sure. The specific details of those
2	charges was not something that was relevant to me or,
3	frankly, is relevant to rider NMB or whether
4	somebody's exempt from the rider or not. Whatever
5	PJM charges the companies for the elements of rider
6	NMB is going to go into that charge, so it didn't
7	matter to me specifically how each of those elements
8	were calculated.
9	The companies had been asked in discovery
10	whether all of those charges were demand related or
11	whether some were energy related. Their response was
12	that there was a mixture. Some were demand related,
13	some were energy related. That was all of the
14	information that I considered relevant in sorry
15	in assessing whether the proposed opt-out from rider
16	NMB would be reasonable and whether it might have an
17	impact on other customers.
10	

Thank you. You were asked by the 18 Q. 19 companies about a document that was put before you from the state of Oregon regarding a situation in a 20 case you were involved in; is that correct? 21 22 Α. Yes. And what was your capacity in that case 23 Q. 24 in Oregon?

25

A. I was an out-of-state attorney working

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1 with local counsel.

2 Q. And what were the circumstances of that 3 situation?

4 Α. Sure. We had received a document from 5 one of the utilities in that case that was marked 6 confidential but that had a page of information that 7 listed as its source filings with the Securities and 8 Exchange Commission. We used information from that 9 page in another proceeding. The companies objected 10 in Oregon claiming that we violated the protective agreement by pulling public information out of a 11 12 document marked confidential.

13 The Oregon Commission and ultimately the 14 Oregon Supreme Court agreed with the companies' 15 interpretation, so that was technically a violation 16 of the protective agreement. We shouldn't have used 17 anything out of that document without first going 18 through the process of getting the public information 19 removed from the protective order. The procedure in 20 Oregon was not that the companies had to file a 21 redacted version. So all we had was this one 22 document marked confidential, but with a mix of 23 confidential and public information in it. 24 So I was -- I agreed to a reprimand from

25 the Court in Oregon, and so be it. I mean, my client

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1	was removed as a party to the case, but my client had
2	already decided to withdraw from the case. So
3	basically we didn't contest the removal because we
4	were going to withdraw anyway.
5	Q. So your client was not prejudiced?
6	A. No, not at all.
7	Q. Have you been reprimanded in any other
8	cases you've been involved in in your 30-year career,
9	Mr. Rubin?
10	A. No, definitely not.
11	MR. SAUER: No further questions, your
12	Honor.
13	EXAMINER PRICE: Thank you.
14	Ms. Bojko, recross?
15	MS. BOJKO: No, thank you.
16	EXAMINER PRICE: Mr. Mendoza?
17	MR. MENDOZA: No questions.
18	EXAMINER PRICE: Mr. Randazzo?
19	MR. RANDAZZO: None.
20	EXAMINER PRICE: Mr. Kutik?
21	RECROSS-EXAMINATION
22	By Mr. Kutik:
23	Q. You had an opportunity to ask OCC to ask
24	for company discovery, correct?
25	A. Yes, sir.

And OCC didn't put any limitations on 1 Ο. 2 what you could ask with respect to discovery; is that 3 correct? 4 Α. Correct. 5 Ο. Now, you didn't claim before the Oregon Supreme Court that you had submitted a, quote, 6 7 technical, end quote, violation, did you? 8 I don't recall exactly what we filed. Α. Ι had conversations with an attorney with the 9 10 disciplinary authority in Oregon. The result of those conversations was a stipulation that we both 11 12 signed and that went to the court for approval. 13 That's why I didn't remember the court 14 aspect of it. I was working with a disciplinary 15 attorney there. I explained both orally and in 16 writing the nature of the violation. She understood 17 that and we stipulated to the reprimand, which was, 18 you know, the lowest sanction that the court had available. 19 20 So that understanding was all there, but 21 actually made it into the order, I don't recall. Ι 22 mean, we can read it if you like. 23 Q. Okay. There was injury that the Court 24 found as a result of your misconduct, correct? 25 Α. Again, I don't recall exactly what the

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1 Court said. There was no injury to my client. My 2 client had decided prior to any of this happening 3 that they did not have an ongoing interest in the 4 case and would be withdrawing from the case, so they 5 were not harmed at all. Well, isn't it true that the Court found 6 Ο. 7 that Verizon was injured? 8 Well, the Court made that finding based Α.

9 on Verizon's pleadings in the case. We did not disclose any information that was confidential to Verizon, and they didn't claim that in the other proceeding where we used the information.

You know, they didn't file a protective order or any kind of sanction in the other state where that information was used. They came back to Oregon to try to get a sanction against me, and they were successful, but they didn't try to go protect that information in the other state where it was actually moved.

20 MR. KUTIK: Move to strike, your Honor. 21 EXAMINER PRICE: I'm going to deny the 22 motion to strike.

Q. Isn't it true, sir, that the Court found
that Verizon was prejudiced by your misconduct?
A. As I said, yes, that's in there, based on

4853 1 Verizon's pleadings. 2 Ο. Thank you. 3 But I'm explaining Verizon's actions Α. which are different. 4 5 EXAMINER PRICE: Okay. I allowed your explanation the first time. But on my own motion, 6 7 we're going to strike everything after "yes." 8 MR. KUTIK: No further questions. 9 EXAMINER PRICE: Mr. Parram? 10 MR. PARRAM: No questions, your Honor. 11 EXAMINER PRICE: Mr. Kurtz? 12 MR. KURTZ: No questions. 13 EXAMINER PRICE: Thank you, Mr. Rubin. 14 You are excused. 15 THE WITNESS: Thank you. 16 EXAMINER PRICE: Mr. Sauer. 17 MR. SAUER: Thank you, your Honor. I move for the admission of OCC Exhibits 23 and 24C. 18 19 EXAMINER PRICE: Any objection? 20 They will be admitted. 21 (EXHIBITS ADMITTED INTO EVIDENCE.) 22 MR. KUTIK: Your Honor, we move for the 23 admission of Companies Exhibit 71, 72 and 73. 24 EXAMINER PRICE: Any objections? MR. SAUER: Your Honor, I object to the 25

4854 admission of Exhibit No. 71. Mr. Rubin in his case 1 2 in Oregon was an attorney in which case he was a 3 consultant not hired by OCC to represent OCC. It's 4 not relevant to this case and should not be admitted. 5 EXAMINER PRICE: Mr. Kutik. 6 MR. KUTIK: Your Honor, as you aptly 7 noted earlier, it goes to his credibility. With 8 respect to his zealousness and his ability to bend 9 the rules and with respect to the duty of care that 10 he provides in his duties. 11 EXAMINER PRICE: We will overrule the 12 objection. Company Exhibit 71, 72, and 73 will be 13 admitted. 14 (EXHIBITS ADMITTED INTO EVIDENCE.) 15 EXAMINER PRICE: Thank you all. We will 16 begin tomorrow at 9:00 to take Mr. Kahal tomorrow at 17 9:00, and then we will proceed with Mr. Bowring, 18 Mr. Scarpignato, and Mr. Burcat, whatever it is, and 19 then hopefully Mr. Williams. 20 Thank you all. We are adjourned. 21 (The hearing adjourned concluded at 5:29 22 p.m.) 23 24 25

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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 5,	
5	2015, and carefully compared with my original	
6	stenographic notes.	
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10		_
11	Carol A. Kirk, RPR, RMR.	
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Case No(s). 14-1297-EL-SSO

Summary: Transcript In the Matter of the application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company hearing held on 10/05/15 - Volume XXIII electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Anderson, Rosemary Foster Mrs.