4271 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 9:00 a.m. on Friday, October 2, 2015. VOLUME XXII ARMSTRONG & OKEY, INC. 222 East Town Street, Second Floor Columbus, Ohio 43215-5201 (614) 224-9481 - (800) 223-9481 Fax - (614) 224-5724

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| 1  | Friday Morning Session,                               |
| 2  | October 2, 2015.                                      |
| 3  |   |
| 4  | EXAMINER CHILES: Let's go ahead and go                |
| 5  | on the record. The Public Utilities Commission of     |
| 6  | Ohio has called for hearing at this time and place    |
| 7  | Case No. 14-1297-EL-SSO being in the matter of the    |
| 8  | Application of Ohio Edison Company, the Cleveland     |
| 9  | Electric Illuminating Company and the Toledo Edison   |
| 10 | Company for Authority to Provide for a Standard       |
| 11 | Service Offer pursuant to Revised Code Section        |
| 12 | 4928.143 in the form of an Electric Security Plan.    |
| 13 | My name is Mandy Chiles. With me are                  |
| 14 | Gregory Price and Meghan Addison, and we are the      |
| 15 | Attorney Examiners assigned by the Commission to hear |
| 16 | this case. We will waive appearances from the         |
| 17 | attorneys present this morning.                       |
| 18 | Before we begin, are there any                        |
| 19 | preliminary matters to be discussed on the record?    |
| 20 | Mr. Hays.   |
| 21 | MR. HAYS: Yes, your Honor. NOAC and                   |
| 22 | individual communities will be withdrawing the        |
| 23 | testimony of Mr. Vallen.                              |
| 24 | EXAMINER CHILES: Thank you for noting                 |
| 25 | that in the record.                                   |
|    |   |

Γ

4283 1 MR. HAYS: Thank you. 2 EXAMINER CHILES: Mr. Kurtz, are you 3 ready to proceed? 4 MR. KURTZ: Thank you, your Honor. Is 5 the witness sworn? EXAMINER PRICE: Not yet. 6 7 (Witness sworn.) 8 EXAMINER CHILES: Thank you. You may be 9 seated and please turn on your microphone. 10 STEPHEN J. BARON 11 12 being first duly sworn, as prescribed by law, was examined and testified as follows: 13 DIRECT EXAMINATION 14 15 By Mr. Kurtz: 16 Good morning, Mr. Baron. Q. 17 Α. Good morning. 18 Do you have a document in front of you of Q. supplemental testimony of Steven J. Baron? 19 20 Α. Yes, I do. 21 Ο. Was this prepared by you or under your 22 direct supervision? 23 Α. Yes. 24 If I were to ask you the same questions 0. 25 that were contained herein, would your answers be the

4284 same? 1 2 Yes. Α. 3 Do you have any changes or corrections Q. 4 you would like to make? 5 Not that I am aware of. Α. MR. KURTZ: Your Honor, could we have 6 7 this document marked as OEG Exhibit 1? 8 EXAMINER CHILES: So marked. 9 (EXHIBIT MARKED FOR IDENTIFICATION.) 10 MR. KURTZ: I tender the witness for 11 cross. 12 EXAMINER CHILES: Let's begin with the 13 companies. 14 MR. KUTIK: No questions, your Honor. 15 EXAMINER CHILES: Ms. Willis. 16 MS. WILLIS: No questions, your Honor. 17 EXAMINER CHILES: Mr. Lavanga. MR. LAVANGA: No questions, your Honor. 18 19 EXAMINER CHILES: Mr. Soules. 20 MR. SOULES: Thank you, your Honor. 21 22 CROSS-EXAMINATION 23 By Mr. Soules: 24 Thank you, your Honor. Good morning, Ο. 25 Mr. Baron.

1 Α. Good morning. 2 Ο. My name is Michael Soules, and I 3 represent Sierra Club in this proceeding. How are 4 vou doing? 5 Α. I'm doing fine. Great. Before we talk about your 6 Ο. 7 supplemental testimony, I would like to quickly cover 8 just a couple definitional points if we can. If I 9 refer to the Ohio Edison Company, the Cleveland 10 Electric Illuminating Company, and The Toledo Edison 11 Company collectively as the companies, will you 12 understand what I mean? 13 Α. Yes. 14 And if I refer to FirstEnergy Solutions Q. 15 Corp. as FES, will you understand what I mean? 16 Α. Yes. 17 Q. And are you aware that FES owns a 4.85 18 percent interest in two Ohio Valley Electric 19 Corporation power plants? 20 Α. Yes. 21 Ο. And if I refer to those power plants as 22 the OVEC plants, will you understand what I mean? 23 Α. Yes. 24 And if I refer to FES's ownership share Ο. 25 in those plans as the FES -- as the OVEC entitlement,

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4286 will you understand what I mean? 1 2 Α. Yes. 3 Great. Mr. Baron, are you generally Q. 4 aware of the proposed agreement under which FES would 5 sell to the companies the capacity, energy and ancillary services from the Davis-Besse and the 6 7 Sammis plants in the OVEC entitlement? 8 Α. Generally. 9 Ο. Okay. If I refer to that proposed agreement as the proposed transaction, will you 10 understand what I mean? 11 12 Α. I'll understand that it's a transaction 13 to facilitate the -- this -- the transfer of energy, 14 capacity, and costs. 15 Q. Okay. Are you aware that the companies 16 and FES executed a term sheet related to the proposed 17 transaction? 18 I have -- I am aware of the term sheet. Α. I have not read the term sheet. 19 20 Q. Okay. Thank you. Are you aware that the 21 term of the proposed transaction would run from 22 June 1, 2016, through May 31, 2031? 23 Α. Yes. 24 Okay. Before we go any further, just Ο. 25 pause for a moment, do you have any documents other

4287 1 than your written testimony and attachments before 2 you on the stand today? 3 Α. No. 4 Okay. Thank you. And in this case --Q. 5 Α. Well, excuse me. I have various -- I 6 have excerpts of orders and some testimony of the 7 company and other parties. Is that -- I may have 8 misunderstood your question. I don't have any notes. 9 Ο. Okay. What -- what orders do you have 10 copies of? 11 I have some excerpts of the AEP ESP Α. 12 order. I may have an excerpt from Duke -- yes, a 13 Duke ESP order. They are all for the most part 14 public documents. 15 Okay. Okay. And then you said you had Q. 16 testimony -- company testimony up there? 17 I think I have some testimony of the Α. 18 company and staff. I'm looking. A couple of exhibits, not much. 19 20 Q. Okay, okay. Great. Well, thank you, 21 Mr. Baron. And in this proceeding, you are 22 testifying on behalf of the Ohio Energy Group, 23 correct? 24 Α. Yes. 25 Q. And OEG is a signatory to the stipulation

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 1
      the companies filed with the Commission on December
 2
      22, 2014?
 3
             Α.
                  Yes.
 4
                  And OEG supports the entire stipulation,
             Ο.
 5
      correct?
                  Yes. That's my understanding.
 6
             Α.
 7
             Ο.
                  Okay. Have you personally read the
 8
      stipulation?
 9
             Α.
                  I have.
10
                  Okay. And it's your understanding that
             Q.
      the stipulation recommends the adoption of the
11
12
      companies' proposed economic stability program,
13
      correct?
                  Yes, among -- and obviously specific
14
             Α.
      provisions or identification of various elements,
15
16
      but, yes, that's correct.
17
                  What do you mean by verification of
             Q.
      various elements?
18
                  Well, the RRS, the various rate
19
             Α.
20
      provisions that are included and so forth.
21
             Ο.
                  Okay. Great. Thank you. And so you are
22
      familiar generally with the retail rate stability
      rider; is that correct?
23
24
                  Generally, yes.
             Α.
25
             Q.
                  Okay. And if the Commission approves it,
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4289 under rider RRS, the companies would pass through to 1 2 customers the net of the costs and revenues 3 associated with the Sammis plant, Davis-Besse plant, 4 and the OVEC entitlement; is that correct? 5 Α. That's my understanding, yes. Okay. And a rider would continue for a 6 Ο. 7 15-year term, correct? 8 Α. Yes. 9 Ο. Okay. If we could turn to page 5 of your 10 written testimony. Please let me know once you're 11 there. 12 Α. Okay. I am on page 5. 13 Ο. Great. Looking down at line 21, there is 14 a sentence that begins, "While I have not analyzed 15 the substantive economic analyses with the Economic 16 Stability Program (other than the rate recovery 17 issues for large customer classes)" and the sentence 18 continues on after that. Do you see that portion of 19 your testimony? 20 Α. Yes, I do. 21 Ο. Okay. Are you aware that companies' 22 witness Jay Ruberto provided an estimate of the costs and revenues associated with rider RRS over the 23 24 15-year period of the Economic Stability Program? 25 Α. Yes.

4290 Okay. Did you review Mr. Ruberto's 1 Ο. 2 estimate prior to submitting your written testimony 3 in this case? 4 Α. I believe I did. I think I read his 5 testimony. Okay. Prior to submitting your written 6 Ο. 7 testimony in this case, did you take any steps to 8 verify the reasonableness of Mr. Ruberto's estimate? 9 Α. No. As I indicated in the testimony at 10 page 5, line 21, I haven't analyzed the economic and -- I haven't reviewed the economic analyses in 11 12 the case --13 Q. Okay. 14 -- that underlie the projections of costs Α. and revenues and so forth. 15 16 So you've -- you've not reviewed the cost Ο. 17 projections that were presented by Jason Lisowski in 18 this case; is that correct? I have in the last -- since the time I 19 Α. 20 submitted my testimony, I have seen them. I haven't 21 evaluated them in a formal evaluation the way, say, 22 other parties in this case have done in terms of 23 examining the model inputs, the various assumptions, 24 and so forth. I haven't done that type of analysis. 25 I've seen the summary results of really Mr. Ruberto's

4291 calculations --1 2 Ο. Okay. -- presentation. 3 Α. 4 Thank you. Sorry to interrupt before you Ο. 5 were finished. No, no, I'm finished. 6 Α. 7 Q. So is it correct that you did not review 8 Mr. Lisowski's modeling inputs? That's correct. 9 Α. 10 Q. Okay. Thank you. That wasn't the purpose of my testimony. 11 Α. 12 Q. All right. So just to be clear, you are 13 not offering any opinion in this case about the reasonableness of Mr. Lisowski's cost and revenue 14 15 projections, correct? That -- I think that's fair. 16 Α. 17 Okay. And are you aware that companies' Q. 18 witness Judah Rose provided a forecast to market 19 energy prices, capacity prices and CO-2 prices that 20 were used for Mr. Lisowski's projections? 21 Α. Yes, I am aware of that. 22 Okay. Did you review those price Q. forecasts prior to submitting your written testimony? 23 24 Α. I did not. 25 Q. And you are not offering any opinion in

4292 this case about the reasonableness of Mr. Rose's 1 2 price forecasts, correct? 3 No. I'm not offering opinion about the Α. 4 reasonableness or the unreasonableness. I am simply 5 not addressing that issue. Okay. Great. Thank you. Could you 6 Ο. 7 please turn to page 4 of your written testimony. 8 Α. All right. 9 So looking at lines 1 and 2, there's a Ο. reference to the company's proposal providing 10 additional rate stability to customers in 11 12 FirstEnergy's territory. Do you see that reference? 13 Α. Yes. 14 Okay. Have you attempted to estimate the Q. amount of rate instability that the companies' 15 16 customers may face between June 1, 2016 and May 31, 17 2031? 18 I haven't done a specific analysis of Α. 19 projections for that period. However, based on my 20 experience and working in -- in Ohio and at -- in 21 evaluating PJM capacity and energy prices, I am aware 22 of the volatility in both of those, both the capacity 23 prices through the RPM, the reliability pricing model 24 results and the LMPs that -- that occur in PJM. 25 And so I have an understanding of that

4293 volatility and that's really what I was referring to. 1 2 There's no -- I don't have any -- any reason to 3 believe and there's no evidence that I'm aware of 4 that would support somehow a change in that, that 5 pattern, over the next 15 years, so what I see -observe, say, in the last couple of years on LMPs in 6 7 Ohio and PJM in general indicates that there is 8 volatility. 9 MR. SOULES: Your Honor, I'm sorry, could 10 I have that last answer read back. 11 EXAMINER CHILES: You may. 12 (Record read.) 13 MR. SOULES: Thank you. 14 So just to be clear, Mr. Baron, you have Q. 15 not attempted to quantify the amount of rate 16 instability that the companies' customers may face, 17 correct? 18 I haven't performed a specific Α. 19 quantification. The analysis -- the basis for my 20 testimony that you cited was the statement in my 21 experience in the general volatility. I haven't 22 performed a statistical analysis of standard 23 deviation or some other measure of volatility, but 24 it's an observation based on my experience that I 25 believe to exist, that is, there is considerable

4294 1 variation in those prices. 2 MR. SOULES: I'm sorry, could I have that 3 last answer also read back. 4 EXAMINER CHILES: You may. 5 (Record read.) MR. SOULES: Thank you. 6 7 Mr. Baron, have you attempted to quantify Q. 8 the degree to which rider RRS might provide greater rate stability for the companies' customers? 9 10 I have not done a specific analysis. Α. However, I think it's self-evident that when a 11 12 portion of the -- of customers' overall generation 13 rate is comprised of cost-based capacity and energy 14 in addition to market, all else being equal, it is my 15 opinion that that is going to reduce what otherwise 16 would be the level of volatility or variability in 17 the rates. I haven't done a quantification of that. 18 I don't know that it -- that it could be done. Ι 19 suppose possibly it could be done, but I didn't think 20 it was necessary. 21 MR. SOULES: Your Honor, I would like to 22 move to strike everything in that answer after the 23 first sentence as being nonresponsive to my question. 24 MS. BOJKO: I join that motion starting 25 with "however". I think consistent with prior

4295 1 rulings, we have given him leeway on three questions 2 now that were yes or no answers about quantification, 3 and he's expanded on all three of those answers. 4 MR. KURTZ: I think the answer was 5 responsive to the relatively broad question about the 6 policy behind the blending of cost-based rates and 7 market-based rates, that that was the answer, but the 8 policy surrounding the RRS. 9 EXAMINER CHILES: Did you want to add 10 something else? MR. SOULES: Oh, I was just going to say, 11 12 your Honor, I think it could have been answered with 13 a yes or no. 14 EXAMINER CHILES: I am going to deny the motion to strike at this time, but I will direct the 15 16 witness to answer carefully the question and answer 17 the question and only the question. 18 THE WITNESS: Yes, your Honor. 19 Thank you, your Honor. MR. SOULES: 20 Ο. (By Mr. Soules) Mr. Baron, could you 21 please turn to page 7 of your written testimony. 22 Α. I'm there. 23 Looking at -- starting on line 3, there Ο. are two sentences that read, "There is a chance that 24 25 the cost of Sammis, OVEC and Davis-Besse will be

4296 higher than forecast. But there is also a chance 1 2 that those costs will be lower." Do you see those 3 statements in your testimony? 4 Α. Yes, I do. 5 Ο. Okay. Have you quantified the probability that the cost of Sammis, OVEC and 6 7 Davis-Besse will be higher than forecast? 8 Α. No. 9 Ο. Have you quantified the probability that 10 the cost of Sammis, OVEC and Davis-Besse will be 11 lower than forecast? 12 Α. No. 13 Ο. And looking down at line 5, there are two sentences which read, "There is a chance that market 14 prices will be lower than forecast. But there is 15 16 also a chance that market prices will be higher." Do 17 you see those sentences in your testimony? 18 Α. Yes, I do. 19 Okay. Have you quantified the Q. 20 probability that market prices will be lower than 21 forecast? 22 Α. No. Have you quantified the probability that 23 Ο. 24 market prices will be higher than forecast? 25 Α. No.

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| 1  | Q. Okay. Looking down near the bottom of             |
| 2  | page 7, starting on line 23 and then running over to |
| 3  | the eighth page, there's a couple of sentences that  |
| 4  | state, "Given that FirstEnergy's proposal would not  |
| 5  | harm customer shopping in Ohio, the proposal is not  |
| 6  | anti-competitive. Nor would the proposal result in   |
| 7  | customers paying an unlawful subsidy." Do you see    |
| 8  | those statements in your testimony?                  |
| 9  | A. Yes.  |
| 10 | Q. Mr. Baron, are you familiar with Ohio             |
| 11 | Revised Code Section 4928.02 subpart (H)?            |
| 12 | A. I can't I may or may not be familiar.             |
| 13 | The numerical designation doesn't strike a cord of   |
| 14 | in my memory.  |
| 15 | Q. If you had an opportunity to review that          |
| 16 | statute, might that refresh your recollection?       |
| 17 | A. It's possible.                                    |
| 18 | MR. SOULES: Your Honor, may I approach?              |
| 19 | EXAMINER CHILES: You may.                            |
| 20 | Q. (By Mr. Soules) Mr. Baron, if you could           |
| 21 | please feel free to familiarize yourself with the    |
| 22 | statute, but I would like to specifically draw your  |
| 23 | attention to subpart (H). And please let me know     |
| 24 | when you are ready to proceed.                       |
| 25 | A. All right. I have read subpart H.                 |
|    |  |

Okay. And are you familiar with this 1 Ο. 2 statutory provision? 3 I have definitely seen this -- this --Α. 4 this state policy section in the past. I don't 5 recall when I have seen it. On page -- or in the two sentences of 6 Ο. 7 testimony that we just referred to, so page 7, 8 starting on line 2 through page 8, line 1, are you 9 offering an opinion about whether rider RRS is 10 consistent with Section 4928.02 subpart (H)? I'm obviously not offering a legal 11 Α. 12 opinion. I'm offering an opinion that based on my 13 understanding, discussions with counsel but really 14 more significantly guided by the Commission's decision in the AEP ESP case, 13-2385, where the 15 16 Commission, as I read it, indicated that a -- the 17 Commission -- I can even quote from it. 18 It says The Commission does not believe 19 that a PPA rider proposal if properly conceived 20 has -- it has -- well, the whole section of that order discusses the fact that a PPA rider like AEP 21 22 proposed which is similar to what is being proposed in the RRS, as I understand it, the Commission found 23 24 that it is consistent with Ohio law. 25 Now, as I said, I am not offering a legal

4299 opinion. I don't think it would be of any value if I 1 2 did. I can tell you what my opinion is, and my 3 opinion is that the -- that the Commission in the AEP 4 case concluded that a similar provision proposed by 5 AEP would meet the statutory requirements, though in that particular case, the Commission did not approve 6 7 it, and there is another proceeding going on right 8 now for -- with AEP proposing a plan. 9 Ο. And you submitted testimony in that related proceeding you just referenced, correct? 10 Yes, I have. 11 Α. 12 Q. Okay. So are you relying upon the 13 Commission order that you just cited to for these 14 portions of your testimony? I am relying on the Commission order and 15 Α. 16 discussions with OEG counsel. 17 And I think you said this, but just to be Q. 18 clear, you are not an attorney, correct? 19 I'm sorry, I couldn't hear. Say Α. Yeah. 20 it again. 21 Ο. You are not an attorney yourself, 22 correct? That's correct. 23 Α. 24 Okay. And looking specifically at page Ο. 25 8, line 1, you are not offering a legal opinion about

4300 whether rider RRS would require customers to pay an 1 2 unlawful subsidy, correct? 3 I am not offering a legal opinion. Α. 4 Okay. Thank you. And while we are on Ο. 5 page 8, if we could skip down a little further to line 7 through 11, in this portion of your testimony, 6 7 you provided an opinion as to whether the companies' 8 proposal is consistent with Ohio's regulatory structure, correct? 9 10 Α. Yes. And it's your opinion that the proposal 11 Ο. 12 is consistent with the regulatory structure, correct? 13 Α. Yes, based again -- well, yes. 14 And you are relying upon information Q. provided by counsel for that opinion; is that 15 16 correct? 17 Yes, and my review of the AEP ESP order Α. 18 that I discussed previously. 19 Okay. Could you please look at page 6 of Q. 20 your testimony. 21 Α. I'm on page 6. 22 Okay. On line 5 there is a sentence Q. which reads, "In my opinion, it is reasonable for 23 24 Ohio to maintain some control over generation." Do 25 you see that sentence in your testimony?

| 1  | A. Yes.   |
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| 2  | Q. Is it your understanding that the                  |
| 3  | companies' proposal would give the Commission some    |
| 4  | control over the operation of Sammis and Davis-Besse? |
| 5  | A. I think by to some extent, obviously               |
| 6  | the Commission is not going to operate the plants but |
| 7  | through the regulatory process if the if a PPA        |
| 8  | rider RRS was approved, that in conjunction with the  |
| 9  | transaction, then there would effectively be Ohio     |
| 10 | Commission regulatory oversight of the entire process |
| 11 | similar to, not exactly, but and to some extent maybe |
| 12 | closer to traditional regulation. But it's not        |
| 13 | obviously it's not it's not per se traditional        |
| 14 | regulation.   |
| 15 | MR. SOULES: Your Honor, could I have                  |
| 16 | that last answer read back.                           |
| 17 | EXAMINER CHILES: You may.                             |
| 18 | EXAMINER PRICE: And the question too,                 |
| 19 | please.   |
| 20 | (Record read.)  |
| 21 | MR. SOULES: Thank you.                                |
| 22 | Q. So, Mr. Baron, when you suggested that             |
| 23 | the Commission would have oversight over the entire   |
| 24 | process, is it your understanding then that the       |
| 25 | Commission would actually have oversight over the     |

1 operation of those plants?

2 Α. I think I indicated that the Commission 3 would not operate the plants but through the 4 regulatory process, even in this -- by virtue of this 5 case, the Commission will have some control over --6 in terms of the ratemaking process, the company, as I 7 understand it, have the ability, as I understand it, 8 to examine costs that are flowed through and so forth. If -- and that exists under -- in traditional 9 10 rate regulated jurisdictions. But obviously the Commission is not going to operate the plants. 11

12 Q. But you think the Commission would have 13 oversight over some operational aspects of the 14 plants?

A. I don't think that -- I don't envision that the Commission is going to have oversight over, for example, the bidding strategy that is used to bid the energy, though I don't -- for baseload plants. I don't know that there is much of a strategy, but the Commission is not going to have per se oversight.

But on a -- an after the fact basis, I would imagine if the company -- if there was some challenge at some point, assuming RRS was approved, in some future year if there was a challenge by some party, that the Commission -- that the utilities were

not operating, say, bidding the plants into PJM over 1 2 selling energy and capacity in a cost effective 3 manner, the Commission certainly could -- I would 4 think would have an opportunity to review that in the 5 context of approving RRS rates. That would be a general Commission -- I 6 7 would think the Commission would have that authority. 8 I -- to be honest, I haven't studied that and 9 evaluated whether that would occur. It's just based 10 on my experience in how Public Utilities Commissions 11 would operate. 12 MR. SOULES: Your Honor, could I have 13 just my question read back? EXAMINER CHILES: 14 Sure. 15 (Record read.) 16 MR. SOULES: Thank you. Your Honor, I 17 would move to strike the answer as nonresponsive to 18 my question. My question pertained to the operation 19 of the plants, not to after the fact cost recovery 20 issues. 21 EXAMINER CHILES: Could I have the answer read back, please. I know it's long. Sorry. 22 23 (Record read.) 24 EXAMINER CHILES: The motion to strike is 25 denied. Mr. Soules, I think you need to maybe be

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4304 more specific about what you mean as far as 1 2 operational aspects. 3 MR. SOULES: Okay. EXAMINER PRICE: Or oversight. 4 5 MR. SOULES: Okay. Thank you, your Your Honors, I have nothing further. 6 Honors. 7 EXAMINER CHILES: Thank you. 8 Ms. Petrucci. 9 MS. PETRUCCI: Thank you very much. 10 11 CROSS-EXAMINATION 12 By Ms. Petrucci: 13 Ο. Let's stick with this topic of regulatory 14 oversight. Are you aware, Mr. Baron, that the companies have proposed that the Commission conduct a 15 16 mathematical review of rider RRS? 17 As part of -- are you suggesting -- the Α. 18 answer is I may have seen some reference to that. I 19 would assume that that would be part of Commission --20 the Commission's ability to review the RRS. 21 Ο. Are you aware that the extent to which 22 that review that the companies have proposed is simply mathematical review? 23 24 That -- that the company -- is your Α. 25 question that the company has proposed that the

4305 Commission can only review the arithmetic that goes 1 2 into the formula; is that your question? 3 Ο. Yes. 4 MR. KUTIK: Objection, your Honor. Ιt 5 mischaracterizes the companies' proposal. 6 EXAMINER PRICE: But he is seeking 7 clarification. 8 MR. KUTIK: But she said yes. 9 MS. PETRUCCI: I did. I am asking if he 10 is aware of whether or not the companies have proposed to allow -- to have the Commission conduct 11 12 an annual mathematical review of rider RRS. 13 Α. Yes. And I -- but my clarification was, 14 was the question that is the only thing that the 15 companies is saying or seeking Commission ruling, 16 that the Commission would not have any other 17 authority other than that. 18 Okay. Do you know if they've proposed Ο. 19 something other than that mathematical review? 20 Α. I don't know that. But I -- my 21 recollection, I was trying to find it, is that the 22 Commission has identified a set of criteria that would be considered -- I think it was in the AEP case 23 24 to -- that would give the Commission authority to 25 have -- to look at the process, the costs that go in

1 and so forth.

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| 2  | That's and certainly I think that's a                |
| 3  | reasonable activity for the Commission to conduct.   |
| 4  | So I don't know whether the company has proposed     |
| 5  | something else, but I don't know that the            |
| 6  | Commission that the company has said the             |
| 7  | Commission can't do anything other than arithmetic   |
| 8  | calculations.  |
| 9  | Q. Are you aware of whether or not the               |
| 10 | companies have proposed a review of the              |
| 11 | reasonableness of actual costs but excluding all of  |
| 12 | the cost components that they deem to be legacy cost |
| 13 | components?  |
| 14 | A. I just don't recall. I don't recall.              |
| 15 | Q. Will you agree with me there are multiple         |
| 16 | ways in which to hedge electric costs?               |
| 17 | A. As a theoretical matter, yes.                     |
| 18 | Q. And, for instance, large customers can            |
| 19 | purchase financial hedges, perhaps through NYMEX     |
| 20 | the NYMEX exchange or through puts and calls?        |
| 21 | A. I'm aware that there there are NYMEX              |
| 22 | products. I don't I'm not aware that that            |
| 23 | there are that extend 15 years.                      |
| 24 | Q. Would you agree there are such options            |
| 25 | for financial hedges that extend out several years?  |
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| 1  | A. As I am not familiar with specifics                |
| 2  | but as a general matter, I'm aware that through       |
| 3  | the that through futures contracts, there can be      |
| 4  | strategies confected to accomplish financial hedges   |
| 5  | for some relatively short period of time. And I       |
| 6  | think you indicated in your question a couple of      |
| 7  | years.  |
| 8  | Q. I used the word several. Would you agree           |
| 9  | with me they can be multi-year financial hedges?      |
| 10 | A. Well, I think several in my mind conveys           |
| 11 | more than one.  |
| 12 | Q. Okay. Thank you. And large customers               |
| 13 | can purchase generation from CRES providers at on     |
| 14 | indexed rates with an administrative fee, for         |
| 15 | instance, as also a means for financially hedging     |
| 16 | electric costs?                                       |
| 17 | A. Again, the answer is yes but that may be           |
| 18 | for a one-year period, perhaps longer, I don't know,  |
| 19 | but certainly there's a I think that the contrast     |
| 20 | to RRS the RRS proposal is a 15-year period.          |
| 21 | Q. If I understood your answer, you said you          |
| 22 | are not sure of the length that these other financial |
| 23 | hedges that we have been discussing are, but you are  |
| 24 | of the opinion that they are not 15 years in length;  |
| 25 | is that accurate?                                     |
|    |   |

4308 Yes. It's my general understanding that 1 Α. 2 to the extent that a customer enters a contract with 3 a CRES provider, it would be for a much shorter 4 period of time. 5 Ο. But you would agree with me that it could 6 be multi years nonetheless, correct? 7 Α. I don't know, but I'll accept that that's 8 a possibility. 9 Ο. And would you also agree that Ohio 10 customers should be allowed to hedge their power 11 purchases? 12 Α. I think that independent of any Yes. 13 regulatory process in Ohio, I would think a customer 14 is free to engage in independent financial 15 transactions. That's -- yes. 16 And do you also agree that customers Ο. 17 should have options to select the manner in which 18 they hedge their power purchases? 19 Well, yes. I think if I understand --Α. 20 make sure -- I want to make sure I understand your 21 question. If the question is do I think there should 22 be a statute or some Commission rule that would 23 prevent customers from independently engaging in 24 financial transactions, the answer is no, I don't 25 think there should be. And -- but that -- I think --

and so if that was your question, then I've answered. If your question was broader with respect to the issues in this case, RRS, my answer would be expanded.

Q. Okay. Well, I was speaking generally. I wasn't speaking about a particular statute or a particular rule. I was asking in general. Do you believe that customers should have options to select the manner in which they can hedge their power purchases?

A. Yes. And I think I indicated to you that customers should be allowed to engage in independent financial transactions, whether it's buying common equities on the stock exchange or financial futures if that's what the customer wants to do.

Q. And do you also agree that it's reasonable to give customers options to select the manner in which they hedge their power purchases?

A. Well, I'm not sure I understand thatquestion. Reasonable to give by who?

21 Q. Is it reasonable for customers to have 22 options, to be allowed to have options, I'm sorry, to 23 select the manner in which they hedge their power 24 purchases?

## 25

A. Well, I think I answered that question

4310 previously that to my knowledge, customers in Ohio 1 2 are free to engage in futures transactions and if 3 it's including buying a NYMEX product, they are 4 allowed to do that. I don't know that that has 5 anything to do with Commission regulation. Well, Mr. Baron, I am asking you if you 6 Ο. 7 consider it to be reasonable that customers have the 8 ability to select the manner in which they hedge 9 their power purchases? MR. KUTIK: Your Honor, I object. 10 He has 11 answered this guestion. 12 EXAMINER CHILES: Ms. Petrucci, do you 13 have a response? MS. PETRUCCI: Well, I think that 14 15 Mr. Baron is perhaps trying to answer. I'm not sure 16 that he has actually answered the question yet. 17 That's why I have tried it a couple of times, and I 18 think he's even expressed that he's having a little 19 difficulty trying to answer the question. 20 MR. KUTIK: Your Honor, his answer was 21 quite thorough. 22 EXAMINER CHILES: I am going to sustain 23 the objection. 24 (By Ms. Petrucci) Mr. Baron, do you Ο. 25 believe it's unreasonable to not give Ohio customers

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different options that would allow them to select the 1 2 manner in which they hedge their power purchases? 3 Consistent with my -- I think my prior Α. 4 answer, customers should be free -- and this is 5 irrespective of whether the Commission approves the 6 RRS or not, free to engage in -- in financial 7 transactions outside the context of rates. 8 If -- in trying to answer your question, I'm sensing that what you are asking is if something 9 10 really broader, and that's why I am sort of struggling. It sounds like you're saying the 11 12 Commission, isn't a problem if the Commission 13 approves the RRS because that's a financial hedge and 14 that would be then setting that as the financial 15 hedge. But that wasn't exactly your question, but it 16 seems like that's where you're going, and so 17 that's -- that's why I am having trouble. 18 Well, I appreciate your trying to figure Q. 19 out where I am going. Let me turn to this -- your 20 testimony on page 5, lines 21 to 22. I know you have 21 already answered some questions from the Sierra Club 22 with respect to the statement there that you have not 23 analyzed the substantive economic analyses associated 24 with the economic stability program. Did you accept 25 the companies' claim that the plants are at risk of

4312 closure for purposes of -- for your testimony in this 1 2 case? 3 Α. I did not make any evaluation of that. 4 Did you accept the companies' forecast of Ο. 5 the impact of ride -- of the Economic Stability 6 Program? 7 Α. The economic results that I was --8 Ο. That you said you did look at, I was 9 wondering if you accepted them. 10 Α. I didn't accept them or reject them. Ι observed them. And since I didn't perform any 11 12 independent analysis of the modeling, the input 13 assumptions, I didn't form an opinion one way or the 14 other, but I -- I don't have any reason to -- I mean, 15 I have seen some of the testimony from other parties 16 in the case challenging aspects of the assumptions 17 and the modeling and so forth. I'm generally aware 18 of that, and based on my experience, I know that 19 exists any time you have a proceeding like this. 20 But I haven't done any independent 21 analysis, so I haven't -- I've accepted them for the 22 purposes of the analysis -- for my testimony in the sense that I'm aware of it and that the -- it shows 23 24 the net present value benefit over the term but in 25 the early years, a negative impact.

4313 1 Ο. Okay. So then you also understand that 2 the company is forecasting that the rider RRS amount 3 or rate will vary each and every year if their 4 forecasts were to actually come to fruition? 5 Α. Yes, absolutely, I am aware of that. 6 Ο. And are you also aware that the -- that 7 the rider RRS will be reconciled which then would 8 also have an impact on what the actual rate under rider RRS will be? 9 Yes, that it's based on actual revenues 10 Α. 11 and costs. 12 Ο. And would you also then understand that 13 the impact of rider RRS will vary differently from 14 what's forecasted by the companies at this time? 15 Α. Yes. I would expect so. 16 And do you also agree as a result of such Ο. 17 reconciliations, the amount to be applied each and --18 each of those years is going to change the amount 19 that customers will pay under rider RRS? 20 MR. KUTIK: May I have the question read, 21 please. 22 EXAMINER CHILES: You may. 23 (Record read.) 24 MR. KUTIK: Your Honor, I object. That 25 mischaracterizes the analysis and also

1 mischaracterizes the nature of the rider in that it 2 characterizes the rider as something that customers 3 will pay, end quote.

MS. PETRUCCI: I'm fine with that clarification. I understand that perhaps there could be a credit or a charge under the rider but my -- and with that clarification, I'm fine.

8 I actually was going to respond Α. Yeah. 9 similarly that based on the companies' forecast after 10 year three, it shows a credit to customer bills, not a payment, but with that clarification, it will vary 11 12 from the actuals. I am 100 percent certain that the 13 actuals will vary one way or the other from the forecast. 14

Q. And as we sit here today, we don't know how much that variance is going to be one way or the other, correct?

A. That's correct. As I think I said that in my testimony, that the market prices could be higher or lower than projected. Costs could be higher or lower and since those too are combined to form the RRS payment or credit, it's going to vary.

Q. Okay. Let's shift gears for a moment.
With regard to the -- with regard to FirstEnergy's -EXAMINER PRICE: Ms. Petrucci, before you

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| 1  | go on, I just have a follow-up question.              |
| 2  | MS. PETRUCCI: Certainly.                              |
| 3  | EXAMINER PRICE: If the Commission                     |
| 4  | modified the companies' proposal and ordered that the |
| 5  | rider be updated biannually instead of annually,      |
| 6  | would that reduce the amount of variation in the      |
| 7  | amount of reconciliation?                             |
| 8  | THE WITNESS: I would think all else                   |
| 9  | being equal that that it would. That to the           |
| 10 | extent that the that a cost or a revenue changed      |
| 11 | during over a period of a couple of months, that      |
| 12 | biannual reconciliation, with all else being equal,   |
| 13 | would have the effect of reducing the the rate        |
| 14 | change every six months. I think arithmetically I     |
| 15 | believe that would occur.                             |
| 16 | EXAMINER PRICE: Thank you.                            |
| 17 | Thank you, Ms. Petrucci.                              |
| 18 | Q. (By Ms. Petrucci) The extent to which              |
| 19 | reconciliations result in changes in the rider RRS is |
| 20 | dependent on how close to actual the forecasted costs |
| 21 | and revenues are; isn't that accurate?                |
| 22 | A. I'm not sure I agree with that. Maybe              |
| 23 | I'm misunderstanding your question. I think that on   |
| 24 | day one the there is going to be yes, there           |
| 25 | would be a projection of presumably revenues and      |
|    |   |

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4316 costs for that period, and so the reconciliation --1 2 it wouldn't be this forecast that's in the companies' 3 exhibit, but I assume it would be a forecast at the 4 time of the filing. 5 Ο. If the companies' forecasts for costs and 6 revenues are close to what the actual amounts end up 7 being, whether it's reconciled on a six-month basis 8 or on an annual basis, that means that the adjustment, the amount of reconciliation that has to 9 10 be applied would be smaller; isn't that accurate? 11 Α. Yes. 12 Q. So the frequency with respect to how 13 often a reconciliation takes place only has an impact 14 if, in fact, the forecasts are close to what the 15 actual costs and revenues are; is that correct? 16 Α. Yes. And I think the presumption would 17 be that if it was done more frequently, the forecast 18 would be more accurate. 19 Thank you. Q. 20 Α. If that's not true, then it wouldn't make 21 any difference. 22 Thank you. Okay. With respect to Q. 23 FirstEnergy's ELR program, that program can -- can be 24 continued --I'm sorry, I am not hearing you. 25 Α.

4317 1 Okay. I'm sorry. It just magically --Q. 2 the microphone went out. The --3 MR. KUTIK: Mr. Baron, you need to put 4 your microphone on. 5 Ο. I am not alone apparently. 6 Α. Okay. 7 We both are supposed to stop talking. Q. 8 FirstEnergy's ELR program can be continued or 9 expanded or phased out with or without the companies' 10 proposed rider RRS; isn't that true? MR. KUTIK: May I have the question read, 11 12 please? 13 EXAMINER CHILES: You may. 14 (Record read.) 15 Α. Yes. I would imagine that would be --16 that could happen, yes. 17 And the proposed stipulation does not Q. 18 open up the availability of the ELR program to more customers; isn't that correct? 19 20 I think it does. And it's my Α. 21 understanding based on the subsequent stipulations, 22 that additional load has been made available. And as 23 I read the stipulation, to the extent that -- I think 24 the most recent, if customers have not fully met the 25 level of the cap, the megawatt cap, by I think it was

4318 May of 2015, then it would be available on a first 1 2 come first serve basis, so that's my understanding of 3 how it works. 4 Okay. Do you have a copy of either the Q. 5 December -- actually, do you have a copy of both the December stipulation and the May stipulation 6 7 documents? 8 Α. Yes, I believe I do. I've got one of them. Let me see if I can find it. 9 If you find the May stipulation document, 10 Ο. 11 maybe we can start with that. MR. KUTIK: May we go off the record, 12 13 your Honor. EXAMINER CHILES: You can. 14 (Discussion off the record.) 15 16 EXAMINER CHILES: Let's go back on the 17 record. 18 (By Ms. Petrucci) Okay. So I think we Q. found the right document. Can you turn to page 2. 19 20 And to be very clear for the record, that's the May 21 2015 Supplemental Stipulation and Recommendation. 22 Α. Yes. Okay. And on page 2, there is a 23 Ο. 24 paragraph that's marked with a little i and then 25 underneath it there is a paragraph that starts with

1 the No. 1. 2 Α. Yes, I see that. 3 Okay. And in looking at that, do you --Ο. 4 do you agree with me that the participation in the 5 rider is limited to customers taking service under the rider during ESP III? Do you see that there? 6 7 I see the language -- the reference in Α. 8 little i of that paragraph 1 to customers taking 9 service during ESP III. 10 Okay. So do you agree with me that Q. 11 the -- in looking at that language, the ELR program 12 that's being proposed for ESP IV is limited to the 13 customers that are taking -- by this language limited 14 to the customers taking the rider ELR during ESP III? 15 Α. Yes. I think that's what it says, yes. 16 Okay. So now, can we try to find the Ο. 17 December stipulation, December 2014 stipulation. 18 Α. Okay. I've got that. 19 Okay. And if you could turn to page 7. Q. 20 Yes, I have that. Α. 21 Ο. Okay. And there you will see a paragraph 22 with a little i and then a paragraph that starts with 23 a No. 1. 24 Α. Yes. 25 Q. It also discusses the participation and

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it being limited. Do you see that? 1 2 Α. Yes. I think when I read -- Yes. When I 3 read it the first time, I had interpreted the "and" 4 as really "or" and not as a -- In reading it now, I 5 think I agree that it's -- the first clause -- as I understand it, of course, I'm not a lawyer, but 6 7 that's how I interpret it. 8 Okay. And to be fair, if you can look in Ο. 9 that same paragraph that starts with the No. 1 at the 10 sub paragraph with the little ii, that talks about the additional kilowatt hours being available for 11 12 customers who historically have been eligible for 13 rider ELR. I think that's when I -- when I 14 Α. Yes. 15 read that and I think the same language is in the May 16 supplement, my -- I interpret it as customers who 17 could have qualified for ELR but maybe were not on 18 ELR, so that's -- that was the confusion as to 19 whether it requires that a customer actually did 20 participate during the ESP III. 21 Ο. Okay. So after having looked at this 22 language, do you agree with me the stipulation does 23 not open up the availability of rider ELR to more 24 customers? 25 Α. It may. The only exception to

4321 1 clarification in answering to that is as I understand 2 it, there may have been customers who were on ELR 3 during the ESP III but perhaps are not on ELR today, 4 so they're not currently -- perhaps currently not on 5 a ELR. And as I read this, those customers who are 6 not currently on ELR but may have been on it at some 7 point in ESP III may -- may qualify under this too. 8 I'm not 100 percent certain. I didn't negotiate this 9 obviously. 10 Ο. But if a new factory came to FirstEnergy's service territory, it would not be able 11 12 to sign up for the ELR program during -- for use 13 during the ESP IV period; isn't that correct? 14 Yes, and that's pretty standard in these Α. types of tariffs. I think AEP's IRP has the same 15 16 type of provision that the Commission as approved. 17 With respect to the stipulations Q. 18 provision for the automaker credit, the -- that 19 credit can be approved with or without rider RRS, 20 isn't that true? 21 Α. Yes, I would agree in some hypothetical 22 independent proceeding, yes. If a new automaker wanted to start a new 23 Ο. 24 facility in FirstEnergy's service territory, would it 25 be eligible for this automaker credit?

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| 1  | A. I know that the I have to look at the              |
| 2  | tariff.   |
| 3  | Q. So you're not sure as you sit here today?          |
| 4  | MR. KUTIK: Your Honor, could he finish                |
| 5  | his answer, please?                                   |
| 6  | EXAMINER CHILES: Were you finished?                   |
| 7  | THE WITNESS: Well, I was just going to                |
| 8  | say I know that one of the provisions of the tariff   |
| 9  | is that it's tied to the credit is applied to a       |
| 10 | customer's baseline in a prior year, and so obviously |
| 11 | a new customer wouldn't have a baseline, but if       |
| 12 | you I may have the tariff here, and let me just       |
| 13 | see and I could perhaps clarify my answer.            |
| 14 | Again, I think it's consistent with what              |
| 15 | I said, that it appears that it's it's based on       |
| 16 | customers that had 45 million kilowatt hours for the  |
| 17 | 12 months ended December 31, 2009. So I think that's  |
| 18 | the basis for the economic development provision, is  |
| 19 | to provide the credit to customers who were on the    |
| 20 | system in that period.                                |
| 21 | Q. And the automaker credit pays those                |
| 22 | customers those automakers on the system already      |
| 23 | to increase the use of their electricity; isn't that  |
| 24 | correct?  |
| 25 | A. Increase it relative to the very                   |

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depressed year of 2009 when the economy in the United 1 2 States and in Ohio was severely down in terms of 3 economic activity, but, yes, yes, that's on a 4 relative basis is designed to provide incentives to 5 large employers in the state to continue production, 6 increase production and presumably increase 7 employment. 8 And you indicated in your testimony that Ο. increased production is through the increase of the 9 10 use of electricity and I was looking at page 16, line 11 23. 12 Α. Yes, I said -- that's exactly what I just 13 said, that for auto manufacturers there -- absent 14 some advance, some change in technology, increased 15 electric usage corresponds to increased production 16 which would correspond to increased employment and 17 economic activity in the state -- in Ohio. 18 And you've also indicated in an earlier Ο. 19 response, that the credit was essentially an 20 incentive during the recent recession; isn't that 21 correct? 22 Well, to the extent that it's tied to a Α. 23 baseline level of 2009, that's -- that's my 24 interpretation. It's a mechanism that all else being 25 equal and incents automakers to keep or expand

1 employment in Northern Ohio.

2 Now, turning to the provision in the Q. 3 stipulation to alter the allocation or the collection 4 under rider RRS, the -- the stipulation proposes to 5 change collection from a kilowatt-hour basis to a billing demand basis; isn't that correct? 6 7 Α. Within the large customer rates, those 8 are intraclass issues, in other words, within a large 9 power rate that the RRS would be recovered on a 10 demand basis. So it's not -- it's not per se -- it's not a cost allocation issue across customer classes. 11 12 It's -- it's a change in rate design within the

13 class.

Q. So if two customers, let's -- fall within the same rate class, they could receive very different credit amounts if rider RRS were a credit because of how their usage falls in comparison with the average of their rate class; isn't that correct?

A. Well, I -- it goes without saying that within a rate class, customers with different load characteristics will receive or pay different RRS credits depending on their usage, their load characteristics and that's true whether it's a kilowatt-hour basis or a demand basis. That's simply a fact that by -- but by changing it to a demand

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basis within the rate class, it's a recognition of the fixed costs aspect of the carrying costs associated with the plants.

Q. If rider RRS were collected on a
kilowatt-hour basis, each customer within that class
would be receiving a credit or a charge based on that
same formula, that same amount that's set forth would
ultimately be set forth in the tariff, correct?

9 Yes. And that would be true if it was a Α. 10 demand basis, every customer in the class, in the GT class or the GP class, would be receiving exactly the 11 same credit on a demand basis. It would be a uniform 12 13 credit on a demand basis, so that that's -- that's --14 that hasn't -- that wouldn't change at all. And just 15 to clarify for residential customers or -- or 16 customers that are billed on a kilowatt-hour basis, 17 the charge would continue to be a kilowatt-hour 18 charge.

19 Q. So in the end, customers within the same 20 rate class are going to experience different levels 21 of charges or credits under rider RRS, isn't that 22 correct?

A. Yes. And that's always how rate design would work and it -- as I said, if it was on a kilowatt-hour basis, that would also be true, that

would be different and it should be different
 depending on the load characteristics of the
 customer.

Q. And by that, do you mean their load -their usage level? Or when you say load
characteristics, are you talking about their usage
level or are you talking about something else?

8 Well, I -- load characteristics really is Α. a way -- it's sort of a shorthand way of saying 9 10 demand and energy usage. They are both usage, but 11 load characteristics would be recognized not only the 12 volume of energy used but the pattern of usage, the load factor of the customer and so forth. And that's 13 14 generally how costs are recovered in large customer classes in that manner, both on a demand and an 15 16 energy basis. 17 MS. PETRUCCI: If I can have just one

18 moment.

19

MS. TEIROCCI. II I Can nave just of

Sure.

20 MS. PETRUCCI: I have no further 21 questions. Thank you very much, Mr. Baron. 22 THE WITNESS: Thank you. 23 EXAMINER CHILES: Thank you. Ms. Bojko? 24 MS. BOJKO: Thank you. 25 \_\_\_\_\_

EXAMINER CHILES:

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| 1  | CROSS-EXAMINATION                                     |
| 2  | By Ms. Bojko:   |
| 3  | Q. Good morning, Mr. Baron.                           |
| 4  | A. Good morning.                                      |
| 5  | Q. Good to see you again.                             |
| 6  | A. Likewise.  |
| 7  | Q. It's your understanding, sir, that Ohio            |
| 8  | is in a deregulated state; is that correct?           |
| 9  | A. Well, it's a retail access state. I                |
| 10 | it's not fully deregulated because we wouldn't be     |
| 11 | here otherwise.                                       |
| 12 | Q. Well, it's your understanding that                 |
| 13 | distribution utilities have either divested or are in |
| 14 | the process of divesting their generation functions   |
| 15 | and they will no longer own generation; is that       |
| 16 | correct?  |
| 17 | A. Yes.   |
| 18 | Q. And currently the companies, meaning the           |
| 19 | FirstEnergy companies, do not own any generation; is  |
| 20 | that correct?   |
| 21 | A. That's correct, yes. That's my                     |
| 22 | understanding.  |
| 23 | Q. And is it your understanding that                  |
| 24 | FirstEnergy Solutions, an unregulated affiliate, owns |
| 25 | the plants that are the subject of the purchase power |
|    |   |

4328 1 agreement that we have been discussing this morning? 2 Yes, and just -- and I know this is what Α. 3 you meant, but it's not regulated by the Ohio 4 Commission. I assume it's regulated by the FERC to 5 some extent. Right. And also just for clarification 6 Ο. 7 purposes, the OVEC units are also owned by 8 FirstEnergy Solutions, the percentage of their 9 entitlement is owned by FirstEnergy Solutions; is 10 that correct? 11 Α. Yes. 12 Okay. And although you discuss in your Ο. 13 testimony what you believe the Ohio -- Ohio, the State of Ohio, can or cannot do with regard to 14 15 generation pricing and the regulatory structure, 16 you've stated here today that you're not an attorney 17 and you are not making any kind of legal conclusions 18 with regard to that; is that correct? 19 Α. Yes. 20 And you stated this morning that did you Ο. 21 not review 4928.02(h) or any other statutory 22 provision prior to drafting your testimony; is that 23 correct? 24 I don't think I said that. I think the Α. 25 question was did I -- am I familiar with 4928.02 and

4329 the numerical designation didn't ring a bell. 1 When I 2 was handed the document, I think I indicated that I 3 had seen it before and probably in a number of cases. 4 Okay. You would agree with me, sir, that Q. 5 rate stability is an important issue for all 6 customers, especially large commercial/industrial 7 customers; is that correct? 8 Α. Yes. 9 Ο. And as a representative of large 10 industrial users, you would agree with me that an increase in electricity prices will likely affect 11 12 that customer and affect the cost of their product? 13 Α. Yes, I would agree with that. 14 And large customers are particularly Q. 15 sensitive to electric price increases and that's why 16 you believe that the ELR and the automaker credit are 17 so important for economic development purposes; is 18 that right? 19 Yes. Because I discuss in my testimony Α. 20 because these customers face competition even within 21 their own corporate structure in terms of which plant 22 has been allocated a certain amount of production 23 based on costs. That's how businesses work, in 24 addition to national and international competition 25 from other companies.

Q. And you would agree with me, sir, that those economic development considerations are particularly important for customers that are competing in the same area or region; is that correct?

A. Yes. I think for -- for large industrial
manufacturing customers, the competitive impacts
really go -- go beyond region depending on their
particular businesses. So if you are a steel maker
or an automaker, you're -- it's really national or
perhaps even an international market.

12 Q. Right. And it's important that all 13 customers have access to those economic development 14 tools in order to be competitive and stay competitive 15 with each other; is that correct?

A. Well, as a general matter, yes. Obviously there are industries, there are types of customers that are more sensitive in terms of their business operations and, therefore, the impact on economic activity in Ohio and employment than others.

21 So, for example, a smaller commercial 22 customer that is competing against like a restaurant 23 that's competing against another restaurant that is 24 paying the same electric bill, the -- you know, 25 electricity is obviously an important element but the

competitive aspect of it is not -- perhaps not really 1 2 an issue because they are both affected by the same 3 cost structures and that's who they are competing 4 against, a customer down the street, and that's not 5 true for large manufacturing customers. It is true for similarly situated large 6 Ο. 7 manufacturing customers that have a steel company A 8 versus steel company B, it would be important that 9 they have a level playing field and that they are 10 provided with the same options or tools in order to be competitive with each other, isn't it? 11 12 Α. I think as a general matter, that's true, 13 and it's really -- it's state policy and it's 14 Commission policy that makes that assessment in terms of how a particular rate that the Commission controls 15 16 is -- is established and what the economic impacts 17 and implications are. It's state policy. 18 And turning back to rider RRS, sir, it's Ο. 19 your understanding that rider RRS will include the 20 difference between revenues collected from the sale

of the energy capacity and the ancillaries by the companies into the markets as compared to the costs associated with the proposed purchase power

24 transaction; is that correct?

25

A. Yes.

4332 And that difference as you explained 1 Ο. 2 could either be a charge or a credit? 3 That -- yes, that's based on the Α. 4 companies' forecast, that's -- yes, as a matter of 5 structure, that's true, and as a matter of forecast, the companies' forecast shows three years of negative 6 7 and followed by 12 years of credits to customer 8 bills. 9 And when you say three years of negative, 0. you are saying it will be a cost to customers during 10 the ESP III term; is that correct -- ESP IV, excuse 11 12 me? 13 Α. Based on my interpretation of the 14 companies' forecast, yes. And you understand that the companies' 15 Q. 16 proposal as of right now is that the rider RRS will 17 be adjusted annually so that it would be in effect 18 from June 1 through May 31st of each year; is that 19 correct? 20 Α. Yes. That would be my understanding. 21 Ο. And so if there were to be some kind of 22 event that you discuss in your testimony, if that 23 event occurred in July under the companies' proposal, 24 the PPA rider would not be adjusted to reflect any 25 results of the event until the following June; is

4333 1 that accurate? 2 Α. That's what -- how I would understand it, 3 yes. And that's traditionally how these types of riders would work. 4 5 Ο. And page 6 of your testimony, going to lines 13 and 15, you recognize here that 6 7 FirstEnergy's proposal, the companies' proposal will 8 result in the companies' retail generation pricing 9 being partially market based and partially cost 10 based; is that correct? 11 Α. Yes. And on page 7, lines 17 and 18, you state 12 Q. 13 that the proposed rider is a financial limitation on 14 customer shopping. Do you see that? Α. 15 Yes. 16 And in making this statement, you are Ο. 17 relying solely on the Commission order that you were 18 referring to earlier today in AEP's ESP proceeding and at the advice of counsel; is that correct? 19 20 Yes. The Commission discussed that in Α. 21 its order. 22 Okay. Q. And that's what I based it on. 23 Α. 24 And you mentioned the AEP ESP, I think it Ο. 25 was AEP ESP III, AEP ESP III case you filed testimony

4334 in that case, did you not, sir? 1 2 Α. I did. 3 And although you talked generally about Q. 4 the rider RRS, you did not -- you were not the 5 witness in that proceeding regarding rider RRS, isn't that correct? 6 7 Α. That's correct. 8 And you also, sir, filed testimony in the Ο. last Duke SSO case, ESP case, and you specifically 9 did not address the proposed rider RRS in that case 10 either, did you? 11 12 Α. That's correct. 13 Ο. You discussed this morning that there are 14 certain market uncertainties and you agree at the top 15 of page 7 of your testimony that the 15-year PPA 16 does, of course, have risks. 17 Α. Yes. 18 And on page 7, line 24, you state that Ο. 19 rider RRS will not harm shopping and thus, it is not 20 anti-competitive. Do you see that? 21 Α. Yes. 22 And isn't it true that this proposal will Q. 23 favor one generator over another favoring an 24 affiliated generating company? 25 Α. In the very limited sense that it is the

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| transaction involves assets owned by FES, that's one  |
| owner of assets. And so in in that sense, yes.        |
| In a broader competitive sense I don't view this as   |
| a as affecting the market, the market structure       |
| per se but in the sense that this involves FES units, |
| it's one one entity.                                  |
| Q. And understanding you believe that Ohio            |
| is still a hybrid model, it's your understanding that |
| an unregulated affiliate generator owner could not    |
| come before the Commission and ask for cost recovery  |
| of its generating plants; is that correct?            |
| A. In terms of just as a stand-alone, if              |
| I understood your question, if if company X owned     |
| generation in Ohio and participated in the PJM        |
| market, that company wouldn't be regulated by the     |
| Ohio Commission. But I'm not sure I don't think       |
| there is anything that would preclude a utility, the  |
| companies in this case or some other set of           |
| companies, from entering a similar type of contract   |
| with some non-affiliate generation owner.             |
| Q. And, sir, are you aware of whether a               |
| competitive solicitation was conducted in this case   |
| to do just that?                                      |
| A. I'm not aware that it was. I don't know,           |
| but I don't recall seeing anything to that effect,    |
|   |

4336 1 no. 2 And isn't it true that the independent Q. 3 market monitor for PJM also opposes the concept of 4 subsidizing one generator over another stating that 5 it is, in fact, inconsistent with the competitive 6 market construct? 7 MR. KUTIK: May I have the question read, 8 please? 9 EXAMINER CHILES: You may. 10 (Record read.) MR. KUTIK: Your Honor, I object. You 11 12 know Dr. Bowring is going to be here -- she can ask 13 Dr. Bowring that question. 14 MS. BOJKO: Your Honor, he's stating his belief and I am asking him if he's aware that the 15 16 independent market monitor for the PJM market that 17 he's discussing disagrees with his statement that there's no effect on the market. 18 19 EXAMINER CHILES: Overruled. He can 20 answer if he holds an opinion. 21 Α. Well, first, I don't agree that it's a 22 subsidy. You didn't ask me did I -- is this a 23 subsidy. You premised that in your question, so I 24 disagree with that premise. I think Dr. Bowring, the 25 Market Monitor did say -- talk about subsidies and he

1 opposed that.

| 2  | First of all, I don't agree that this is              |
|----|---|
| 3  | a subsidy. It's paying costs cost of service          |
| 4  | pricing for generation. And that occurs in PJM in a   |
| 5  | number of cases. Dominion Power, Mon Power, another   |
| 6  | FirstEnergy affiliate, Old Dominion Electric Co-op    |
| 7  | all owned cost of service based regulated facilities  |
| 8  | and they participated in PJM. And that's really not   |
| 9  | any different than what's going on here, so           |
| 10 | there's to my knowledge, PJM doesn't disallow         |
| 11 | that. It exists by these fair amount of capacity      |
| 12 | actually.   |
| 13 | MS. BOJKO: Your Honor, I move to strike               |
| 14 | his entire answer as not responsive. I actually       |
| 15 | asked if he was aware that the independent market     |
| 16 | monitor for PJM opposes the concept of subsidizing    |
| 17 | one generator over another stating that it is         |
| 18 | inconsistent with the competitive market construct.   |
| 19 | EXAMINER CHILES: Mr. Kurtz.                           |
| 20 | MR. KURTZ: Your Honor, counsel opened                 |
| 21 | the door very wide for this question and answer by    |
| 22 | referring to Dr. Bowring's testimony, bringing in the |
| 23 | question of whether there is a subsidy. So I think    |
| 24 | the answer was very responsive.                       |
| 25 | MS. BOJKO: No. I asked if the                         |
|    |   |

4338 independent market monitor opposes the concept, if he 1 2 knows. 3 MR. KUTIK: Your Honor, this is the 4 reason that I objected. If she is just going to ask 5 him what his recollection is of Dr. Bowring's testimony, that's unfair. This witness at least 6 7 should be able to explain what -- why his views 8 either agree or disagree with Dr. Bowring which is exactly what he did. 9 10 MS. BOJKO: And that is what redirect is for. 11 12 EXAMINER CHILES: Thank you. The motion 13 to strike is denied. 14 (By Ms. Bojko) Do you -- are you also Q. aware that staff filed testimony in this case 15 16 recommending that rider RRS be denied as currently 17 proposed? 18 Α. The staff -- I am aware the staff Yes. indicated that there are a set of conditions which 19 20 the staff believe need to be satisfied in order for 21 it to be acceptable. 22 And you discussed this morning a little Ο. 23 bit about the Commission having some oversight or 24 control over the operation of the plants and, sir, 25 you would be -- excuse me. Strike that.

You would consider any proposal that would prohibit a thorough review of the plants' operating costs to be unacceptable for customers; isn't that true?

5 Α. I would think that -- I haven't balanced all of the equities of this or that or the other, but 6 7 as a general matter, I believe that the Commission 8 should have review and, in fact, you asked me about 9 the staff's testimony. One of the points raised was 10 rigorous Commission oversight of the PPA rider, and I would characterize that as being able to review costs 11 12 and revenues.

Q. And staff was making a point that the current application does not allow for that and that would be one of staff's recommendations or conditions for any approval of a purchase power agreement in the future; isn't that true?

18 The staff -- in answer -- I can Α. 19 absolutely agree that the staff believes that that 20 should be a condition. I'm not certain whether the 21 staff took a position that that was not in there or 22 not. I would have to reread the staff's testimony. 23 EXAMINER PRICE: You need to turn your 24 microphone up. 25 Q. I'm sorry, your mic turned off. Sir, you

4340 1 must be reading from staff testimony; is that a fair 2 assumption? 3 I'm sorry, say that again. Α. 4 Ο. You must be reading from staff's 5 testimony; is that a fair assumption? Α. I was reading from the testimony of 6 7 Mr. Choueiki. 8 Q. Choueiki. 9 Choueiki, sorry. Α. 10 Dr. Choueiki. Q. Dr. Choueiki. 11 Α. 12 Q. Right. And if you turn to 12, sorry. Ιf 13 you could turn to page 12 of Dr. Choueiki's testimony. 14 15 I see that, and I do see that --Α. Yes. 16 Ο. Line 12. 17 He states that the -- in his opinion the Α. 18 companies at FES did not commit to rigorous 19 oversight. I see that. 20 Thank you. Let's switch to talk a Q. Okay. 21 little bit about demand response. You believe that demand response is a useful tool to reduce strains on 22 23 the grid during peak times and lower market prices; isn't that accurate? 24 25 Α. Yes.

4341 And demand response can also be used to 1 Ο. 2 reduce the need for new generation capacity; is that 3 correct? 4 Α. Yes. In fact, it does reduce the need --5 reduce the capacity obligations of LSEs in PJM. And if you are on -- if you look at the 6 Ο. 7 last word on page 9 flowing over to page 10, lines 1 8 and 3 of your testimony, you explain that demand 9 response -- you tie it here to economic development 10 and say that demand response can be a useful tool for economic development; is that correct? 11 12 Α. Yes, that's true. 13 Ο. And you are supporting today, sir, both 14 stipulations that were filed in this proceeding; is that correct? 15 16 Α. Yes. 17 And the stipulations as you discussed Q. 18 earlier continue the existing ELR program for 19 existing customers meeting certain eligibility 20 requirements and then as expanded to include up to 21 136,250 kW of additional curtailable load; is that 22 correct? 23 Α. Yes, that's my understanding. 24 Okay. And also your understanding now I Ο. 25 think today is that it's only available to existing

4342 customers or those customers who have historically 1 2 been eligible for rider ELR; is that correct? 3 Α. Yes. 4 And that the expanded ELR may have added Ο. 5 customers who are historically eligible and who 6 signed the stipulation or were a member of an 7 association that signed the stipulation; is that 8 correct? 9 MR. KUTIK: May I have the question read, 10 please? 11 EXAMINER CHILES: You may. 12 (Record read.) 13 MR. KUTIK: I object to the question as to characterizing the ELR as expanded, end quote. 14 15 would also object this provision of the stipulation 16 is not limited to individual group members unlike 17 that transmission part of the stipulation. 18 EXAMINER CHILES: Ms. Bojko. 19 MS. BOJKO: Well, I appreciate counsel 20 testifying, but I am trying to ask the witness his 21 extent of his knowledge. He didn't know before today 22 that the requirements were of the existing customers 23 of those who have been historically eligible. In 24 response to --25 MR. KUTIK: That's not true.

4343 MS. BOJKO: He said it was an "or" 1 2 instead of an "and", and then also we will get to 3 Mr. Kurtz's point, though. In response to Mr. Kutik, 4 he can answer if he knows. I am trying to explore 5 his knowledge of what he believes he agreed to or didn't agree to. It doesn't misrepresent anything. 6 7 MR. KUTIK: Well, the question assumes 8 that the ELR is "expanded." 9 MS. BOJKO: I'm sorry, he used the word "expanded" earlier today, I believe, so I was using 10 his word, but I can rephrase if that's more 11 12 appropriate. 13 EXAMINER CHILES: Could you rephrase. 14 MS. BOJKO: Sure. 15 EXAMINER CHILES: Thank you. 16 (By Ms. Bojko) Sir, is it your Ο. 17 understanding that the increase of additional 18 curtailable load to rider ELR may have added 19 customers who are historically eligible and who 20 signed or was a member of an association that signed 21 the stipulation? 22 That also mischaracterizes MR. KUTIK: 23 the proposal, your Honor, so I object. 24 MR. KURTZ: I join. I explained why that characterization mischaracterizes the stipulation. 25

4344 1 MS. BOJKO: Your Honor, if the witness 2 believes he can testify to what he believes, he can 3 testify to a clarification if that's what he would 4 prefer. 5 EXAMINER CHILES: Objection is sustained. 6 Ο. Sir, you do believe the ELR added 7 additional curtailable load; is that true? 8 Α. The original stipulation added 75 9 megawatts and the subsequent stipulation increased 10 that up to 136,250 kW. Okay. And both of those amounts that you 11 Ο. 12 just discussed are in addition to the ELR rider that 13 existed prior to the stipulations being filed; is that correct? 14 15 Α. I think the -- it was -- it was the cap 16 If you will give me a moment, I will get my on load. 17 copy of the original stipulation and try to answer 18 that. It -- the specific language states that it's 19 customers taking service under rider ELR during ESP 20 III and up to 75,000 kW of additional curtailable 21 load on a first come first serve basis for customers 22 who historically have been eligible for ELR. 23 The supplemental stipulation has the same 24 language but it's the 75,000 is now changed to 25 136,250 kW. There's nothing, just to clarify from

4345 1 your prior question, there's nothing that talks about 2 group membership or anything of that nature. 3 Well, let's discuss that. So this Ο. 4 stipulation -- Well, first of all, sir, do you know 5 that the additional curtailable load available has already been fully subscribed? 6 7 I don't know. Α. 8 Ο. Okay. So the stipulation was filed on 9 May 28, 2015; is that correct? 10 MR. KUTIK: I'm sorry, may I have the question read, please? 11 12 EXAMINER CHILES: You may. 13 Q. I'll rephrase, sorry. The supplemental 14 stipulation was filed on May 28, 2015; is that correct? 15 16 The date of it is May 26, 2015. But when Α. 17 it was filed, I can't tell you. 18 And where do you -- what? Where do you Ο. see a date? 19 20 Α. I am looking at page 5 signed by the 21 authorized agent of the undersigned parties as of 22 this 26th day of May, 2015. Oh, thank you. But if you -- you don't 23 Q. 24 have a docketed copy that has a time stamp of 25 5-28-2015 1:07 a.m.?

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| 1  | A. No, I don't.                                      |
| 2  | Q. Okay. So if the stipulation was filed on          |
| 3  | May 28, 2015, which was a Thursday, parties were     |
| 4  | required to notify them of their intent to           |
| 5  | participate by written notification on or before     |
| 6  | May 31st of 2015; isn't that correct?                |
| 7  | A. There is a in paragraph 2 on page 2,              |
| 8  | there is a statement that says "Provided notice to   |
| 9  | participate on or before May 1, 2015."               |
| 10 | Q. Are you reading the supplemental                  |
| 11 | stipulation, sir?                                    |
| 12 | A. Yes. And then it goes on and says, Their          |
| 13 | curtailable load cap of new customers that have      |
| 14 | provided notices to participate after May 1, 2015,   |
| 15 | but on or before May 31, 2015 will be approved to    |
| 16 | participate in rider ELR on a pro rata basis so that |
| 17 | it meets the load cap.                               |
| 18 | Q. And the sentence I was reading with               |
| 19 | regard to written notice is the first sentence in    |
| 20 | section 2 which says that the aggregate curtailable  |
| 21 | load cap of new rider ELR customers that have        |
| 22 | provided companies written notice of intent to       |
| 23 | participate in this program on or before May 31,     |
| 24 | 2015, shall not exceed 136,250 kW; is that correct?  |
| 25 | A. That's what it says, yes.                         |
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4347 Okay. So if the stipulation was filed on 1 Ο. 2 Thursday, then customers had to notify -- had to 3 receive the stipulation, review it, and notify the 4 customers the following business day in order to be 5 able to participate in the ELR program; is that true? I don't know if it's true, but I 6 Α. 7 certainly follow your logic that if a customer was 8 first made aware of it on the 28th and notice had to be provided by the 31st, that's three days. 9 10 Or one business day, Thursday to Friday? Q. Well, I will take your word. I don't 11 Α. 12 have a calendar in front of me, but I'll accept that. 13 Ο. So practically speaking, the customer 14 would have had to have known about the stipulation 15 either through participating in settlement 16 negotiations or by being a member of an association 17 that participated inside the negotiations; is that 18 correct? 19 I don't know, but it is what it is. Α. 20 Those are facts. 21 Ο. Okay. So let's talk a little bit about 22 what the ELR program does. There are two components. 23 The stipulation provides for two \$5 per kW per month 24 credits; is that correct? 25 Α. Yes.

4348 1 Ο. So that's a total of \$10 per kW per 2 month; is that accurate? 3 Α. Yes. 4 And the first \$5 per kW per unit Ο. 5 curtailable load credit is the economic development rider, rider EDR(b); is that correct? 6 7 Α. Yes. 8 And you are aware that the economic Ο. development rider credit is only collected from two 9 10 classes of commercial customers, GS and GP customers; is that correct? 11 12 Α. That's my understanding. 13 Ο. And Ohio Energy Group, do they have any GS or GP customers? 14 I don't know for a fact. 15 Α. I would imagine 16 that some of the members have some loads on those 17 rates, but I don't know. I haven't looked at any of 18 the billing data. But GS & GP customers would not be 19 Q. 20 typically the type of customers that have high 21 Industrial Energy Users that take service from the 22 companies which those are listed on page 2 of your testimony, lines 2 through 8, isn't that true? 23 24 Generally that's true, but I simply don't Α. 25 know. And in answering your prior question, my

4349 experience is that most large industrial customers 1 2 will have more than one account with the company on 3 different rate schedules. They may have a primary load on one account and then other loads, but I don't 4 know. I indicated that I haven't read -- looked at 5 6 anybody's bills. 7 Q. And that primary account that you just 8 referenced, that primary account would not be a GS or 9 GP customer. They wouldn't be taking service from them, isn't that correct? Their main facility would 10 11 not be taking service pursuant to a GS and GP 12 customer rate schedule? 13 MR. KUTIK: May I have the question read? 14 EXAMINER CHILES: You may. 15 MR. KUTIK: I'll object. 16 (Record read.) 17 EXAMINER CHILES: Grounds? 18 MR. KUTIK: Compound. 19 EXAMINER CHILES: Ms. Bojko, would you 20 rephrase? 21 MS. BOJKO: Sure. 22 Q. The primary account of those large industrial customers would not be taking service 23 24 pursuant to a GS or GP tariff schedule; is that 25 correct?

4350 I'm telling you that I don't know because 1 Α. 2 I just haven't looked at the bills. As a general 3 matter, large industrial -- well, it's certainly true 4 that every large industrial customer doesn't take 5 service at a transmission voltage, but I haven't looked at the composition of OEG membership. I just 6 7 don't know. 8 Ο. And the second credit of the rider ELR also equals \$5 per kW per month by unit of 9 10 curtailable load; is that correct? 11 Α. Yes. 12 Ο. And that is an ELR credit and is 13 collected from customers in DS E-1. 14 Α. Yes. And is collected from all customers 15 Ο. 16 except for the ELR customers; is that correct? 17 Α. That's my understanding. 18 And on page 12 of your testimony, you Ο. 19 cite to ESP II of AEP, but you are aware as we've 20 stated this morning that the Commission recently 21 approved an interruptible program in the ESP III 22 case, is that correct, which is 13-2385? 23 Α. Yes, and the Commission in that order 24 approved to continue the IRP credit, the 25 interruptible credit, at \$8.21 a kilowatt and it

would apply to shopping and nonshopping customers on
 the AEP Ohio system.

Q. And in that AEP case, we talked a little bit earlier about you filing testimony that summarized rider PPA, but the heart of your testimony, the meat of your testimony in the AEP case was regarding this ELR program; is that correct?

8 A. The IRP program, the interruptible load9 program.

Q. Thank you for that. Interruptible program, clarification. And you proposed in the AEP case two options, you proposed two different types of interruptible programs; is that accurate?

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A. That's my recollection.

Q. And the first option was based on the approach to approve by the Commission for Duke and would be patterned after the PJM limited emergency demand response program; is that correct?

A. I -- yes, I recall that. I haven't
reviewed that testimony in a while, but I do recall
there were two options. The Commission accepted the
8.21 and authorized that.

23 Q. And you also, your first option, was that 24 it would be available to all customers, both standard 25 service offer and shopping customers, and it would be

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4352 set equal to 50 percent of net CONE which -- is that 1 2 correct? 3 That's my recollection, but, again, the Α. 4 Commission rejected that. 5 Ο. And your proposal of the 50 percent net CONE in your testimony was calculated to be about 6 7 \$5.36 kW a month, but I believe on the stand, you 8 calculated it to be about \$4.88 per kW a month; is that correct? 9 10 Α. I just don't remember, but that sounds 11 close. 12 EXAMINER CHILES: Let's go off the record 13 for a moment. (Discussion off the record.) 14 15 EXAMINER CHILES: Let's go back on the 16 record. 17 Ms. Bojko, sorry for the interruption. 18 MS. BOJKO: Thank you, your Honor. 19 (By Ms. Bojko) Mr. Baron, before the Q. 20 break we were discussing your AEP testimony and I 21 believe you stated that you didn't quite recall but 22 it sounded correct. I have your testimony. 23 MS. BOJKO: Your Honors, may I approach? 24 EXAMINER CHILES: You may. 25 MR. KUTIK: Mike, do you want to go to

4353 1 this? MS. BOJKO: I'm sorry. I handed it to 2 3 the wrong one. My apologies, Mr. Kurtz. 4 MR. KURTZ: Oh, that's okay. 5 MS. BOJKO: Your Honor, at this time, I would like to mark this as OMAEG Exhibit --6 7 EXAMINER CHILES: I believe we are at 16. 8 EXAMINER PRICE: We know we didn't mark 9 something 13. 10 MS. BOJKO: Oh, we can mark this 13, how 11 about that? So we don't have a gap. OMAEG Exhibit 12 13. 13 EXAMINER CHILES: So marked. (EXHIBIT MARKED FOR IDENTIFICATION.) 14 15 Ο. (By Ms. Bojko) Sir, do you have in front 16 of you what has been marked as OMAEG Exhibit 13? 17 Α. Yes. 18 And is this a copy of your testimony Ο. 19 filed on May 2014 in Case No. 13-2385-EL-SSO? 20 Α. Yes. 21 Ο. And it says just May on the front cover, 22 May 2014, but it appears that it was filed around May 2nd by the affidavit attached; is that your 23 24 recollection? 25 Α. That's fine, yes.

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| 1  | Q. If you turn to pages turn to page 16               |
| 2  | of this testimony.                                    |
| 3  | A. 16?  |
| 4  | Q. Yes.   |
| 5  | A. Yes.   |
| 6  | Q. Page 16 here is where you will find your           |
| 7  | discussion of your recommendation on line 10          |
| 8  | regarding the Duke interruptible rate being an        |
| 9  | interruptible credit set at set equal to              |
| 10 | 50 percent of net CONE about \$5.36 kW a month; is    |
| 11 | that correct?   |
| 12 | A. Yes.   |
| 13 | Q. And your second criteria of that first             |
| 14 | option was that the rate would be available to all    |
| 15 | customers both shopping and nonshopping; is that      |
| 16 | correct?  |
| 17 | A. Yes, that's my recollection, and as I              |
| 18 | indicated, the Commission ultimately approved the     |
| 19 | 8.21 per kW credit and made it available to shopping  |
| 20 | and nonshopping customers in this case, the AEP case. |
| 21 | Q. Okay. Thank you for that. And the next             |
| 22 | sentence on line 13, you are explaining that your     |
| 23 | first option for the Commission was reasonable        |
| 24 | because while the \$5.36 kW a month credit is         |
| 25 | significantly less than the current \$8.21 kW per     |

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4355 month credit in the AEP territory, it is greater than 1 2 the current PJM RPM rate; is that correct? 3 Α. Yes. 4 And then the second option you propose to Ο. 5 the Commission was an unlimited emergency 6 interruptible rate that was set at \$8.21 per kW per 7 month credit; is that correct? 8 Α. Yes. 9 And as you just explained, the Commission Ο. 10 chose a hybrid, they chose option 2 but also made it available to nonshopping customers and shopping 11 12 customers; is that correct? 13 Α. Yes. 14 And, sir, you also filed testimony in the Q. Duke SSO case which was Case 14-841-EL-SSO where the 15 16 Commission also approved an interruptible program; is 17 that correct? 18 Α. Yes. 19 And in the Duke case, you discussed the Q. 20 options that you provided in the AEP case and you 21 also discussed the Duke's power share demand response 22 program; is that correct? 23 Α. I recall discussing that, yes. 24 And, sir, the Duke's power share demand Ο. 25 response program provided an approximate \$3 or \$3.50

4356 kW a month per credit; is that correct? 1 2 Α. That's my general recollection. 3 MS. BOJKO: Your Honor, at this time, may 4 I have marked as OMAEG 16 the direct testimony of 5 Stephen J. Baron in Case No. 14-841-EL-SSO, et al. EXAMINER CHILES: So marked. 6 7 (EXHIBIT MARKED FOR IDENTIFICATION.) 8 MS. BOJKO: May I approach? 9 EXAMINER CHILES: You may. 10 MS. BOJKO: And, your Honor, I didn't make copies since it a publicly filed document for 11 12 the parties. 13 Ο. (By Ms. Bojko) Sir, do you have in front of you what's been marked as OMAEG 16? 14 15 Α. Yes. 16 And is this your testimony that was filed Ο. 17 in the Duke -- the most recent Duke ESP case? 18 Α. It appears to be, yes. 19 And if you turn to page 18 of that Q. 20 testimony. 21 Α. All right. I'm on 18. 22 On page 18 is -- does this refresh your Q. 23 recollection that you recommended continuing the Duke 24 program and providing an IRP credit of 50 percent of 25 net CONE which is approximately \$5.36 at the time you

4357 1 filed your testimony? 2 Α. Yes, that was my recommendation. 3 MS. BOJKO: Your Honor, I am not going to 4 mark this, but may I approach the witness? 5 EXAMINER CHILES: You may. (By Ms. Bojko) Mr. Baron, do you have in 6 Ο. 7 front of you what appears to be a transcript Volume 8 VIII from the Duke Case No. 14-841-EL-SSO case? 9 Α. Yes. 10 And if you turn to page 2364. Q. 11 Α. Yes. 12 Q. I'm sorry. 13 Α. Yes, I have 2364. 14 Do you see on line 22 that you state you Q. believe your calculation of one-half of net CONE is 15 16 roughly \$4.88 per kW a month? 17 Α. I see that. 18 And if you turn to the next page, 2365, Ο. 19 do you see a discussion with your counsel about the 20 Duke power share program and that that amount or that 21 credit equaled approximately \$3 or \$3.50? 22 Α. Yes. 23 Ο. And the Commission accepted your 24 recommendation in the Duke case and adopted an IRP 25 credit of 50 -- half of net CONE which was

4358 approximately either \$4.88 or \$5.36? 1 2 Α. Yes. 3 Sir, do you know how many customers are Ο. 4 on the ELR program proposed by FirstEnergy companies 5 in this case? I believe it's currently 27, but I don't 6 Α. 7 have that with me. That's my recollection. 8 And you don't know, I take it from your Ο. 9 testimony earlier today, how many customers subscribe 10 to the additional 136,000 kW in the stip- -- in the supplemental stipulation? 11 12 Α. I do not. 13 Ο. And, sir, do you know the amount 14 associated with the credits, with the \$10 credit that 15 are projected to be passed on to other customers in 16 this proceeding? 17 Α. The net amount of that? 18 Ο. Yes. I don't have that calculation. It would 19 Α. 20 basically be the portion that's recovered through the 21 EDR, plus the portion that's recovered through the DS 22 E-1 charge which is net of proceeds from PJM, 23 80 percent of those proceeds from PJM that the 24 company receives from using -- bidding the 25 interruptible load into the BRA or an interim

1 auction.

2 Okay. Just walk me -- walk through the Q. 3 calculation with me. So the way to calculate the 4 total maximum revenues that could be passed on to 5 customers -- strike that. In order to calculate the total amount of 6 7 costs of providing the credits that will be passed on 8 to other customers not receiving the credits, the 9 Commission would take the \$10 per kW per month and 10 they would multiply it by the interruptible load; is that the first step? 11 12 Α. Yes. 13 Ο. And then you would take that number and 14 you would multiply it by 12 months, is that correct, to get an annual figure? 15 16 Α. Yes. 17 Q. And then you would take that number and 18 you would multiply it by three years for the term of the ESP; is that correct? 19 20 Α. Assuming that -- let's just say for each kW of load, yes, you would do that and obviously it 21 22 depends on whether the same amount of load is on 23 every day or every month but, yes, conceptually 24 that's correct. 25 Q. And then the total is passed on to

4360 customers, either GP and GS customers, only through 1 2 the EDR rider or it would be passed on to all 3 customers except for rider ELR customers through 4 rider ELR; is that correct? 5 Α. Well --Ο. Or DSE? 6 7 Α. \$5 of the credit is through EDR and the 8 other \$5 is through DS E-1, but we didn't -- you 9 didn't talk about the netting of revenues that --10 which would be offset in the DS E-1 calculation. 11 Thank you for that clarification. Ο. 12 Assuming that that provision is adopted again; is 13 that correct? 14 Α. Yes. 15 Ο. And that's not in the stipulation; is 16 that correct? 17 It's my understanding -- I don't think Α. 18 the specific -- I think my understanding is the 19 stipulation is to continue the ELR program, and it's 20 my understanding that that provision in the ELR 21 program would continue because that's the ELR tariff. 22 I am not aware of any other changes that the 23 stipulation would make to that provision. 24 EXAMINER PRICE: Which provision are you 25 talking about?

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| 1  | MS. BOJKO: The 80 percent of the                      |
| 2  | revenues received from bidding into the demand        |
| 3  | response into the PJM, your Honor.                    |
| 4  | EXAMINER PRICE: Okay.                                 |
| 5  | Q. And if the netting provision was not               |
| 6  | located in the companies' tariff provisions, you      |
| 7  | believe that that practice would still continue? I    |
| 8  | believe it was ordered by the Commission and not in   |
| 9  | the companies' original proposal or their tariffs.    |
| 10 | A. It's my understanding that that is the             |
| 11 | Commission's requirement for ELR, and I am not aware  |
| 12 | of any proposed change that anyone is proposing to    |
| 13 | change that.  |
| 14 | Q. And you are not aware of whether that              |
| 15 | exact language is or is not included in rider ELR     |
| 16 | tariff or in the DS E-1 tariff; is that correct?      |
| 17 | A. I without studying it, I don't know,               |
| 18 | but I understand that the Commission has issued       |
| 19 | decisions requiring that practice.                    |
| 20 | Q. And you would hope or expect that value            |
| 21 | to be passed back to customers; is that accurate?     |
| 22 | A. That's my understanding that that's how            |
| 23 | it would continue to work.                            |
| 24 | Q. And, sir, are you aware that staff has             |
| 25 | filed testimony in this case opposing the \$10 per kW |
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4362 1 per month ELR credit? 2 Α. Yes. I've seen that. 3 Let's turn to page 18 and 19 now of your Ο. 4 testimony. 5 Α. My testimony in this case? Yes, thank you. On pages 18 and 19, you 6 Ο. 7 discuss economic development and the benefits of 8 reasonable arrangements at the bottom of page 18 9 flowing over to page 19. Do you see that? 10 Α. Yes. And on page 19, line 17, you explain that 11 Ο. 12 both residential and commercial customers benefit 13 from promoting manufacturing and using economic development tools; is that correct? 14 Could you give me the reference again to 15 Α. 16 the page and line? 17 Sure, it's page 19. It's lines 6 and 7. Q. 18 Α. Okay. Yes, I see that. 19 It states the primary beneficiaries are Q. 20 residential and commercial customers; is that 21 correct? 22 Yes, obviously in addition to the Α. customer receiving the reasonable arrangement. 23 24 Right, clearly in addition. And you were Ο. 25 explaining here that in essence if all customers

benefit from these tools, they should all pay for or 1 2 be responsible for those benefits; is that accurate? 3 I think that's a -- I think, first Α. Yes. 4 of all, that's a general policy of the Commission and 5 for -- that offering reasonable arrangements is deemed to be I presume in the public interest because 6 7 it promotes economic activity and other objectives of 8 the State of Ohio and the Commission. 9 Ο. And you believe in this section that 10 reasonable arrangements are an economic development tool that should be offered to customers in order to 11 12 promote economic development and job growth and/or 13 job retention; is that correct? 14 Α. Yes, yes. 15 Ο. And that those reasonable arrangements 16 are currently and should continue to be offered to 17 all customers, is that correct, that meet the 18 qualifications obviously? 19 Α. Yes. 20 MS. BOJKO: Mr. Baron, that is all I 21 have. Thank you so much for your time, sir. 22 THE WITNESS: Thank you. 23 EXAMINER CHILES: Thank you, Ms. Bojko. 24 Mr. Hays. 25 MR. HAYS: I am going to move around.

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1 EXAMINER CHILES: Okay. 2 3 CROSS-EXAMINATION 4 By Mr. Hays: 5 Q. Hello, Mr. Baron. Α. 6 Hello. 7 I am Tom Hays. I'm the counsel for the Q. 8 Northwest Ohio Aggregation Coalition and the City of 9 Toledo, Lucas County, and smaller members of the 10 coalition like Lake Township. I'm hopeful we won't 11 be a half an hour. A number of the questions did get 12 asked. Would you agree with me that underlying all 13 of these regulatory things, there's also an economic 14 deal going on or a business deal? 15 Α. Well, certainly between FirstEnergy 16 Solutions and the companies, this is a business 17 transaction going on. 18 Would you also agree that there is an Ο. 19 agreement between OEG and the companies in this 20 proceeding as well? 21 Α. The stipulation is an agreement 22 consistent with the normal practice in utility rate 23 proceedings. It's not -- doesn't occur every time, 24 but it's a normal practice to have stipulations. 25 Q. Okay. Could FirstEnergy Solutions have

approached the OEG and its member companies and made 1 2 a 15-year power purchase agreement offer to them? 3 I would guess that could be done. I am Α. 4 not sure of what regulatory or statutory limitations 5 might be imposed on something like that, but as a general matter, I would expect that something like 6 7 that could be done. I am not 100 percent certain but 8 as a general matter. Okay. If --9 Ο. I should say that I don't think the --10 Α. from a feasibility standpoint, the transaction that's 11 12 at issue here which is Davis-Besse, Sammis, and OVEC, 13 all of that capacity could be -- there could be a 14 contract with OEG members for that. I just think from an economic feasibility standpoint, that 15 16 wouldn't occur, but I assumed you weren't asking 17 specifics in terms of the nature of the deal. 18 But I -- you probably have never Ο. No. 19 seen me in another hearing, so you can guess that I'm 20 not like some of the other counsel who have been to 21 many, and so, yes, I wasn't asking kind of generally, 22 but then I guess I would follow-up on what you told 23 me by saying but they could do, say, for a portion of 24 the power output. 25 Α. Again, I -- without knowing any --

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1 without commenting or offering a view about any legal 2 restrictions that might exist in Ohio regulation or 3 even federal regulation, as a general economic 4 construct, I would think you could enter something 5 like that. Okay. So generally speaking, as they 6 Ο. approach the OEG -- and instead of saying OEG and the 7 8 companies, member companies, I will just say OEG if 9 that's all right by you. 10 Α. All right. So if they approached OEG and OEG -- I 11 Ο. 12 ask you to assume OEG reviewed the proposal and felt 13 that it was too rich, that is, they needed a price 14 concession, could they make a counteroffer in this scenario? 15 16 I would expect if all else being equal in Α. 17 a hypothetical where there are two parties, two 18 business entities engaging in a financial transaction 19 or economic arrangement, it would be subject to 20 negotiation. 21 Ο. Would you not agree with me that the 22 signing of the stipulation which was an agreement 23 actually was a culmination of negotiations on just 24 this kind of arrangement? 25 Α. I would only be able to speculate. Ι

wasn't involved in it, but I assume that 1 2 representatives of OEG, you know, evaluated the terms 3 of the stipulation and made a decision. I wasn't 4 involved in that. 5 Ο. Okay. Well, you know, though, originally when the case was filed by first -- FirstEnergy in 6 7 September 2014, it did not include the stipulation. 8 You are aware of that? 9 Α. Yes. 10 Q. And subsequently an arrangement was reached, and I would ask you from an economic 11 12 standpoint if the OEG companies did not as part of 13 that agreement get a cost concession, that is, they 14 got the value of the riders ELR and EDR and the other benefits. 15 16 I would -- I would agree that when -- and Α. 17 I am just speculating because, as I said, I was not 18 involved in the negotiation, that OEG and its 19 representatives evaluated the entirety of the 20 proposal and that would include all of the elements, 21 both -- which would include the rate design or 22 provisions, all of them. 23 Ο. Now --24 OEG members will be paying the RRS as Α. 25 other customers will, so it's the entirety of the --

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4368 I assume it would be the entirety of the package. 1 2 Yes. And they would be getting the Ο. 3 benefits that flow under the riders to them, correct? 4 Well, any -- any customer -- yes, to the Α. 5 extent that OEG members, and I don't believe all OEG members are participating, for example, in the ELR 6 7 program or the automotive credit program, but to the 8 extent that OEG members participate in those, those members would receive the provisions of those 9 10 tariffs. Other customers on the FirstEnergy companies who would qualify who are not members of 11 12 OEG would also receive those same benefits to the 13 extent they are benefits. 14 Okay. And you don't think they are Ο. 15 benefits? I want to be clear. To me they seem to be 16 clear benefits to get cash out of this. 17 MR. KUTIK: Excuse me, your Honor. Is 18 there -- is there a question to the witness? 19 MR. HAYS: Yes. 20 MR. KUTIK: It was a comment. 21 Α. Well, first of all, I wouldn't agree with the characterization. It sounds like what you are 22 23 saying is --24 MR. KURTZ: Mr. Baron. 25 EXAMINER CHILES: There is an objection

4369 pending. I don't believe that you asked a question. 1 2 Would you please rephrase. 3 MR. HAYS: Oh, sure. I'm sorry, your 4 Honor. 5 Ο. (By Mr. Hays) Do you see from the viewpoint of OEG that riders ELR and EDR are economic 6 7 benefits to them? 8 Yes, I would agree with that. What I was Α. 9 about to say in response to your prior statement was 10 I interpreted your comment as the stipulation includes some kind of cash payment and that's not the 11 12 case. It's -- the ELR tariff, the automotive credit, 13 the other provisions, those are existing Commission 14 approved rates and the stipulation calls for continuing those. 15 16 Okay. I apologize for calling it cash. Ο. 17 I guess I reduced a little bit too much. 18 In a deal that was outside of -- outside 19 of this regulatory proceeding, if it were just a 20 private deal, that cash concession would be paid 21 by -- excuse me. The value of ELR, of the riders ELR 22 and EDR would presumably be paid by FirstEnergy itself, wouldn't it? 23 24 MR. KUTIK: Your Honor, I object. Are we talking about a private transaction regarding 25

interruptible power? 1 2 EXAMINER CHILES: Mr. Hays. 3 MR. HAYS: I guess what I -- let me go 4 about this a different way. 5 Ο. Would you agree that since a value can be 6 calculated for riders ELR and EDR, that it would be 7 possible in a private transaction to offer an equal 8 amount of money as an inducement for signing the 9 contract? 10 MR. KUTIK: Well, again, your Honor, I object. What deal are we talking about? Are we 11 12 talking about a deal for interruptible power? Who is 13 on the deal? Is it FirstEnergy Solutions? What are 14 we talking about? 15 EXAMINER CHILES: Mr. Hays. 16 MR. HAYS: I will be glad to clarify 17 that. 18 (By Mr. Hays) Assuming there was a Q. 19 15-year power purchase agreement between FirstEnergy 20 Solutions and OEG, would it not be able -- would --21 could that deal, private deal, not include an 22 economic benefit to the OEG members that's equal in value to riders ELR and EDR? 23 24 I think the way to answer your question, Α. 25 I don't know if you could structure it like you're

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suggesting, but what I can agree to is this: If two independent parties enter a financial arrangement, a contract, then obviously they will -- the presumption is they would negotiate a price.

5 And that price for some service would reflect the parties' bargaining power and all other 6 7 aspects of whether the parties agree that it is a 8 reasonable economic transaction. And the price -the contract terms would effectively have an economic 9 10 value to each party, and it would be -- and it may not be the same to each party, but it would be 11 12 assessed. I mean, that's how all transactions work.

I don't -- I am having a little trouble translating that into an interruptible credit or continuing a current tariff provision. I mean, FirstEnergy Solutions certainly couldn't have offered that in an independent negotiation with an industrial customer.

19 Q. It couldn't offer a concession, an 20 economic concession to form a deal; is that what you 21 are saying?

A. It could offer a price for whatever the deal is that would reflect all of the net economic value. It would reflect any negative economic value to the other party that the other party perceives.

4372 What I said was FirstEnergy Solutions can't offer to 1 2 continue the ELR; the Public -- the Public Utility 3 Commission of Ohio has to approve that. 4 Again, back in -- back in September 2014, Q. 5 riders ELR and EDR were not a part of that original filing by the -- by the companies, were they? 6 7 Α. That's correct. 8 I was really intrigued by your -- by your Ο. testimony on page 7, line 10. And if I could just 9 read it for you because it's so short. First, this 10 is regarding rider RRS; am I correct? 11 12 Α. Yes. 13 Ο. "Managing these risks and uncertainty is 14 the reason for a stability mechanism such as this to protect customers." Is that correct? 15 16 Yes. Except it was the word mitigating Α. 17 these risks. 18 Okay, sorry. "Mitigating these risks and Ο. uncertainty is the reason for a stability mechanism 19 20 such as this to protect customers," did I read it 21 correctly now? 22 Α. Yes. Okay. OEG did not sign -- did not 23 Ο. 24 support in a stipulation in September 2014 rider RRS, 25 did it?

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| 1  | A. To my knowledge, there was no stipulation         |
| 2  | in September.  |
| 3  | Q. Could   |
| 4  | A. '14.  |
| 5  | Q. Could it have written in a letter of              |
| 6  | support for this at that time?                       |
| 7  | A. I suppose so.                                     |
| 8  | Q. To your knowledge, did they ever support          |
| 9  | this proposal prior to the stipulations in December  |
| 10 | and May?   |
| 11 | A. In a  |
| 12 | MR. KUTIK: Excuse me, your Honor, I                  |
| 13 | believe that mischaracterizes the record. There were |
| 14 | several stipulations, the first one being filed in   |
| 15 | December.  |
| 16 | EXAMINER CHILES: Mr. Hays.                           |
| 17 | Q. (By Mr. Hays) Prior to December excuse            |
| 18 | me. Prior to the stipulation being filed in December |
| 19 | 2014, to the best of your knowledge, did OEG ever    |
| 20 | take a position that it supported rider RRS?         |
| 21 | A. I don't know.                                     |
| 22 | Q. Would you agree with me that Ford Motor           |
| 23 | Company is one of the companies that you list as a   |
| 24 | member of OEG?                                       |
| 25 | A. Yes.  |
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| 1  | Q. Do you know if Ford in its recent second          |
| 2  | quarter earnings forecast projected that the company |
| 3  | would make in excess of \$9 billion this year?       |
| 4  | A. I don't know.                                     |
| 5  | Q. Would you agree with me that that's               |
| 6  | something that could be readily found out by         |
| 7  | consulting the Ford website?                         |
| 8  | A. Yes, or some other public document.               |
| 9  | Q. Do you know the average Social Security           |
| 10 | check that old age retirees receive in the United    |
| 11 | States?  |
| 12 | A. I actually recall reading that just               |
| 13 | recently. It may be roughly a thousand a month or    |
| 14 | maybe less than that.                                |
| 15 | Q. I think you are in the ballpark. Would            |
| 16 | you agree with me that the evaluation of risk for    |
| 17 | Ford might be very different than the evaluation of  |
| 18 | risk by somebody who is receiving the average Social |
| 19 | Security payment?                                    |
| 20 | A. I would agree that it's different. You            |
| 21 | know, in the case of Ford, it's Ford would           |
| 22 | evaluate this issue based on the plants and the      |
| 23 | electric electric energy that it purchases on the    |
| 24 | companies' system in Ohio.                           |
| 25 | And obviously our retiree is going to                |

4375 evaluate, make an economic -- if it were -- if that 1 2 customer were in a position to make an economic 3 decision, the customer would evaluate it based on the 4 impact on that customer's usage or typical 5 residential bill or something of that nature. 6 Would you agree with me that one of the Ο. 7 reasons that -- would you agree with me that 8 FirstEnergy Solutions has alleged that it has a cash 9 flow problem for the next three years? 10 I don't know. I didn't really focus on Α. 11 that part of the system. I know the company did 12 present testimony talking about the economic 13 uncertainty associated with the plant. I don't 14 recall the specifics. I didn't focus on that. 15 Ο. I think you did, though, testify that in 16 response to a question by Ms. Bojko that for the next 17 three years, that there would be losses in the cost 18 of production of electricity at the Sammis and 19 Davis-Besse plants? 20 MR. KUTIK: Objection. Mischaracterizes 21 his testimony. 22 EXAMINER CHILES: Mr. Hays. MR. HAYS: I will reask it. 23 24 Are you aware if the company has Ο. forecasts that for the next three years the 25

1 Davis-Besse and Sammis plants would be losing money 2 in their sale of electricity? 3 MR. KUTIK: Objection on two grounds. 4 EXAMINER CHILES: Mr. Kutik, would you please turn on your microphone. 5 MR. KUTIK: Yes, first, again, it 6 7 mischaracterizes the testimony. And, second, with 8 respect to the specific financial viability of any of 9 the plants and specific financial data with respect 10 to the plants, that's confidential information and should be handled in the confidential session. 11 12 EXAMINER CHILES: Sustained. 13 Ο. Are you aware for the next three years 14 the companies are forecasting that over \$400 million would be added to customers' bills as a result of 15 16 rider RRS? 17 Α. That is my understanding, that for the 18 first three years of the 15-year term of the RRS, 19 that there would be a charge under RRS, and it would 20 be approximately \$460 million nominal. 21 Ο. Okay. 22 And then the next 12 years, it would Α. 23 reverse, so that over the term, it was I think on an 24 MVP basis it was about 800 million. 25 Q. Let's just deal with the first three

4377 1 years. 2 Α. Yes. 3 Would you not agree that that will Q. 4 increase the cash flow to FirstEnergy --5 FirstEnergy -- excuse me. Would you not agree that that will increase the cash flow to the companies? 6 7 MR. KUTIK: Objection. 8 Over the next three years? Q. 9 MR. KUTIK: Objection. 10 EXAMINER CHILES: Grounds? 11 MR. KUTIK: Mischaracterizes the 12 testimony, mischaracterizes the proposal. 13 MR. HAYS: Your Honor, if I may be heard, 14 I was asking a question about whether or not he believes that would increase the cash flow. He's an 15 16 economic expert. He can certainly testify as to 17 whether or not he believes that would increase the 18 cash flow. 19 MR. KUTIK: As the testimony in this 20 cases has amply demonstrated, the proposal rider RRS 21 is cash neutral, in fact, potentially cash negative 22 to the companies. Everything is a flow through. 23 EXAMINER CHILES: The objection is 24 sustained. 25 Q. (By Mr. Hays) Do you agree that over the

4378 1 next three years, there will be a passthrough from the customers through First -- through the companies 2 3 to FirstEnergy Solutions approximating \$460 million? 4 Α. I don't -- It's not my understanding 5 that's how it would work. It's my understanding that the transaction between the companies and the -- FES 6 7 would be paying for the cost of the plants and that 8 the companies would receive -- bid the units into PJM 9 and receive the revenues. 10 So my understanding is that -- and is 11 that the companies under the arrangement would pay 12 FirstEnergy Solutions -- FES for -- under the cost of 13 service type pricing for the cost of the plants. So that would be reimbursement of the costs. 14 15 Ο. Would that be done through cash? Would 16 that not be a payment from one to the other? Well, it would be -- I guess it would be 17 Α. 18 a compensate -- it would be the operating company 19 affiliates paying the FES affiliate for the costs. 20 Whether actual cash changes hands from an accounting 21 standpoint, that's what would happen. 22 Okay. And it's your understanding that Q. 23 during the next -- the first three years of rider 24 RRS, that an additional \$460 million will go from the 25 companies to FirstEnergy Solutions when we net -- net

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1 the costs versus what they are able to sell the power 2 on the market for?

3 Again, that's not my understanding of how Α. 4 it would work. My understanding was that the 5 companies would bid the energy and capacity into PJM and receive the revenues which would then be netted 6 7 in the RRS against the costs. In addition, the 8 companies would pay First -- FES for the cost of That's how I -- in other words, what the 9 service. cost of Davis-Besse, Sammis and OVEC was. That's how 10 I understood it. 11

Q. Okay. Do you understand that for the first three years of rider RRS, that retirees in their own electric bills will be paying additional sums of money?

A. Based on the companies' projections, the RRS is a -- produces a charge for the first three years. And it displaces a certain amount of market -- would otherwise be market purchases from the company, but the RRS for the first three years is a charge to customers, all customers, including retirees.

Q. Is one of the reasons First -- excuse me,
is one of the reasons the companies are proposing
rider RRS is that an affiliate company has been

1 harmed by bad economic times? 2 Α. I don't know. 3 Do you know if regular people have been Ο. harmed in north -- in northwest Ohio or northeast 4 5 Ohio by the current economic circumstances? MR. KUTIK: Your Honor, I object. 6 Tt's 7 argumentative. 8 EXAMINER CHILES: Sustained. 9 MR. HAYS: Your Honor, I would ask you to 10 reconsider. He said specifically going back to the sentence mitigating these risks and uncertainties is 11 12 the reasons for stability mechanism such as this to 13 protect customers. And I believe I have a right to 14 figure out how he is protecting them, who they are, what amount of money they make, what economic 15 16 circumstances they are in. 17 EXAMINER CHILES: Mr. Kutik, do you have 18 a response? 19 MR. KUTIK: No, your Honor. Again, the 20 question is argumentative. 21 EXAMINER CHILES: The objection is still 22 sustained. (By Mr. Hays) Do you know the 23 Ο. 24 unemployment rate in Lucas County? 25 Α. I do not.

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| 1  | Q. Do you know the average income of the             |
| 2  | residents of the City of Toledo?                     |
| 3  | A. No.   |
| 4  | Q. Do you know the number of people in the           |
| 5  | city of Toledo who live on less than \$25,000 a year |
| 6  | in household income?                                 |
| 7  | A. No.   |
| 8  | MR. HAYS: No other questions, your                   |
| 9  | Honor. Thank you and also thank you, Mr. Baron.      |
| 10 | THE WITNESS: Thank you.                              |
| 11 | EXAMINER CHILES: Mr. McNamee?                        |
| 12 | MR. McNAMEE: I have no questions, your               |
| 13 | Honor.   |
| 14 | EXAMINER CHILES: Examiner Price.                     |
| 15 | EXAMINER PRICE: I have a couple of                   |
| 16 | areas. Would you say current energy prices now are   |
| 17 | by historic standards relatively low?                |
| 18 | THE WITNESS: I actually haven't done a               |
| 19 | comparison. I know that obviously natural one        |
| 20 | thing I certainly am aware of, that natural gas      |
| 21 | prices at some point in time and market, you know, a |
| 22 | couple of years ago were much, much higher than they |
| 23 | are now. So market prices were commensurate with     |
| 24 | that.  |
| 25 | And today, some of the prices is                     |

4382 certainly driven by natural gas prices in particular, 1 2 and the residual effects of the economic turndown 3 have contributed to perhaps a slower load growth that 4 has affected market, you know, prices in general, the 5 need for capacity additions and so forth. EXAMINER PRICE: And if the Commission 6 7 approves rider RRS and market prices -- energy prices 8 go up, customers will pay less than they otherwise would have paid; isn't that correct? 9 10 THE WITNESS: Yes, correct. EXAMINER PRICE: And if the Commission 11 12 approves rider RRS and energy prices stay low, 13 customers will not benefit as much as they -- they 14 will be economically worse off if we had not approved rider RRS; is that right? 15 16 THE WITNESS: All else being equal, there 17 is some level of future market prices that would not 18 support the economics of the transaction. Based on the companies' forecast, it shows over time is 19 20 substantially economic, but clearly whatever the 21 market turns out to be and whatever the input costs 22 of the units is will determine that. 23 EXAMINER PRICE: The customers would 24 benefit because market prices would have stayed at 25 the relatively low level; is that correct?

1 THE WITNESS: Under the arrangement, 2 under the RRS. EXAMINER PRICE: If we approve RRS, the 3 4 market price and energy prices stay low, customers 5 will be worse off than they otherwise would have been but they will benefit from the fact that energy 6 7 prices are relatively low? 8 THE WITNESS: Yes. The answer is yes, 9 and it's exactly sort of analogous to if you enter a 10 hedge, like a natural gas hedge and it doesn't pay 11 off --12 EXAMINER PRICE: If I can interrupt you, 13 hedges are way too advanced for me. I am just a 14 lawyer. Isn't it analogous to insurance, car insurance? 15 16 THE WITNESS: Yes. 17 EXAMINER PRICE: If you don't get in an 18 accident next year, you will be economically worse 19 off than if you hadn't bought car insurance; is that 20 correct? 21 THE WITNESS: Absolutely. 22 EXAMINER PRICE: But you'll be happy. 23 THE WITNESS: Yes. 24 EXAMINER PRICE: Because you didn't get 25 in an accident. Do you have life insurance?

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| 1  | THE WITNESS: You are betting against a                |
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| 2  | bad outcome, if you don't have that bad outcome, the  |
| 3  | premium that you paid for that bet will be worth it.  |
| 4  | EXAMINER PRICE: Thank you. I'm                        |
| 5  | struggling what to do with these forecasts which by   |
| 6  | the end of today, we will have at least four          |
| 7  | forecasts in front of us. You have a degree in        |
| 8  | political science and so do I. If we were talking     |
| 9  | about polls and you had six or seven polls, you could |
| 10 | aggregate the results of those polls and take an      |
| 11 | average and say this is probably the most likely poll |
| 12 | to be the accurate results; isn't that right?         |
| 13 | THE WITNESS: That is one of the ways                  |
| 14 | that I think there is one clear politics or           |
| 15 | something poll that does that, aggregates.            |
| 16 | EXAMINER PRICE: Now, you are an                       |
| 17 | economist, and I am not, so I am going to ask you a   |
| 18 | question. Is it analogous with these projections, is  |
| 19 | it too crude for the Commission to take an average of |
| 20 | these projections and say, all things considered,     |
| 21 | this is probably the most likely result?              |
| 22 | THE WITNESS: If all things were equal,                |
| 23 | that might be a reasonable answer. And, again, I      |
| 24 | haven't looked at the individual forecasts, but in    |
| 25 | the case of economic for market price forecasts,      |
|    |   |

for example, there -- I think you have to go beyond that and sort of look at the methodology, compare them and the assumptions because if the averaging was simply the answer, then anybody could say, well, I am going to affect the average, I'll just say it's going to be this, and if that -- and a much lower forecast or a much higher forecast.

8 And it wouldn't be reasonable if that 9 forecast was included in the average if it didn't 10 meet certain standards of reasonableness in terms of 11 assumption, methodology, whatever. So as a general 12 matter, I agree with the averaging concept, but I do 13 think you have to go further and evaluate whether 14 there are imperfections, sort of systematic 15 imperfections in the methodology or the assumption or 16 something of that nature to make sure that it's --17 it's qualified to be included in the average.

EXAMINER PRICE: But if you made that decision, if you said, okay, we have looked at the underlying assumptions, they are within a range of reason for each individual projection, it would not be too crude a mechanism simply to average them and come up with a result?

24THE WITNESS: That would certainly be a25way to do it, to look at it. Another way would be to

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4386 look at, sort of assign probabilities to the 1 2 forecasts, and those could be either relied on more 3 scientific methods or maybe just judgmental. I heard 4 the witness supporting his forecasts, and I'll grade 5 it X, and this other witness, I'll grade him Y, and we will use those as a probability. 6 EXAMINER PRICE: Okay. Thank you. 7 8 That's all I have. 9 EXAMINER CHILES: Thank you. Mr. Kurtz, redirect? 10 MR. KURTZ: Your Honor, I would like to 11 12 have just a few minutes with the witness. 13 EXAMINER CHILES: Yes. Absolutely. Let's take a 5-minute break. Is 5 minutes enough? 14 15 MR. KURTZ: Yes. 16 EXAMINER CHILES: Let's take 5 minutes. 17 Off the record. 18 (Recess taken.) 19 EXAMINER CHILES: Let's go ahead and go 20 back on the record. Mr. Kurtz. 21 MR. KURTZ: I do have some redirect, your 22 Honor. 23 24 25

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| 1  | REDIRECT EXAMINATION                                 |
| 2  | By Mr. Kurtz:  |
| 3  | Q. Mr. Baron, you were asked questions by            |
| 4  | counsel about hedging and options and whether or not |
| 5  | customers on their own could buy a hedge or do you   |
| 6  | recall those lines of questions?                     |
| 7  | A. Yes.  |
| 8  | EXAMINER CHILES: Mr. Kurtz, would you                |
| 9  | turn on your microphone, please. Thank you.          |
| 10 | Q. You recall those questions?                       |
| 11 | A. Yes.  |
| 12 | Q. Okay. Is the type of hedge that's being           |
| 13 | offered here the same as the type of hedging product |
| 14 | that would be available on the NYMEX market or any   |
| 15 | market?  |
| 16 | A. My understanding The answer is no. I              |
| 17 | mean, this this hedge has the properties of a        |
| 18 | of a of a physical hedge in the sense that it's      |
| 19 | but it's based on cost of service as defined by the  |
| 20 | Commission ultimately when based on whatever the     |
| 21 | Commission approves for the RRS and that includes    |
| 22 | the Commission approved return on equity.            |
| 23 | In contrast, buying a futures contract on            |
| 24 | NYMEX for on and off peak energy at a particular     |
| 25 | delivery hub is really first of all, it's            |
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4388 energy -- it's my understanding that that would be an 1 2 energy related product, and it's relatively 3 short-term versus 15 years of a cost of service base construct which is what's at issue here, but moreover 4 5 the NYMEX prices reflect the expectations of the sellers of the financial futures contract of what PJM 6 7 prices are going to be for energy out -- basically 8 LMP energy. So they are really -- they are different, really completely different constructs. 9 10 You were asked questions about Ο. eligibility for rate ELR and the restrictions that 11 12 have been applied by the Commission historically and 13 as included in the proposed stipulations. Do you recall that? 14 15 Α. Yes. 16 Is it unusual for any Commission or this Ο. 17 Commission to have restrictions on rates of that 18 type? 19 No. As I indicated, I think in response Α. 20 to a question, the -- the AEP IRP D tariff, which is 21 an interruptible rate provision, has restrictions, 22 similar grandfathering restrictions. And FirstEnergy itself has restrictions in a number of their tariffs, 23 24 but specifically, for example, the rider EDR, the 25 current rider EDR has a provision F called school

credit provision, and it specifically provides a 1 2 credit to Cleveland Public Schools. 3 These were schools served before -- under 4 a special program on December 2008 or a Cleveland 5 municipal school district building that was served on January 2009, or a new school district building in 6 7 the Cleveland municipal district. It doesn't apply 8 to all schools, but it has restrictions. It's a typical type of Commission policy that does enter in 9 10 based on the Commission's approval and judgment into 11 tariffs. 12 MS. BOJKO: Objection, your Honor. Ι 13 move to strike. It's beyond the scope of cross. 14 Nobody talked about the school provision, and he read from the school provision tariffs which is 15 16 inappropriate on redirect, and I move to strike both 17 discussions starting with the discussion in the EDR, 18 there's a school provision, I think he said something like that. 19 20 EXAMINER CHILES: Mr. Kurtz. 21 MR. KURTZ: Your Honor, he was giving an 22 example in the Commission approved tariffs that has 23 restrictions similar to the restrictions in ELR, so 24 it was a redirect response to a whole line of 25 questioning about the restrictions in ELR.

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| 1  | EXAMINER CHILES: The motion to strike is              |
| 2  | granted. I have to find exactly where to strike.      |
| 3  | We'll strike everything beginning with "but           |
| 4  | specifically, for example, the rider ELR"             |
| 5  | MS. BOJKO: Thank you, your Honor.                     |
| 6  | Q. Mr. Baron, you were asked a number of              |
| 7  | questions about the automaker credit?                 |
| 8  | A. Yes.   |
| 9  | Q. Do you know what domestic manufacturing            |
| 10 | automakers are included in that?                      |
| 11 | A. There's basically four, General Motors             |
| 12 | and Chrysler and there are three Ford plants, three   |
| 13 | GM plants and two Chrysler plants in the Northern     |
| 14 | Ohio area served by FirstEnergy that are eligible for |
| 15 | that.   |
| 16 | Q. In your experience, is that a high                 |
| 17 | concentration of auto manufacturing in one area?      |
| 18 | A. Yes. It's very high.                               |
| 19 | Q. What is the annual amount of the                   |
| 20 | automaker credit?                                     |
| 21 | A. I think I looked at the tariff. It's               |
| 22 | I think I looked at the discovery in this case, I     |
| 23 | recall it was about [REDACTED].                       |
| 24 | MS. BOJKO: I object. I believe that's                 |
| 25 | on a confidential discovery document that I have      |
|    |   |

4391 sitting in front of me. 1 MR. KURTZ: Okay. The number is out 2 3 there. I don't know what you want to do with it. 4 EXAMINER PRICE: Just delete. Go off the 5 record. (Discussion off the record.) 6 7 Do you know how much the automaker credit Q. 8 costs the average residential customer based upon the tariff amounts? 9 10 The current charge on the tariff is .006 Α. cents a kilowatt-hour. If you multiply that times 11 12 the typical residential usage of about I think 13 785-kilowatt hours a month, it comes out to about 4.7 14 cents a month per customer. 15 Q. Okay. You were asked questions about 16 energy intensity and the cost of energy is a part of 17 doing business and similarly situated customers; do 18 you recall all that? 19 Α. Yes. 20 Q. Is FirstEnergy Service territory highly 21 intensive with steel making? 22 There are -- there's a substantial Α. Yes. amount of customer load and customers who make steel 23 24 in the FirstEnergy area. It's huge. I don't -- I 25 haven't done a comparison, but I imagine it's among

4392 1 the highest in the country. 2 Ο. Is steel making a particularly energy intensive business? 3 4 Α. Yes. 5 Ο. Do you know the percentage of industrial load on the FirstEnergy system compared to other 6 7 utilities in Ohio? 8 Α. Yes. 9 Ο. What are those? 10 Α. Based on the records that I guess are really publicly available, I think AEP has about 20 11 12 percent of its sales devoted to large -- to 13 industrial customers, Duke about 25 percent, and 14 FirstEnergy 39 percent, so it's much larger. Do you know the number of steelmakers 15 Ο. 16 served by the FirstEnergy utilities? I've seen that before. I think 17 Α. Yes. 18 there are about I think eight. Finally, you were asked questions about 19 Q. 20 whether the RRS transaction would favor one set of 21 generation versus another. Do you recall those? 22 Α. Yes. Do you view a transaction such as this as 23 Ο. 24 providing a subsidy or favoring one generation versus 25 another?

4393 1 Α. No, because the transaction is based -is a cost of service transaction and the cost of 2 3 service includes traditional rate of return regulated 4 type costs, O&M expense, depreciation, and it 5 includes a return on equity which is a component of cost of service, and it essentially is the profit 6 that in this case FES would make, and that is -- it's 7 8 at issue in this case as to what the rate of return would be and to the -- but I don't characterize that 9 10 as a subsidy. It's a cost of service based rate. It's a construct, the same as Dominion 11 12 Power receives cost of service pricing on its 13 generators that participate in the PJM market, and 14 Monongahela Power receives cost of service pricing on 15 its generators in the same manner. 16 And the return on equity approved by the Ο. 17 Commission here would be essentially a profit cap as 18 well as a profit floor as well as a profit cap. 19 MR. KUTIK: Objection. 20 EXAMINER CHILES: Grounds? 21 MR. KUTIK: Mischaracterizes the 22 companies' proposal. The companies are not asking 23 for approval on anything with respect to the proposed 24 transaction including any return. 25 MR. KURTZ: Let me just rephrase.

4394 1 EXAMINER CHILES: Thank you. 2 The return on equity component included Q. 3 in the sales from FES to the operating companies will 4 serve as a profit floor as well as a profit cap for 5 FES on these -- on these assets? 6 MS. BOJKO: Objection. 7 Α. Yes. 8 MR. SOULES: Objection. Leading 9 question. 10 I think this goes way beyond MS. BOJKO: 11 the scope of cross we talked about. 12 MR. KURTZ: There were a number of 13 questions about whether this was a subsidy, whether 14 this was favoring generation over another, and I 15 think it's directly responsive. 16 EXAMINER CHILES: I am just going to ask 17 you to rephrase your question so it's not a leading 18 question. 19 (By Mr. Kurtz) Okay. The -- you Q. 20 indicated the return on equity that FES proposes to 21 include in the transaction is a cost of service 22 element that the -- that the owners -- is that right? 23 Α. Yes. 24 Okay. And to a -- well, would that Ο. 25 serve -- would the return on equity included in that

sale serve as a floor and a cap on FES's profits? 1 2 All else being equal under the Α. 3 transaction, FES will be selling the capacity and to 4 the companies at a cost of service including a stated 5 return on equity and that will be set pursuant to the -- to the -- to the contract. 6 7 And so it will act as -- it has the 8 effect of acting as a floor and a cap on the profit 9 that FES would make from the units in the sense that 10 if market prices were to rise substantially at some point during the 15-year period and FES would 11 12 otherwise be permitted, absent this transaction, to 13 sell that capacity and energy into the market and 14 reap much higher returns on equity, then that will 15 occur. 16 So in that sense, it reflects a cap on 17 the profit and likewise, it reflects a floor if 18 market prices are lower, and it -- the return on 19 equity implicit in what otherwise would be market 20 price -- per sales would be lower. 21 MR. KURTZ: Thank you, your Honor, no 22 further questions. 23 EXAMINER CHILES: Thank you. Recross 24 beginning with the companies. 25 MR. KUTIK: May I have a minute, your

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4396 Honor? 1 2 EXAMINER CHILES: Sure. 3 MR. KUTIK: No questions. 4 EXAMINER CHILES: Miss Willis? MS. WILLIS: No questions, your Honor. 5 EXAMINER CHILES: Mr. Lavanga? 6 7 MR. LAVANGA: No questions, your Honor. 8 EXAMINER CHILES: Mr. Soules? 9 MR. SOULES: Thank you, your Honor. 10 11 RECROSS-EXAMINATION 12 By Mr. Soules: 13 Ο. Just very briefly, Mr. Baron. You just 14 answered some questions regarding the return on 15 equity associated with the proposed transaction, 16 correct? 17 Α. Yes. 18 Do you know what the return on equity is Ο. 19 for purposes of this proposed transaction? 20 Α. The company has I think it was 21 11.15 percent, has used that. 22 And do you know what the weighted average Q. cost of capital that was assumed for Mr. Ruberto's 23 24 projections? 25 Α. I don't recall the number. I think I

4397 1 recall a 50/50 capital structure. 2 Do you recall what the debt percentage Ο. 3 was that was assumed? 4 Well, I thought it was a 50/50 capital Α. 5 structure, but I really haven't focused on that. 50/50 --6 Ο. 7 Α. 50 percent equity, 50 percent debt. 8 And for the 50 percent debt, do you know Q. 9 what the debt rate percentage assumed was? 10 Α. No. 11 MR. SOULES: Okay. Thank you. Nothing 12 further, your Honor. 13 EXAMINER CHILES: Thank you. 14 Ms. Petrucci. 15 MS. PETRUCCI: Yes, your Honor. 16 17 RECROSS-EXAMINATION 18 By Ms. Petrucci: 19 If the Economic Stability Program is Ο. 20 approved as proposed, the alleged hedge would be 21 applied to all of the FirstEnergy companies' 22 customers, not just the stipulating parties such as OEG; isn't that correct? 23 24 Yes. Α. 25 Q. And as a result, all customers do not

4398 have the option to select or not select that hedge, 1 2 that alleged hedge; isn't that accurate? 3 The -- to the extent that the hedge is Α. 4 the RRS, customers would be required to pay the RRS, 5 all customers. And as a result, they would be subject to 6 Ο. 7 the up and down estimates that we previously 8 discussed earlier as to what the actual rate would 9 end up being, correct? 10 Α. Well, yes. I mean, the RRS would adjust under the companies' filing annually as we talked, 11 12 and there would be subject to that change, yes. 13 Ο. Okay. Customers then would not have the 14 option to select the kind of hedge that they 15 particularly are interested in if this particular 16 proposal is implemented. 17 MR. KUTIK: I object. 18 EXAMINER CHILES: Grounds? 19 MR. KUTIK: Two grounds. I think we are 20 now beyond the scope of redirect, and second, it's 21 been asked and answered. 22 MS. PETRUCCI: Well, I disagree it's 23 beyond the scope of redirect. I believe the witness 24 specifically stated, find my notes here, that this --25 this proposal is different, and I am exploring

4399 further how it has an impact and doesn't have an 1 2 impact that -- over the course of the period that's 3 involved, the 15 years. 4 MS. BOJKO: Your Honor, I join in that. 5 Counsel did mention hedge. He opened the door when 6 he started talking about hedges again and the 7 benefits of a hedge. 8 MS. PETRUCCI: If I could just add, he 9 specifically said the type of hedge here is not the same as what could be obtained in the market outside. 10 11 MR. KUTIK: But this very point was 12 discussed before and this very question was asked 13 before. 14 EXAMINER CHILES: Thank you. The 15 objection is overruled. Do you need the question 16 reread? 17 Α. Well, I think I remember it, but I think 18 your question was something to the effect of 19 precluding customers from participating or engaging 20 in other hedges, and I would disagree with that. Ιt 21 doesn't preclude any customer from entering any other 22 type of hedge arrangement. It is -- becomes part of 23 the tariff. And so customers would be -- all 24 customers would pay the RRS, but it doesn't preclude 25 any customer from entering a hedge, another hedge

4400 which I thought was your question. 1 2 Is a customer going to have knowledge in Q. 3 advance of what the -- let me strike that. 4 MS. PETRUCCI: I have nothing further. EXAMINER CHILES: 5 Thank you. Ms. Bojko? Thank you, your Honors. 6 MS. BOJKO: 7 8 RECROSS-EXAMINATION 9 By Ms. Bojko: 10 Q. The type of hedge that you were just discussing, the PPA hedge, I am not talking about 11 12 other hedges you may or may not be able to get into 13 the market, just the PPA hedge that you referenced, 14 that PPA hedge, customers have no choice of provider of that PPA hedge; isn't that correct? 15 16 That would be correct if it is approved. Α. 17 And customers have no choice of the term Q. 18 of that PPA hedge; is that correct? That's correct. 19 Α. 20 And customers have no choice of the risk Ο. 21 level associated with that PPA hedge; is that 22 correct? 23 Α. I would agree if the Commission approves 24 it, it is a -- becomes part of the tariff and it's in 25 effect for 15 years, yes.

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And customers have no choice of the 1 Ο. 2 premium level associated with the type or the risk 3 level of that hedge; isn't that correct? 4 Well, I don't think I would agree with Α. 5 that because based on my understanding, that it's a cost of service based construct, it's based on cost 6 7 of service. And so in contrast to a market hedge, 8 there isn't a premium per se in it. The return on 9 equity is a profit, it's a return on equity, but 10 that, under a traditional ratemaking, that is part of cost of service. 11 12 Ο. But you would agree with me that a 13 customer that goes out to source a hedge in the 14 market gets to look at the risk that it has an 15 appetite for and it can weigh the price of that hedge 16 with their risk appetite; isn't that correct? 17 I would agree that if a customer goes to Α. 18 the market, those are all factors that the customer could consider. 19 20 Ο. And you would also agree with me that 21 this alleged hedge is in addition to any fixed price 22 contract that a customer may or may not have with 23 their supplier; isn't that correct? 24 Α. Yes. I would agree. And effectively, 25 the Commission is, as part of its responsibilities in

4402 this proceeding under Ohio regulation, is acting 1 2 as -- in terms of it approves it, the proposal or 3 even if it disapproves it, it is making that decision 4 as is typical for regulated -- regulators to do when 5 it engages in ratemaking. And that decision by the Commission could 6 Ο. have the consequence of increasing a commercial 7 8 customer's rates above the rate that they have 9 entered into a fixed price contract with their 10 supplier if the cost to operate the plants is greater 11 than the revenues received from the out plant --12 output of the plants; isn't that correct? 13 MR. KUTIK: May I have the question read, 14 please. 15 EXAMINER CHILES: You may. 16 (Record read.) 17 Α. Yes. If the RRS produces a charge 18 instead of a credit, that would be an additional cost 19 to customers' charges. And if it was a credit, it 20 would be a reduction. And that's -- that's the nature of a hedge, as -- as I was really talking, 21 22 explaining, answering the judge's guestion, that 23 that's -- that's what hedges do. 24 And the -- you had a discussion with your Ο. 25 counsel about the automaker credit, and just so we're

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1 clear, the automaker credit is merely one component 2 of the over -- of the two stipulations that you are 3 requesting that the Commission approve; is that 4 correct?

5 A. It is -- it is one element of the 6 stipulation, yes.

Q. And there are other elements that have the effect of passing on costs to other customers that are contained and embedded in the stipulation; isn't that correct?

A. Yes. All else being equal, the ELR provision relative to where it is today, it's the same provision, but if you were depositing that it would otherwise go away, then it has that effect.

15 MS. BOJKO: Your Honor, at this time, I 16 would request that we go into confidential session to 17 talk about numbers. Counsel put the issue in front 18 of us when he talked about the one component of the 19 price of what the stipulation will cost, and I think 20 in fairness, I think that putting forth one element 21 is very misleading to the Commission, and I think 22 that the Commission has the right to hear the cost of 23 the other elements that he chose not to explain or 24 ask the witness about.

25

So it's my understanding those numbers

4404 are confidential. And as I explained previously, I 1 2 think that it would be appropriate to go into a 3 confidential session to discuss those. 4 MR. KURTZ: Well, your Honor, I 5 completely disagree. The whole purpose of redirect is to ask specific questions about things he has been 6 7 cross-examined on, and I did as to the automaker 8 credit, so moving beyond that which it sounds like 9 counsel wants to do --10 EXAMINER PRICE: You don't have to give the answer. What questions do you want to ask in 11 12 confidential session? 13 MS. BOJKO: Well, your Honor, he also 14 equated this to the number of steel companies, the 15 number of industries and comparing FirstEnergy to 16 AEP. So my questions are the costs of the 17 stipulation and the cost of the ELR program with the 18 automaker credit. He recollected the automaker 19 credit discovery, so I think it's only fair to bring 20 in the ELR to get the total cost to the stipulation. 21 EXAMINER PRICE: The automaker credit is 22 gone. That's not in the record anymore. That number 23 is gone. We took it out. 24 MS. BOJKO: No. He gave a kilowatt-hour 25 number.

4405 1 MR. KURTZ: That's directly from the 2 tariff, the public tariff, .006 cents per 3 kilowatt-hour. 4 MS. BOJKO: He is trying to lead the 5 Commission to believe that that --EXAMINER PRICE: You want to ask -- I 6 7 just want to understand what you want to ask. You 8 want to ask the per kilowatt hour prices of ELR 9 that's passed along to customers? 10 MS. BOJKO: Yes, I was going to ask the 11 total, not the per kilowatt-hour. 12 MR. KUTIK: Your Honor, these things are 13 already in the record. The Commission has -- the Bench has taken administrative notice of the 14 15 companies' tariffs. 16 MS. BOJKO: No, this is not -- This is 17 the cost of the ELR provision for the stip which what 18 was exactly relating to the cost of the automaker 19 credit for the stip. It's not the existing credits. 20 MR. KUTIK: Well, is this something the 21 witness even knows? 22 EXAMINER PRICE: I have no idea if he 23 knows that, if that's the --24 MR. KUTIK: That question can be asked in 25 public session, your Honor.

4406 1 MS. BOJKO: He was clearly refreshed of 2 his recollection of discovery regarding the automaker 3 credit. MR. KUTIK: Well, why don't you ask him, 4 5 your Honor. EXAMINER CHILES: We are going to deny 6 7 the request to go into confidential session. 8 (By Ms. Bojko) Mr. Baron, do you know the Q. charge to customers that will be passed on by a \$10 9 10 kilowatt-hour per month credit for the projected 11 stipulation? 12 Α. I don't know exactly. I recall looking 13 at some discovery, but I can't cite the number. 14 Ο. Okay. 15 Α. I believe the companies' witnesses may 16 have talked about that and I sort of perused the 17 deposition, and some of that was asked perhaps or in 18 discovery in the deposition. 19 And you would agree with me that the Q. 20 total dollar figure for the existing ELR customers 21 would be increased by the additional 1,306 --22 136,250-kilowatt hours per month of additional 23 curtailable load in the stipulations; is that 24 correct? 25 Α. I would expect so.

4407 And the annual number that you get would 1 Ο. 2 then have to be multiplied by three years in order to 3 get the total annual kilowatt-hour -- or excuse me, 4 just to get the total annual cost of providing ELR 5 credits to specific ELR customers; is that correct? What -- Assuming that there is some 6 Α. number X and the same amount of load was 7 8 participating over three years, it would be three times X. 9 10 Ο. And then you would add that to the automaker credit cost that you explained previously; 11 12 is that correct? 13 Α. Well, I don't know what you mean -- if 14 you wanted to add up the impact of the automotive 15 credit and the ELR provision, you would add them 16 together, I agree with that. 17 Q. Thank you. And you are aware there are 18 other provisions in the stipulation that may have a 19 cost that are passed on to customers that would also 20 have to be added to get a total impact of both 21 stipulations; is that fair? 22 Α. I, again, by simple arithmetic assuming 23 each of those -- if they have a cost, and I don't 24 know what they are, but let's assume they have a 25 cost, obviously you would add them up and if -- and

if the billing volume stayed the same, you would 1 2 multiply it by three. 3 Thank you. And that is the total cost of Ο. the provisions -- well, strike that. 4 5 That would be one component of the costs associated with the stipulation that the Commission 6 7 would have to consider in its analysis of the 8 reasonableness of the stipulation; is that correct? 9 Α. I would agree with that, that the 10 stipulation includes a number of provisions and the Commission would -- would -- is in a position to 11 12 evaluate all of them. 13 MS. BOJKO: Thank you. I have no further 14 questions. 15 EXAMINER CHILES: Thank you. Mr. Hays. 16 MR. HAYS: No questions, your Honor. 17 Thank you. 18 EXAMINER CHILES: Thank you. Examiner Price? 19 20 EXAMINER PRICE: Done. 21 EXAMINER CHILES: All right. Thank you, 22 you are excused. THE WITNESS: Thank you, your Honor. 23 24 MR. KURTZ: Oh, your Honor, I move the 25 admission of OEG Exhibit 1.

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4409 1 EXAMINER CHILES: Are there any 2 objections to the admission of OEG Exhibit 1. 3 Hearing none, it will be admitted. 4 (EXHIBIT ADMITTED INTO EVIDENCE.) 5 MS. BOJKO: Your Honor, at this time, I would move the admission of OMAEG 13 and 16. 6 7 EXAMINER CHILES: Are there any 8 objections to the admission of OMAEG Exhibits 13 and 16? 9 10 MR. KUTIK: Well, again, we haven't seen 11 those, so I don't know if I have an objection. MS. BOJKO: I don't know -- I mean, I 12 13 could show counsel copies. I wasn't provided any 14 copies of his exhibits yesterday, so they are 15 publicly filed documents. They are his testimony 16 that's filed with the Commission. I would think that 17 the --18 EXAMINER CHILES: Do you want to see 19 copies? 20 MR. KUTIK: Yeah, your Honor. Yes, your 21 Honor. What I would suggest is that counsel provide 22 us with a copy while we have our lunch break and we can come back and finish this. 23 24 MS. BOJKO: Your Honor, can we go off the 25 record?

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| 1  | EXAMINER CHILES: Sure.                                |
| 2  | (Discussion off the record.)                          |
| 3  | EXAMINER CHILES: Let's go back on the                 |
| 4  | record. At this time we will reserve ruling on the    |
| 5  | admission of OMAEG Exhibits 13 and 16 until after the |
| 6  | lunch hour. We will take an abbreviated lunch break   |
| 7  | today. We will return at 1:30. Let's go off the       |
| 8  | record.   |
| 9  | (Discussion off the record.)                          |
| 10 | (Thereupon, at 12:52 p.m., a lunch recess             |
| 11 | was taken until 1:30 p.m.)                            |
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4411 1 Friday Afternoon Session, 2 October 2, 2015. 3 4 EXAMINER CHILES: Let's go ahead and go 5 back on the Lord. Before we broke for lunch there was a motion to admit OMAEG Exhibits 13 and 16. Are 6 7 there any objections to the admission of OMAEG 8 Exhibit 13 and 16. 9 MR. KUTIK: Your Honor, we do not object. EXAMINER CHILES: Hearing none OMAEG 10 Exhibits 13 and 16 will be admitted. 11 12 (EXHIBITS ADMITTED INTO EVIDENCE.) 13 EXAMINER PRICE: Is it Mr. Soules or 14 Mr. Stinson that is sponsoring this witness? Mr. 15 Stinson, please call your next witness. 16 MR. STINSON: Yes, your Honor. 17 Dr. Sioshansi. And if I could approach, your Honor. 18 EXAMINER PRICE: Let me swear him in 19 first. 20 (Witness sworn.) 21 EXAMINER PRICE: Please be seated and 22 state your name and business address for the record. 23 THE WITNESS: My name is Ramteen 24 Sioshansi. My address is 60 East Spring Street, 25 Columbus, Ohio 43215.

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| 1  | EXAMINER PRICE: Please proceed,                     |
| 2  | Mr. Stinson.  |
| 3  | (EXHIBITS MARKED FOR IDENTIFICATION.)               |
| 4  |   |
| 5  | RAMTEEN SIOSHANSI, Ph.D                             |
| 6  | being first duly sworn, as prescribed by law, was   |
| 7  | examined and testified as follows:                  |
| 8  | DIRECT EXAMINATION                                  |
| 9  | By Mr. Stinson:                                     |
| 10 | Q. Mr. Sioshansi, I have placed before you          |
| 11 | three documents. One is your Direct Testimony which |
| 12 | is marked as OCC/NOPEC Exhibit 1. The next document |
| 13 | is your Supplemental Testimony marked as OCC/NOPEC  |
| 14 | Exhibit 2. And the third document is captioned      |
| 15 | Errata Direct and Supplemental Testimonies Ramteen  |
| 16 | Sioshansi, Ph.D. Do you have those in front of you? |
| 17 | A. Yes, I do.                                       |
| 18 | Q. And beginning with Exhibit 1, was your           |
| 19 | direct testimony prepared by you or under your      |
| 20 | supervision?  |
| 21 | A. Yes, it was.                                     |
| 22 | Q. And Exhibit 2, your supplemental                 |
| 23 | testimony was prepared by you or under your         |
| 24 | supervision?  |
| 25 | A. Yes, it was.                                     |

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4413 1 Ο. Do you have any additions, correction, 2 deletions to make to your direct or supplemental 3 testimonies? 4 Α. Yes, I do. 5 Ο. And are those additions and deletions listed on OCC/NOPEC Exhibit 3? 6 7 Α. Yes, I do. Those are the changes. 8 Let's go to OCC/NOPEC Exhibit 1. If you Ο. 9 could read those changes for the record, please. 10 Yes. On line 16 of page 3 after the Α. semicolon, the word "and" should be inserted. 11 12 Next on line 17 of page 3, after the word 13 "proposal," the semicolon followed by the words "and 14 federal policy issues" should be deleted. Next on line 2 of page 4, after the word 15 16 "following" the word "five" should be deleted and the 17 word "four" inserted in its place. 18 Next, on page 5, lines 10 through 14 should be deleted. 19 20 Next on line 16 through 20 of page 7, 21 first the sentence that begins with the word 22 "moreover" should be deleted followed by the sentence beginning with the word "however" should also be 23 24 deleted. 25 Then line 17 of page 23 through line 9 of

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      page 27 should be deleted.
 2
                  EXAMINER PRICE: Slow down. Slow down.
 3
      That was a big one. On to your next one. You may
 4
      proceed.
 5
                  THE WITNESS: Thank you. Then line 14 on
      page 29 through line 18 on page 33 should be deleted.
 6
 7
                   And then finally on lines 5 and 6 of
 8
      page 34, the sentence beginning with the word
      "finally" should be deleted.
 9
                  Are there any other additions,
10
             Q.
      corrections or deletions to your direct testimony?
11
12
             Α.
                  No, there are not.
13
             Ο.
                  Turning to OCC/NOPEC Exhibit 2, do you
14
      have any corrections or deletions to that testimony?
15
             Α.
                  Yes, I do.
16
                  And could you explain those for the
             Ο.
17
      record, please.
18
                  First of all, on line 11 of page 10, the
             Α.
      word "small" should be deleted.
19
20
                  And then on line 9 of page 6, the comma
21
      after the word "unjust" should be deleted and the
22
      word "and" should be inserted between "unjust" and
      "unreasonable." And the comma followed by the words
23
24
      "and unlawful" after the word "unreasonable" should
25
      be deleted.
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4415 1 Ο. Are there any other additions, 2 corrections or deletions to your supplemental 3 testimony Exhibit 2? 4 Α. No. 5 Ο. With respect to OCC/NOPEC Exhibit No. 1, 6 if I were to ask you the same questions and -- let me start over. If I were to ask you the same questions 7 8 as amended, would your answers as amended be the 9 same? 10 Α. Yes, they would. And the same with OCC Exhibit No. 2, if I 11 Ο. 12 were to ask the questions as amended, would your answers as amended be the same? 13 14 Yes, they would. Α. 15 MR. STINSON: Thank you. At this time, 16 your Honor, Dr. Sioshansi is available for 17 cross-examination. 18 EXAMINER PRICE: Mr. Mendoza? 19 MR. MENDOZA: No questions. 20 EXAMINER PRICE: Mr. Hays? 21 MR. HAYS: No questions, your Honor. 22 EXAMINER PRICE: Companies? 23 MR. ALEXANDER: Just a moment, your 24 I believe counsel may have saved us a Honor. 25 substantial amount of time.

4416 1 EXAMINER PRICE: Okay. Let's go off the 2 record for 5 minutes and take a minute to catch up. 3 (Discussion off the record.) 4 EXAMINER PRICE: Let's go back on the record. 5 Mr. Alexander. Thank you, your Honor, 6 MR. ALEXANDER: 7 yes. 8 9 CROSS-EXAMINATION 10 By Mr. Alexander: 11 Dr. Sioshansi, I'm Trevor Alexander, we Ο. 12 have met before. You have just made some relatively 13 significant changes to your testimony. If I ask you 14 questions about areas which have been deleted, please 15 just remind me of that in your response, okay? 16 Α. Okay. 17 Q. Now, turning to your direct testimony 18 which has been marked as Exhibit 1 at page 1, line 19 10, let me know when you are there. 20 Α. Yes, I'm there. 21 Ο. You state you are -- you had 16 years 22 experience in the academic and consulting in the 23 electric power industry, correct? 24 I see where I have written that, yes. Α. 25 Q. So your first experience was in 1998; is

1 that correct? Working backwards, yes, 1998. 2 Α. 3 And in 1998, you were a sophomore at UC Ο. 4 Berkeley, correct? 5 Α. That would be correct. So when you say you have 16 years of 6 Ο. 7 experience, you are including the time you spend in 8 undergrad and graduate school, correct? 9 The time period spans when I was an Α. 10 undergraduate. However, I was working as an intern at Pacific Gas and Electric Company which is an 11 12 electric utility in northern California. 13 Ο. My question was when you say you have 16 14 years of experience, you are including the time you spent in undergrad and graduate school, correct? 15 16 Yes. By the tautology that I was an Α. undergraduate 16 years ago, I am counting that period 17 18 of time. 19 Okay. Please turn to page 1, line 20. Q. 20 You discuss your consulting work. Tell me when you 21 are there. 22 Α. I'm there. The consulting work you are referring to 23 Ο. 24 in this section was research and analysis for Pacific 25 Gas and Electric, correct?

4418 1 Which particular consulting or research Α. 2 are you referring to? 3 The consulting and research you refer to Q. 4 at page 1, lines 20 and 21. 5 Α. Line what? Ο. 20 and 21. 6 7 Α. So are you referring specifically to 8 analyses of wholesale electricity market designs for 9 market participants including the development of 10 generation offer strategies? 11 That's correct. Ο. 12 Α. And the question was? 13 Ο. The consulting work you are referring to 14 in this section was research and analysis for Pacific Gas and Electric, correct? 15 16 That is correct. Α. 17 And your primary responsibility was to do Q. 18 research and analysis into the California ISO market, 19 correct? 20 Α. My primary responsibility had to do with 21 an analysis of the changes that were at that time 22 proposed to the California ISO market under the 23 market restructuring and technology update process. 24 And your consulting work for Pacific Gas Ο. 25 and Electric was from 2006 to 2007, correct?

1 Α. I believe so. It may have stretched into 2 2008. Moreover, I've also done research since then 3 that was motivated by work that I did while I was 4 working with Pacific Gas and Electric Company. 5 MR. ALEXANDER: Your Honor, I move to strike everything after the word "moreover..." 6 7 EXAMINER PRICE: We are going to deny the 8 motion to strike this time, but Dr. Sioshansi, I 9 would urge you to listen carefully to counsel's 10 question, answer counsel's question and only 11 counsel's question. To the extent you need 12 additional context or to expand upon the answer, I am sure Mr. Stinson will ask you questions on redirect. 13 14 THE WITNESS: Okay. 15 Q. You have not done any other consulting 16 work analyzing electric market design for any other 17 wholesale markets other than that 2006 and 2007 work 18 for Pacific Gas and Electric, correct? 19 Α. What was the question? 20 EXAMINER PRICE: Let's have the question 21 back. 22 (Record read.) 23 Α. That would depend on what you 24 characterize as consulting work. 25 Q. Dr. Sioshansi, do you recall being

## 4419

4420 1 deposed in this proceeding? 2 Α. I do. 3 And you were deposed twice, correct? Q. 4 Α. I do -- I was. 5 Ο. And at both depositions, there was a court reporter present? 6 7 Α. I believe there was. 8 And do you recall swearing an oath to Ο. tell the truth? 9 10 Α. Yes. I've placed copies of your deposition on 11 Ο. 12 the witness stand. Please get the copy of your 13 deposition taken on January 23, 2015. 14 Α. Okay. And please turn to page 27, line 10 and 15 Q. 16 let me know when you are there. 17 Α. I'm there. 18 Okay. And did I ask you, "Question: Ο. Did 19 you do any -- strike that. Have you done consulting 20 work of the wholesale electric -- electric market 21 design for any other markets? 22 "Answer: Consulting work on wholesale That's the only consulting work that I can 23 markets? 24 think of specifically analyzing electricity markets. 25 That's the only one I can recall right now." Did I

1 read that correctly? 2 Α. You did read that correctly. 3 MR. STINSON: Is this going to be marked 4 as an exhibit, counsel? 5 MR. ALEXANDER: No. MR. STINSON: Your Honor, I would ask 6 7 that it be marked as an exhibit so the entire 8 deposition could be a part of the record. 9 EXAMINER PRICE: That has not been our 10 practice thus far in the proceeding; however, if at the end of this, you want to move this as an exhibit, 11 12 we will entertain that at that point. 13 MR. STINSON: Thank you, your Honor. 14 (By Mr. Alexander) And so the only market Q. 15 participant you have done consulting work for is 16 Pacific Gas and Electric, correct? 17 Α. The only participant, yes. 18 Now, please turn to your direct testimony Ο. 19 page 1, line 22 where you reference your work on 20 developing generation offer strategies, and let me 21 know when you are there. 22 Α. I'm there. 23 Ο. This reference is also to your work for 24 Pacific Gas and Electric in 2006 and 2007, correct? 25 Α. When I originally wrote that, I was

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4422 primarily referring to when I was working with 1 2 Pacific Gas and Electric during that period of time. 3 Now that I think about it, however, when I worked for 4 Pacific Gas and Electric in 1998, I helped them with 5 their bidding strategies in the California power 6 exchanges forward market that had begun operation 7 then. 8 And that consulting work related to the Q. California ISO market, correct? 9 10 That was the California power exchange, Α. not the California ISO. 11 12 Q. Well, let's be clear. The 1998 work, 13 this was for the California power exchange? 14 Α. Yes. And the 2006 work was for the California 15 Ο. 16 TSO? 17 Α. Yes. 18 And this consulting work related to the Ο. 19 energy and ancillary services markets? 20 Α. The California power exchange work, if I 21 recall correctly, would have been solely for energy. 22 The California ISO market work, if I recall 23 correctly, would have been for energy and ancillary 24 services. 25 Q. Now, please turn to page 1, line 22 where

4423 you reference advising renewable technology 1 2 developers. Let me know when you are there. 3 Α. I'm there. 4 So the only technology you have worked Ο. 5 with is solar thermal generation; is that correct? What do you mean by the only technology I 6 Α. have worked with? 7 8 Okay. I will rephrase. The only 0. renewable technology you have worked with is solar 9 10 thermal generation, correct? 11 That is incorrect. Α. 12 Q. Okay. Please turn to page 29 of your 13 testimony -- excuse me, of your deposition, line 12. 14 Α. Page what? 15 Ο. Page 29, line 12. Let me know when you 16 are there. 17 Α. I'm there. 18 Okay. And did I ask you "Question: What Ο. 19 technologies were you working with? 20 The specific technology that I "Answer: 21 was working with was on solar thermal generation. 22 "Question: Any others? 23 "Answer: That was the only one at that 24 time, yes. 25 "Question: Were there any other

4424 technologies after that time? 1 2 "Answer: No." Did I read that 3 correctly? 4 Α. You did. 5 Ο. Okay. So with regard to the power purchase agreements you reference at line 23 of your 6 7 testimony, that power purchase agreement -- first of 8 all, there was just one power purchase agreement you're referencing there, right? 9 10 I don't know how many power purchase Α. agreements were negotiated by the company that I was 11 12 working with. 13 Ο. And what you were working on was the sale 14 of energy from a potential solar plant to a utility, correct? 15 16 It was not solely energy, that is Α. 17 incorrect. Okay. Please turn to page 29, line 20 of 18 Ο. 19 your deposition. Let me know when you are there. 20 I'm there. Α. 21 Ο. And did I ask you "Question: What was 22 the nature of the power purchase agreement you worked 23 on? 24 "Answer: The power purchase agreement 25 was essentially the sale of energy from a potential

4425 solar plant to a utility." Did I read that 1 2 correctly? 3 You did. Α. 4 Okay. And your advice to the solar Ο. 5 developer was modeling the potential value of the energy produced by the solar plant, correct? 6 7 Α. That is not correct. As it says later in 8 my deposition, I provided them analysis of the value 9 of energy ancillary service and other products. You did not forecast future energy prices 10 Ο. as part of that project, correct? 11 12 Α. As part of that particular project, no. 13 Ο. No, that is not correct, or no, did you not forecast? 14 15 Α. No, I did not. 16 And instead, you used projections of Ο. 17 future energy prices which had been provided to you 18 to determine the dollar value of energy produced by 19 the solar facility, correct? 20 Α. I used some prices that were provided to 21 me by the company that I was working with, some 22 prices that I obtained from elsewhere. And that solar PPA that we have been 23 Ο. 24 referring to was, again, in the California ISO 25 market, correct?

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| 1  | A. I don't know what market it operates in.           |
| 2  | Q. Okay. Please turn to page 64 of your               |
| 3  | deposition, line 12. Let me know when you are there.  |
| 4  | A. Okay.  |
| 5  | Q. "The solar thermal PPA you worked on as a          |
| 6  | consultant?   |
| 7  | "Answer: The solar thermal work that I                |
| 8  | did, that was in the California ISO market." Did I    |
| 9  | read that correctly?                                  |
| 10 | A. You did.   |
| 11 | Q. And you have never modeled a solar                 |
| 12 | purchase agreement in the PJM market, correct?        |
| 13 | A. What do you mean by modeling a power               |
| 14 | purchase agreement?                                   |
| 15 | Q. Well, in your consulting experience, you           |
| 16 | reference here at page 1, line 23, you reference your |
| 17 | "advice to renewable technology developers on         |
| 18 | structuring power purchase agreements." Do you see    |
| 19 | that?   |
| 20 | A. I do see that.                                     |
| 21 | Q. And we further discussed with the project          |
| 22 | that you worked on, you modeled the potential value,  |
| 23 | I believe you testified, with energy ancillary        |
| 24 | services, correct?                                    |
| 25 | A. That's correct.                                    |
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4427 1 Ο. And so my question is you have never done 2 similar modeling for a solar power purchase agreement 3 in the PJM market, correct? 4 That was not exactly what you asked me. Α. 5 You asked me if I modeled a power purchase agreement. 6 EXAMINER PRICE: Okay. Excuse me. 7 That's argumentative. You need to allow your counsel 8 to pose the objections, and you just need to focus on 9 answering the questions. 10 THE WITNESS: Okay. I'm answering that I modeled as it says in my deposition what the value of 11 12 energy ancillary services and other products from a 13 solar plant are. That can be done in the context of 14 a power purchase agreement or it can be done in any other context. 15 16 My question was you have never modeled a Ο. 17 solar power purchase agreement in the PJM market, 18 correct? 19 That question doesn't completely make Α. 20 sense. Have I modeled solar plants outside of 21 California in other parts of the country, the answer 22 is yes. 23 MR. ALEXANDER: Your Honor, I move to 24 strike. My question was limited to the PJM market. EXAMINER PRICE: Mr. Stinson. 25

4428 MR. STINSON: Your Honor, I think his 1 2 answer stands that he has performed that function in 3 other markets outside of California. 4 EXAMINER PRICE: Which would be a perfectly fair question for you to ask on redirect. 5 The motion to strike is granted. Please answer the 6 7 question. 8 THE WITNESS: What was the question 9 again? 10 EXAMINER PRICE: Let's have it back. (Record read.) 11 12 Α. Again, depending upon what you mean by 13 modeling the power purchase agreement, I have modeled 14 solar PV generation in the PJM market including other 15 markets. 16 Okay. Please turn to your deposition, Ο. 17 page 64, line 6. Let me know when you are there. 18 Α. I'm there. 19 Did I ask you "Question: And, in fact, Q. 20 you've modeled the solar PPA in the PJM wholesale 21 market, correct? 22 "Answer: I have not modeled a solar PPA 23 into the PJM market, no." Did I read that correctly? 24 You did; however, this deposition was Α. 25 taken in January. I have done work since then.

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| 1  | Q. Please turn to page 4, line 4 of your             |
| 2  | direct testimony. Are you there?                     |
| 3  | A. I am.   |
| 4  | Q. You believe that rider RRS would                  |
| 5  | constitute a subsidy, correct?                       |
| 6  | A. I do.   |
| 7  | Q. I would like to explore your definition           |
| 8  | of the word subsidy with a hypothetical. Assume that |
| 9  | in the year 2020 the companies' customers will       |
| 10 | receive a credit of \$100 million. Do you understand |
| 11 | the hypothetical I have asked you to assume?         |
| 12 | A. The hypothetical is a one time credit in          |
| 13 | 2020?  |
| 14 | Q. That's correct, of \$100 million.                 |
| 15 | A. Just a windfall payment.                          |
| 16 | Q. No, the hypothetical is the companies'            |
| 17 | customers will receive a credit of \$100 million in  |
| 18 | the year 2020.                                       |
| 19 | A. From this program?                                |
| 20 | Q. From rider RRS, yes.                              |
| 21 | A. Okay. There are no other credits or               |
| 22 | charges any other years?                             |
| 23 | Q. We are just talking about the year 2020.          |
| 24 | A. Okay.   |
| 25 | Q. So do you understand the hypothetical?            |
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| 1  | A. I believe so.                                     |
| 2  | Q. All right. So if customers receive a              |
| 3  | credit in the year 2020, you would agree that rider  |
| 4  | RRS would not constitute a subsidy in the year 2020, |
| 5  | correct?   |
| 6  | A. I don't know that I could answer that             |
| 7  | just on the basis of what you are telling me happens |
| 8  | in the year 2020.                                    |
| 9  | Q. Okay. Let's go to your deposition, page           |
| 10 | 44, starting at line 6. Let me know when you are     |
| 11 | there.   |
| 12 | A. Okay.   |
| 13 | Q. Actually start on line 11. This was a             |
| 14 | stricken question there. Did I ask you "If the       |
| 15 | companies' customers receive a credit in the year    |
| 16 | 2020, do you believe that in that year they will be  |
| 17 | subsidizing FirstEnergy Solutions?                   |
| 18 | "Answer: So in the hypothetical                      |
| 19 | situation that the that ratepayers receive a         |
| 20 | \$100 million credit, are they subsidizing the plant |
| 21 | in that specific year?                               |
| 22 | "Question: Correct.                                  |
| 23 | "Answer: That's the question?                        |
| 24 | "Question: Yes.                                      |
| 25 | "Answer: In this specific year, no, they             |
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4431 would not be. That doesn't say whether ratepayers 1 2 would be subsidizing the plants over the period, the 3 full 15-year period of the PPA." Did I read that 4 correctly? 5 Α. You did. And so you would agree that in every year 6 Ο. 7 in which rider RRS is actually a credit, customers 8 would not be subsidizing FES in that year, correct? 9 Well, I think what I said in the Α. 10 deposition speaks for itself. 11 Ο. You have to answer the question now, 12 Dr. Sioshansi. 13 MR. ALEXANDER: Your Honor, could the 14 reporter --15 Α. So, specific --16 EXAMINER PRICE: Why don't you finish 17 your answer, Dr. Sioshansi, and we will go from 18 there. 19 THE WITNESS: In that specific year, no, 20 they would not be subsidizing. However, looking at 21 the single year in isolation doesn't provide the full 22 picture of what effect the rider would have. 23 MR. ALEXANDER: Your Honor, I move to 24 strike everything after the word "however." EXAMINER PRICE: Sustained -- or granted. 25

4432 1 Ο. Now, Dr. Sioshansi, I would like to 2 discuss your understanding of subsidies generally. 3 You would agree with me that subsidies are not 4 necessarily bad things, correct? 5 Α. Not necessarily, no. And if a market is not -- excuse me, if a 6 Ο. 7 market is not operating at optimal efficiency, you 8 would agree a subsidy could be beneficial, correct? 9 MR. STINSON: I am going to object. Lack 10 of foundation, your Honor. 11 MR. ALEXANDER: Your Honor, the witness's 12 direct testimony argues that since rider RRS would be 13 a subsidy, it would have an adverse impact on the 14 wholesale markets, and so I'm exploring why he believes that. 15 16 EXAMINER PRICE: Mr. Stinson. 17 MR. STINSON: I still believe he needs 18 more foundation, your Honor, as to what he is talking 19 about whether that would create a subsidy or not. 20 EXAMINER PRICE: Overruled. He can 21 answer if he understands the question. Can I have 22 the question back. 23 (Record read.) 24 Α. Not necessarily, no. 25 Q. Okay. Please turn to page 46 of your

4433 deposition starting at line 6. Let me know when you 1 2 are there. 3 Α. I'm there. I asked you "Question: Because if 4 Ο. 5 markets are not operating at optimal efficiency, a subsidy could be helpful? 6 7 "Answer: That could be one situation 8 that a subsidy could be beneficial." Did I read that 9 correctly? 10 Α. You did. And, Doctor, you also believe that 11 Ο. 12 subsidies could be beneficial for new technologies 13 like solar, correct? Could be. 14 Α. And you believe subsidies could be 15 Q. 16 beneficial for environmental reasons, correct? 17 MR. STINSON: Object. Again, I am going 18 to object to the -- to the form of the question, just 19 to the form of the question at this point and the 20 foundation for beneficial. 21 EXAMINER PRICE: I'll overrule the 22 foundation aspect, but if you would go ahead and rephrase your question. 23 24 (By Mr. Alexander) Okay. Dr. Sioshansi, Ο. 25 you believe that a subsidy could be economically

4434 1 beneficial to the marketplace to address 2 environmental concerns such as concerns about carbon, 3 correct? 4 MR. STINSON: Same objection, your Honor. 5 EXAMINER PRICE: Grounds? MR. STINSON: Economically beneficial. 6 7 There's no basis for that. I don't know what the 8 basis for that is in the record. 9 MR. ALEXANDER: Well, your Honor, I don't 10 know why you would ever need basis for words in the record. The words are what they are. The witness 11 12 has already answered three questions using those 13 exact same words and in the deposition used the exact 14 same words without objection. 15 EXAMINER PRICE: Overruled. 16 THE WITNESS: Can you repeat the 17 question? 18 (Record read.) There are instances that it could be. 19 Α. 20 You believe that subsidies could also be Ο. 21 beneficial for economic development reasons, correct? 22 What do you mean by economic development? Α. Encouraging a manufacturer to locate in a 23 Ο. 24 certain location. 25 Α. If that's someone's policy objective, it

4435 1 could be. 2 Now, I would like to focus your attention Ο. 3 on page 4, line 13 of your direct testimony and your argument number two. Let me know when you are there. 4 5 Α. I'm there. Now, you don't know whether solar 6 Ο. 7 resources are subsidized by the State of Ohio, 8 correct? 9 I'm not aware of the detail. Α. And you don't know whether wind resources 10 Q. are subsidized by the State of Ohio, correct? 11 12 Α. That is correct. I don't know that 13 detail. 14 And you don't know whether wind resources Q. are subsidized at the federal level, correct? 15 16 Α. I don't know that detail. 17 Q. And you have never modeled the impact of 18 renewable subsidies on the competitive market, 19 correct? 20 I don't know definitively one way or Α. 21 another without going back through my full research 22 record. 23 Ο. But you don't recall ever having modeled 24 the impact of renewable subsidies on a competitive 25 market, correct?

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| 1  | A. Again, that would be difficult to answer           |
| 2  | without going through my research record. I have      |
| 3  | modeled the effect of having renewables with          |
| 4  | subsidies in electric power systems. I don't know     |
| 5  | that I have specifically looked at the effect on the  |
| 6  | competitive market.                                   |
| 7  | MR. ALEXANDER: Can I have that question               |
| 8  | and answer read back, your Honor.                     |
| 9  | EXAMINER PRICE: You may.                              |
| 10 | (Record read.)  |
| 11 | Q. You don't know whether demand response             |
| 12 | resources receives a subsidy, correct?                |
| 13 | A. I don't.   |
| 14 | Q. And you don't have any opinion as to the           |
| 15 | effect of renewable subsidies on the PJM market,      |
| 16 | correct?  |
| 17 | A. Can you repeat the question or reread the          |
| 18 | question?   |
| 19 | (Record read.)  |
| 20 | A. No, I don't.                                       |
| 21 | Q. Please turn to pages 12 and 13 of your             |
| 22 | testimony where you discuss your opinion on how rider |
| 23 | RRS could undermine PJM markets. Let me know when     |
| 24 | you are there.  |
| 25 | A. Where on page 12?                                  |
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4437 There's no specific reference. I am 1 Q. 2 pointing you to this argument. 3 Α. Okay. 4 And first, I would like to focus your Ο. 5 attention on energy markets, okay? 6 Α. Okay. 7 Q. Now, you believe that offers both above 8 and below true costs could cause the PJM energy market to operate inefficiently, correct? 9 10 MR. STINSON: Could I have that reread, your Honor, please? 11 12 EXAMINER PRICE: You may. 13 (Record read.) MR. STINSON: Object on the basis of the 14 foundation of as to offers. I don't know what we are 15 16 talking about. 17 MR. ALEXANDER: Your Honor, these are the 18 witness's words page 12, line 17 and 18. 19 EXAMINER PRICE: Overruled. You can 20 answer the question. 21 THE WITNESS: Oh, the question was what? 22 I can repeat it. Do you believe that Q. offers both above and below true costs could cause 23 24 the PJM energy market to operate inefficiently, 25 correct?

4438 I believe such offers could have that 1 Α. 2 kind -- those kinds of effects. 3 Now, you have never sold energy in the Q. 4 day-ahead market, correct? 5 Α. Meaning I myself have not sold energy from a generating unit? 6 7 Ο. That's correct. 8 Α. Into a day-ahead market? That is 9 correct. And you have similarly never sold energy 10 Q. in the realtime energy market, correct? 11 12 Α. That is correct. 13 Ο. But you are generally aware there are 14 written rules in the PJM manual which govern the offering of energy in the day-ahead market, correct? 15 16 I understand that there are restrictions Α. 17 on offer -- on how offers into the market can be 18 structured. 19 My question was, you are aware that there Q. 20 are written rules which govern -- in the PJM manual 21 which govern the offering of energy into the PJM 22 market, correct? 23 Α. Yes, I believe so. 24 However, you have never read the PJM Ο. 25 written rules which govern the offering of energy in

4439 1 the day-ahead market, correct? 2 Α. No, I haven't. 3 And you don't know whether PJM energy Ο. 4 market offers are made by plant or by unit, correct? 5 Α. I don't know that detail, no. And you don't know whether PJM offers are 6 Ο. 7 based on marginal costs or average variable costs, 8 correct? 9 I don't know that detail. Α. 10 And you don't know the specific structure Q. of offers that gets submitted to the market on a 11 12 daily basis, correct? 13 Α. I don't know that detail. 14 Now, you are aware that all offers are Q. 15 monitored by the PJM market monitor, correct? 16 My understanding is that there is an Α. 17 independent market monitor that examines the offers. 18 And however, you don't know the specific Ο. 19 criteria used by the market monitor to monitor those 20 offers, correct? 21 Α. No, I am not aware of the specific 22 criteria he used. 23 Ο. And you are also aware that FERC has 24 jurisdiction to examine market participation, 25 correct?

4440 1 I'm generally aware of that, yes. Α. 2 Ο. And you are also generally aware that the 3 market monitor and FERC have rules to prevent 4 improper bidding behavior in PJM, correct? 5 Α. My understanding is that they have rules that are intended to do that. 6 7 MR. ALEXANDER: Should I continue, your 8 Honor? 9 EXAMINER PRICE: No, you're fine. And you are not aware of the written FERC 10 Q. policies which govern bidding behavior, correct? 11 12 Α. No, I am not aware of those specific 13 policies. 14 And you would agree that it could make Q. sense for a generator to offer into the energy market 15 16 at a value below their average variable cost, 17 correct? 18 MR. STINSON: Could I have that reread, 19 please, your Honor. 20 EXAMINER PRICE: Please. 21 (Record read.) 22 MR. STINSON: I object on the basis of the foundation to making sense. 23 24 MR. ALEXANDER: I'll rephrase. 25 Q. You agree there could be situations in

4441 which it was logical for a generator to offer into 1 2 the energy market at below their average variable 3 cost, correct? 4 MR. STINSON: Same objection as to 5 logical. I don't know what we are talking about. MR. ALEXANDER: Your Honor, the witness 6 7 testifies that offers above or below true costs could 8 have an impact on short run efficiency in the PJM 9 market. This question asks whether an offer below 10 average variable cost would be logical from the sense of the person making the offer. 11 12 EXAMINER PRICE: The witness can answer 13 the question if he understands it. 14 THE WITNESS: I'm sorry? EXAMINER PRICE: You can answer the 15 16 question if you understand it. 17 THE WITNESS: Can the question be reread? 18 (Record read.) 19 I don't know what you mean by logical. Α. 20 Logical to whom? 21 Ο. Okay. Could it be profit maximizing in 22 situations for a generator to offer into the energy market at below its average variable cost? 23 There are situations that it could be 24 Α. 25 with the caveat that it depends on the market rules

4442 and the structure of bids or the offers that are 1 2 submitted to the market. 3 And one of the reasons where it could Ο. 4 make sense for a generator to offer below its average 5 variable cost is based on the operating characteristics of the plant which is being bid at, 6 7 correct? 8 MR. STINSON: Objection, same objection as to makes sense. 9 EXAMINER PRICE: Overruled. I think he's 10 laid the foundation now. 11 12 THE WITNESS: Can the question be reread? 13 EXAMINER PRICE: Let's go off the record 14 for one moment. (Discussion off the record.) 15 16 EXAMINER PRICE: Let's go back on the 17 record. 18 (Record read.) 19 So if by making sense you again are using Α. 20 the definition of profit maximizing, the answer would 21 be that is a possibility again depending upon the 22 market rules and the structure of the offers into the 23 market. 24 And one of those operating Ο. 25 characteristics which must be taken into account is

the ramp-up time for the unit? 1 2 Α. Ramp-up time is an example of a 3 characteristic that could factor in. 4 And you would agree that the ramp-up time Q. 5 for a coal unit is typically longer than one hour, 6 correct? 7 I don't know definitively without Α. 8 studying the characteristics of the plant in question. 9 10 Okay. Another operating characteristic Ο. to be taken into account is the minimum run time for 11 12 the plant, correct? That is another characteristic that could 13 Α. 14 be taken into account, yes. 15 Q. And you would agree ramp-up times and 16 minimum times would both be reasons why a generator 17 would offer below its average variable cost in 18 certain hours, correct? 19 Again, I would agree with the caveat that Α. 20 it does depend on the market rules and the structure 21 of the bids. So, for example, if the market allows 22 bids that take into account those operating 23 characteristics, that actually reduces the need for a 24 plant to bid below average cost. 25 Q. But you are aware that the plants can be

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4444 1 offered at something other than their marginal costs, 2 correct? 3 That's my understanding. Α. 4 And you don't know whether current PJM Ο. 5 market participants have the ability to offer energy above their marginal costs through price offers, 6 7 correct? 8 Α. I don't know that detail. 9 Ο. You don't know the rules which govern 10 above cost offers at PJM, correct? 11 Α. I don't know the details. 12 Q. And you don't know whether companies are 13 required to make cost based offers at PJM in the 14 day-ahead market, correct? My understanding has been but without 15 Α. 16 knowing the details, that some -- some generators are 17 required to make cost-based bids and some can make 18 price-based bids, but I don't know the details of 19 that, what distinguishes plants into those 20 categories. 21 MR. ALEXANDER: Could I just have the 22 first sentence of that answer read, please? 23 EXAMINER PRICE: You may. 24 (Record read.) 25 Q. Okay. Doctor, I think that first

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| 1  | sentence might have come out a little bit garbled, so |
| 2  | the question is, you don't know for sure what the     |
| 3  | market offer rules are at PJM regarding cost-based    |
| 4  | offers, correct?                                      |
| 5  | A. No.  |
| 6  | Q. And you would agree that at page 12, line          |
| 7  | 18 excuse me, line 17, there you are referencing a    |
| 8  | price-based offer, correct?                           |
| 9  | A. Yes, a price-based offer would be an               |
| 10 | example.  |
| 11 | Q. So in your hypothetical starting at page           |
| 12 | 12, line 17, you are assuming the plants are offered  |
| 13 | in below their true costs via a price-based offer?    |
| 14 | A. That's one situation that I believe would          |
| 15 | fit the hypothetical.                                 |
| 16 | Q. And you agree that PJM makes dispatch              |
| 17 | decisions based on the price-based offer submitted by |
| 18 | the plant rather than the plants' costs in most       |
| 19 | circumstances?  |
| 20 | A. My understanding is that they make                 |
| 21 | commitment and dispatch decisions based off of the    |
| 22 | offers that are submitted subject to any mitigation   |
| 23 | steps that the market monitor takes.                  |
| 24 | Q. When you say subject to the offers being           |
| 25 | submitted, you are referring to the price-based       |
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4446 1 offers, correct? 2 Α. That's my understanding. 3 And you aren't aware of the PJM energy Ο. 4 market rules addressing when PJM can change a 5 price-based offer, correct? No, I don't know those details. 6 Α. 7 Ο. Now, I would like to discuss how 8 traditional vertically integrated generation 9 participates in the PJM market. You understand that 10 regular -- regulated generation currently participates in the PJM energy market, correct? 11 12 Α. I believe but don't know of specific 13 cases that regulated generation can participate in the market. 14 15 Ο. And, in fact, regulated generation does 16 participate in the PJM market, correct? 17 I'm not 100 percent how much does or Α. 18 doesn't. 19 I am not asking you to quantify Q. Yeah. 20 it. I am just asking you whether some regulated 21 generation currently participates in the PJM market. 22 Α. I believe, but I am not certain. 23 Ο. Okay. And you don't know whether PJM has 24 different bidding rules for regulated generation 25 assets, correct?

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| 1  | A. I don't.   |
| 2  | Q. And you can't identify any bidding rule            |
| 3  | which is different for regulated and unregulated      |
| 4  | generation in the PJM market, correct?                |
| 5  | A. I don't know those details.                        |
| 6  | Q. Okay. And at page 12, line 10, when you            |
| 7  | are talking about the PJM-operated wholesale markets, |
| 8  | you are also referencing the capacity market,         |
| 9  | correct?  |
| 10 | A. Sorry. Page 12, lines 9 and 10?                    |
| 11 | Q. That's correct.                                    |
| 12 | A. Given that I am talking about short-run            |
| 13 | efficiency benefits, I think this would primarily     |
| 14 | apply to the day ahead and real-time markets.         |
| 15 | Q. Okay. Let's turn to then page 14, line             |
| 16 | 6, where you talk about long run efficiency of the    |
| 17 | PJM run wholesale markets, do you see that?           |
| 18 | A. I do.  |
| 19 | Q. And in that section, are you referring to          |
| 20 | the capacity market as well as the energy market?     |
| 21 | A. In line 6 and 7, this would be referring           |
| 22 | to the day ahead realtime and capacity markets.       |
| 23 | Q. And you believe that rider RRS could have          |
| 24 | an impact on PJM markets but not necessarily that it  |
| 25 | would have an impact on PJM markets, correct?         |
|    |   |

4448 1 I would say that's a fair Α. 2 characterization without knowing how the assets or 3 the units would be offered into the market and how 4 they would be operated, I couldn't make a definitive 5 statement one way or the other what the effect would 6 be. 7 Now, none of your educational background Q. 8 pertains specifically to the design of the PJM 9 capacity market, correct? 10 So do you mean to the specific rules of Α. 11 the PJM market or the general design principles 12 underlying the PJM market? 13 Ο. The rules of the PJM market. 14 Α. So the specific rules, no. The general 15 design philosophy, yes. 16 MR. ALEXANDER: Your Honor, I move to 17 strike the "general design philosophy" addendum. 18 MR. STINSON: It explains his answer, 19 your Honor. 20 MR. ALEXANDER: Your Honor, I had 21 clarified the witness had a question about the 22 answer, and I narrowed it just to the PJM rules at 23 the witness's request. 24 EXAMINER PRICE: I mean, we will grant 25 the motion to strike.

4449 And none of your work experience directly 1 Ο. 2 pertains to the PJM capacity market, correct? 3 I can't think of any work that directly Α. 4 pertains to it. 5 Ο. You have never participated in making offers into the base residual auction, correct? 6 7 Α. That would be correct. 8 And you don't know where the PJM rules Ο. which govern capacity offers into the base residual 9 auction are located, correct? 10 MR. STINSON: Objection, vague, your 11 12 Honor. 13 EXAMINER PRICE: Can I have the question 14 back, please. Can we have the question again? MR. ALEXANDER: I'll rephrase the 15 16 question, your Honor. 17 EXAMINER PRICE: Okay. 18 You have never read the PJM capacity Q. 19 auction bidding rules, correct? 20 The specific bidding rules and tariffs, Α. 21 no. However, I have read documents on PJM's website 22 describing the structure and design of the market. 23 MR. ALEXANDER: Your Honor, I move to 24 strike everything after the word "however." 25 MR. STINSON: Your Honor, it explains his

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1 answer.

| 2  | EXAMINER PRICE: We are going to allow                |
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| 3  | this one, but again, I am going to caution the       |
| 4  | witness please try to answer Mr. Alexander's         |
| 5  | questions and only Mr. Alexander's questions. If you |
| 6  | need to explain your answer, you will do that on     |
| 7  | redirect with Mr. Stinson, okay?                     |
| 8  | Q. Doctor, you are not aware of any limits           |
| 9  | on how a generator can price its bid into the PJM    |
| 10 | capacity market, correct?                            |
| 11 | A. I'm not aware of any specific I am not            |
| 12 | aware of the specifics of the bidding rules.         |
| 13 | Q. And you are not aware of any rules                |
| 14 | governing bid caps in the PJM capacity market,       |
| 15 | correct?   |
| 16 | A. I'm not aware of any I am not aware of            |
| 17 | any specifics of rules on bid caps.                  |
| 18 | Q. And you are not aware of whether a plant          |
| 19 | can bid above its ACR value in the PJM capacity      |
| 20 | market, correct?                                     |
| 21 | MR. STINSON: Object, your Honor. I                   |
| 22 | believe asked and answered. The witness said he      |
| 23 | didn't know the PJM bidding rules specifically.      |
| 24 | EXAMINER PRICE: He can answer if he                  |
| 25 | knows.   |
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| 1  | THE WITNESS: The question again was?                  |
| 2  | EXAMINER PRICE: Please.                               |
| 3  | (Record read.)  |
| 4  | A. I'm not aware of any specific rules.               |
| 5  | Q. And you don't know whether a plant can             |
| 6  | bid into the PJM capacity market at zero as a price   |
| 7  | taker, correct?                                       |
| 8  | A. I don't know definitely one way or                 |
| 9  | another.  |
| 10 | Q. And you don't know whether any resources           |
| 11 | currently ever bid into the PJM capacity market at    |
| 12 | zero, correct?  |
| 13 | A. I don't know. I have never examined the            |
| 14 | bids into the PJM market.                             |
| 15 | Q. And you don't know whether regulated               |
| 16 | generation plants ever participate in the PJM         |
| 17 | capacity market, correct?                             |
| 18 | A. I don't know for certain, no.                      |
| 19 | Q. And you don't know whether there's any             |
| 20 | difference in the bidding rules between regulated and |
| 21 | unregulated generation in the PJM capacity market,    |
| 22 | correct?  |
| 23 | A. I don't know of any specific differences.          |
| 24 | Q. And you believe that the market monitor            |
| 25 | and FERC both examined the bids into the PJM capacity |
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4452 1 market, correct? 2 Α. My understanding is that the market 3 monitor examines them on a daily basis. I don't know 4 the frequency with which FERC examines the bids. 5 Ο. But you do agree FERC does examine the bids. 6 7 I believe that they do. Α. 8 And you don't know the details of how Ο. 9 each of those entities actually examine bids, 10 correct? 11 No, I don't. Α. 12 Q. And you don't know the rules regarding 13 demand responses participation in PJM markets, 14 correct? I don't know the specific rules, no. 15 Α. 16 And you don't know whether demand Ο. 17 response resources have the same performance 18 obligations as traditional generation resources, correct? 19 20 I don't know the full details of their Α. 21 performance obligation. 22 And you weren't aware of the PJM capacity Q. 23 performance plan changes to the demand response 24 rules, correct? 25 Α. I'm sorry, that question was in

4453 response -- was in regard to the capacity performance 1 2 product? 3 The plan, yes. Q. 4 Α. And if you -- if the question could just 5 be reread. EXAMINER PRICE: 6 Please. 7 (Record read.) 8 I believe but don't know the details that Α. 9 are -- that there are some changes to the 10 requirements for demand response and generation participating in the capacity performance product 11 12 under the proposal. 13 Ο. So you have already testified as to your 14 knowledge about regulated generation in the PJM 15 system. So just bringing you back to that topic, I 16 don't want to ask and answer a question we have 17 already covered. But you are generally aware that 18 regulated generation is typically given the 19 opportunity to recover all of its prudently incurred 20 costs, correct? 21 Α. Yes. I believe as a regulatory aim, 22 regulated generation is offered the opportunity to 23 recover prudently incurred costs. 24 And you are not providing any opinion in Ο. 25 this proceeding as to whether regulated generation

4454 would adversely affect the long-run efficiency of the 1 2 PJM market, correct? 3 No, I'm not. Α. 4 Okay. Now, please turn to page 16, line Ο. 5 15 where you discuss how the plans would be offered and let me know when you are there. 6 7 Α. Did you say line 15? 8 Ο. Line 5. 9 Oh, line 5. Okav. Α. 10 Q. Now, you are not aware of any generator which has publicly disclosed its offer strategy, 11 12 correct? 13 Α. No, I am not. 14 And you are not aware of any generator Q. which has produced its offer strategies subject to a 15 16 confidentiality agreement, correct? 17 Α. What do you mean by produced its offer 18 strategy under a confidentiality agreement? 19 Providing its offer strategy to a third Q. 20 party pursuant to a confidentiality agreement. 21 Α. I don't know insomuch as I have never 22 entered into such a confidentiality agreement. 23 And you are not recommending any specific Ο. 24 offer strategy for the companies to use if their 25 proposal is approved, correct?

4455 1 Α. No, I am not. I'm cautioning about the 2 issues surrounding the potential offer strategies 3 that the PPA and rider raise. 4 Now, you have not reviewed the term sheet Q. 5 describing the proposed PPA between the companies and FES, correct? 6 7 Α. I haven't reviewed it in detail, no. 8 Now, please turn to page 19, line 6 where Ο. 9 you discuss the Commission's opportunity to disallow 10 the costs. Let me know when you are there. The sentence beginning on line 5? 11 Α. 12 Q. Yes, the word "thus." 13 Α. Yes. 14 Now, you were not aware of any provision Q. in the term sheet which limits staff's ability to 15 16 review costs at the plant, correct? 17 My understanding has been that staff Α. 18 would not have access to -- access to and the ability to audit FES's costs. 19 20 Q. And when you say FES's costs, I am not 21 sure you are answering my question. My question was 22 you are not aware of any provision of the term sheet 23 which limits staff's ability to review costs at the 24 Sammis and Davis-Besse plants, correct? 25 Α. Again, it would depend on what you mean

by review. So my understanding is that they would be 1 2 able to review essentially what the monthly or 3 quarterly charge from FES to the companies would be. 4 However, as far as I know, there would not be an 5 opportunity to understand what led to those costs, 6 what decisions were made by FES and what the entire 7 generation portfolio operated by FES in any cross 8 subsidy between plants if there were any issues of 9 that sort. 10 Ο. So you base this portion of your testimony on the assumption that staff would not have 11 12 the ability to review the specific going forward 13 costs at Sammis and Davis-Besse, correct? I base it on that and also whether there 14 Α. 15 would be the ability to audit all the costs incurred 16 by FES. 17 EXAMINER PRICE: Doctor, when you say all 18 the costs incurred by FES, are you talking throughout 19 their entire fleet, incurred by FES throughout their 20 fleet or all costs incurred by FES with respect to 21 the plants at issue?

THE WITNESS: Potentially I am speaking across the entire fleet. So a hypothetical I could think of is if FES -- if FES has a high cost and a low cost fuel contract, it's not clear whether the

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4457 high cost fuel contract would be allocated to these 1 2 three units and the low cost contracts allocated to 3 other units within the FES fleet. 4 EXAMINER PRICE: Thank you. Thank you, 5 Mr. Alexander. (By Mr. Alexander) Now, please turn to 6 Ο. 7 page 20, line 13 where you discuss whether the 8 companies believe their own analysis. Let me know 9 when you are there. 10 Α. I am. 11 Ο. You have not analyzed FES's financial 12 statements, correct? 13 Α. No, I have not. 14 And you don't have any opinion as to Ο. 15 whether FES is capable of making the financial 16 investments needed to keep the plants operational 17 over the short-term, correct? 18 No, I have not. Α. 19 Please turn to page 29, line 6 where you Ο. 20 discuss fuel diversity. Let me know when you are 21 there. 22 Α. I am. 23 You believe that fuel diversity could Ο. 24 help provide more stable electric pricing to retail 25 customers, correct?

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| 1  | A. Not necessarily.                                   |
| 2  | Q. You believe that fuel diversity could              |
| 3  | help provide more stable electric pricing to retail   |
| 4  | customers, correct?                                   |
| 5  | A. No, not necessarily.                               |
| 6  | Q. Okay. Let's go to your deposition page             |
| 7  | 174, line 7. Let me know when you are there.          |
| 8  | A. I am.  |
| 9  | Q. I am going to ask you "Question: Do you            |
| 10 | believe that fuel diversity helps provide more stable |
| 11 | electric pricing to retail customers?                 |
| 12 | "Answer: It could." Did I read that                   |
| 13 | correctly?  |
| 14 | A. You did, and I believe that's consistent           |
| 15 | with what I just said. It could, meaning not          |
| 16 | necessarily.  |
| 17 | Q. You believe that fuel diversity could              |
| 18 | provide more stable electric prices because power     |
| 19 | sources could be substituted in response to fuel      |
| 20 | price changes, correct?                               |
| 21 | A. It could happen but not necessarily.               |
| 22 | Q. And you've never studied the volatility            |
| 23 | of fuel prices, correct?                              |
| 24 | * * * * *   |
| 25 | A. Not in detail. I have looked at                    |
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| 1  | historical fuel prices but, again, not in detail to  |
| 2  | study volatility.                                    |
| 3  | Q. Let's turn to your supplemental                   |
| 4  | testimony, specifically start at page 6, line 15.    |
| 5  | A. Okay.   |
| 6  | Q. You would agree that in the AEP Ohio              |
| 7  | order you cite in your testimony the Commission      |
| 8  | expressly addressed whether customers would benefit  |
| 9  | from AEP Ohio's proposed power purchase agreement,   |
| 10 | correct?   |
| 11 | A. I believe, if I recall, that they stated          |
| 12 | that as a criteria.                                  |
| 13 | Q. Now I would like to discuss your nine             |
| 14 | proposed criteria. You believe that each of your     |
| 15 | nine proposed criteria should be weighed against one |
| 16 | another when evaluating the PPA, correct?            |
| 17 | A. What do you mean by weighed against one           |
| 18 | another?   |
| 19 | Q. The Commission should look at you                 |
| 20 | believe that the Commission should look at your nine |
| 21 | proposed factors and weigh them against one another, |
| 22 | compare them against one another, correct?           |
| 23 | A. Again, I am totally unclear about what            |
| 24 | you mean by compare them to one another.             |
| 25 | Q. I am using your words. So let's see if            |

we can clarify it that way. Let's go to your 1 2 supplemental deposition taken on May 27, 2015, and if 3 you could start at page 24, line 21. Let me know 4 when you are there. 5 Α. I'm there. Did I ask you "Question: I understand 6 Ο. your point as far as the accuracy of future 7 8 projections. I understand what you are trying to 9 prove. I just want to understand if you believe the 10 Commission has to find that each of these nine factors benefit ratepayers or whether you believe the 11 12 Commission should weigh these factors. That's all I want to know." 13 You said "Answer: Well, the factors 14 should be weighed against one another." Did I read 15 16 that correctly? 17 Α. You did. 18 Now, you created each of these nine Ο. criteria yourself, correct? 19 20 Α. T did. 21 Ο. You are not aware of any articles or 22 scholarly works of any kind which support the 23 position of these nine factors when evaluating a 24 proposed power purchase agreement, correct? 25 Α. That would depend on what you mean by

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1 scholarly work. So I don't know of any -- I myself 2 don't know of any academic research that looks at the 3 question of whether customers should fund the 4 operation of an unregulated generator through an 5 affiliate transaction and passthrough of costs from 6 the affiliated generator to customers.

So if you are asking within that narrow context, I don't know of any research on that topic because to be honest, people who study competitive or restructured electricity markets would not study this question because it is an anathema to market restructuring.

Now, there is a basis for these suggested criteria which is that if you are going to consider a proposal, in this case the PPA and rider RRS, you should compare it to what other alternatives are available and the alternative of the status quo, the do nothing alternative. That, I would characterize as coming from the principle of optimality

20 MR. ALEXANDER: Your Honor, I move to 21 strike the entire response. The question was whether 22 there were any scholarly works, not a complete 23 evaluation of the proposal.

24 EXAMINER PRICE: Is the answer to his 25 question no, you are not aware of any scholarly

4462 1 works? 2 THE WITNESS: Pardon me? 3 EXAMINER PRICE: Is the answer to his 4 question no, you are not aware of any scholarly works? 5 THE WITNESS: No, no one studies this 6 7 problem. 8 EXAMINER PRICE: You got your record. 9 Move on. Denying your motion to strike. 10 Q. Now, let's please turn to page 10, line 4 where you discuss your first recommendation. Are you 11 12 there? 13 Α. I am. 14 Now, you are aware of Mr. Rose, Company Q. 15 Witness Rose, providing a pricing scenario in this 16 proceeding, correct? 17 Α. I am aware that he has done so, yes. 18 And you are not aware of any Ο. 19 independently produced pricing scenarios which are 20 available for the ATSI region, correct? 21 Α. I don't know of availability of pricing 22 scenarios for the ATSI region. 23 Ο. And you were not aware of any 24 independently produced future pricing scenarios which 25 are nodal in nature, correct?

4463 I don't know specifically whether there 1 Α. 2 are or not. 3 And you are not aware of any restriction Ο. 4 on the intervenors to this case from providing their 5 own pricing scenarios, correct? I don't know about a restriction to 6 Α. 7 provide pricing scenarios. There could be 8 restrictions on them doing this type of assessment. 9 EXAMINER PRICE: Can you explain your 10 answer? 11 THE WITNESS: Sure. So to do this kind 12 of an assessment, I feel to do it properly there 13 would be a lot of data required that an intervenor 14 may not have access to. So, for example, the 15 operating characteristics, operating costs to the 16 plants, how the plants would be offered into the PJM 17 market if the rider were approved, factors like that. 18 So the best that an intervenor could do is make 19 assumptions around some of those. 20 EXAMINER PRICE: Have you reviewed all 21 the discovery responses in this case? 22 THE WITNESS: Pardon me? 23 EXAMINER PRICE: Have you reviewed all of 24 the discovery responses in this case? 25 THE WITNESS: Not every single one, no.

4464 EXAMINER PRICE: Have you ever reviewed 1 2 the vast majority of discovery responses in this 3 case? 4 THE WITNESS: I honestly don't know as a 5 percentage how much of the discovery I've reviewed in detail. 6 7 EXAMINER PRICE: Well, the company 8 responded something along the order of 998 discovery 9 responses to the Sierra Club at one point. Have you 10 reviewed anywhere near 998 discovery responses? THE WITNESS: I really don't recall. 11 12 Q. (By Mr. Alexander) Have you reviewed --13 MR. ALEXANDER: I'm sorry, your Honor. 14 EXAMINER PRICE: Thank you, Mr. Alexander. 15 16 Have you reviewed the plants' specific Ο. 17 cost information that was produced by the companies 18 in this proceeding? I recall having seen it. I didn't look 19 Α. 20 at it in detail. 21 Ο. And you would also agree that there are 22 commercially available models which model the -strike that. 23 24 And you would agree that if the 25 independent energy prices used in the dispatch

4465 analysis are found satisfactory by the Commission, 1 2 then your first prong would be met, correct? 3 EXAMINER PRICE: Can I have that question 4 back. 5 (Record read.) MR. STINSON: I am going to object on a 6 7 couple of bases, your Honor, as to what Commission 8 and what dispatch analysis. 9 EXAMINER PRICE: Well, I think we all 10 assumed he was referring to the Public Utilities Commission of Ohio; however, I do think Mr. Alexander 11 12 needs to rephrase. I think he jumped ahead a little 13 bit, to rephrase the question a little more 14 specifically. 15 MR. ALEXANDER: Yes, your Honor. 16 Ο. (By Mr. Alexander) Dr. Sioshansi, you 17 would agree a projection of future energy prices does 18 not necessarily entail dispatch analysis for the 19 plants, correct? 20 Α. So of future prices? 21 Ο. Yes, future projection of energy prices 22 does not necessarily entail dispatching and 23 projecting the costs and revenues for these specific 24 plants, correct? 25 Α. I'm not totally clear that I got your

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| question because it sounds like you are describing    |
| two different processes. One is producing a price     |
| forecast; the other is doing a dispatch analysis.     |
| Q. That's correct.                                    |
| A. Now, there are circumstances that you can          |
| produce price forecasts from a dispatch analysis, but |
| there are other methods to produce price forecasts as |
| well.   |
| Q. Correct. So we understand when we are              |
| talking about price forecasts, that does not          |
| necessarily correlate to a dispatch analysis as well, |
| correct?  |
| A. That is correct.                                   |
| Q. Okay. So you would agree that if the               |
| independent energy prices which you discuss in your   |
| first prong are found satisfactory by the Commission, |
| then your first prong would be met, correct?          |
| A. Well, if the prices are used for an                |
| analysis to evaluate the rider in the program, so     |
| just producing prices on their own, I don't think     |
| meets what I've proposed here.                        |
| Q. Okay. My question was if the Commission            |
| finds that the projection of future energy is         |
| satisfactory, you believe your first prong would be   |
| met, correct?   |
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| 1  | MR. STINSON: Objection. Asked and                     |
| 2  | answered.   |
| 3  | EXAMINER PRICE: He hasn't answered it                 |
| 4  | yet. Overruled.                                       |
| 5  | A. So you just said if the prices you                 |
| 6  | described the characteristic of the prices and my     |
| 7  | suggestion here is that there needs to be an          |
| 8  | assessment using a variety of prices. So you have     |
| 9  | only described half of what I have suggested here.    |
| 10 | So if if there were a variety of price scenarios      |
| 11 | and those were used to conduct assessments, then that |
| 12 | would go towards addressing what I have recommended   |
| 13 | here.   |
| 14 | Q. Okay. Let's go to your deposition page             |
| 15 | 39, line 11. Let me know when you are there. It's     |
| 16 | the May deposition, Doctor.                           |
| 17 | A. Yes, I see that.                                   |
| 18 | Q. And are you there?                                 |
| 19 | A. I am.  |
| 20 | Q. And did I ask "Question: Okay. So if               |
| 21 | the independent energy prices are used in a dispatch  |
| 22 | analysis that the Commission finds satisfactory, then |
| 23 | you would believe this first prong is met?            |
| 24 | "Answer: I believe that's one way it                  |
| 25 | could move towards meeting it, yes.                   |

4468 1 "Ouestion: What would be another way to 2 meet the first prong? 3 "Answer I don't know off the top of my 4 head of other sources of price forecasts that could 5 be used to satisfy this criteria." Did I read that 6 correctly? 7 You did, and the first question was Α. 8 consistent with the answer I just gave you which is 9 the prices need to be used in an analysis to assess 10 the rider in the program. I heard your question as just coming up with a set of prices, so maybe I 11 12 misunderstood what you asked me. 13 Ο. Sure. We will let the record speak for 14 itself. Let's look at your second prong at page 8, 15 line 15. Let me know when you are there. 16 EXAMINER PRICE: Where are you at, 17 Trevor? 18 MR. ALEXANDER: Page 8, line 15. That's 19 just where he explained that .... 20 EXAMINER PRICE: I understand. 21 MR. ALEXANDER: It's the bullet point. 22 Α. Okay. And if the Commission were satisfied that 23 Ο. 24 the proposed rider RRS would not have an 25 anti-competitive or market efficiency effect, then

your second prong would be met, correct? 1 2 Α. So if it believed that there would be no 3 market efficiency or competitiveness effect, then, 4 yes, that would satisfy. 5 Ο. And your prongs 3 and 4, so on page 8, are both the cost control issues you address in your 6 7 direct testimony, correct? 8 Yes. Specifically lines 19 on page 8 Α. through line 1 of page 9? These are related to --9 10 these are primarily related to cost control issues that was raised in the original testimony. 11 12 And turning your attention to prong 5 Ο. 13 discussed at -- well, page 9 and line 2 and again at 14 page 14, line 19, you say the Commission should consider the economic impact of changes. Do you see 15 16 that? 17 So the economic impact of imposing higher Α. 18 retail rates on the FE utilities cap to customers? 19 Yes, that's the section. I am getting Q. 20 you in the right area. 21 Α. Do you want me to look on page 9 or page 22 14? 23 Q. It doesn't matter. Page 14. 24 Α. Okay. 25 Q. So you believe that if the Commission

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believes their rider RRS would be a net credit to 1 2 customers, then the -- excuse me, should be a net 3 charge to customers, then the Commission should 4 consider that impact, correct? I think I've 5 butchered that, so I'll rephrase it. You believe that the Commission if it 6 7 believes rider RRS would be a net charge to 8 customers, then it should consider that impact on 9 retail rates, correct? 10 I think that the Commission should Δ Yes. consider the scale and the likelihood of a potential 11 12 charge. 13 Ο. And you would similarly believe that if the Commission believes rider RRS would be a net 14 credit to customers, that it should consider that 15 16 impact on retail rates as well, correct? 17 Yes, again, taking into account the scale Α. 18 and the likelihood of whether a credit would actually materialize. 19 20 Ο. You have reviewed Company Witness 21 Murley's testimony, correct? 22 I have, yes. Α. And you don't specifically recall whether 23 Ο. 24 Company Witness Murley reviewed the retirement impact 25 of the plants, correct?

4471 My recollection is that she conducted a 1 Α. 2 multiplier based analysis to determine -- or I should 3 say estimate the direct, indirect, and I believe 4 induced economic impacts of the plants. I would not -- I -- I would not characterize that as 5 6 assessing the impacts of the plants retiring. 7 Do you believe that Ms. Murley Q. 8 addressed -- strike that. 9 You don't specifically recall whether 10 Witness Murley reviewed the retirement impact of the plants, correct? 11 12 Α. Again, my recollection was that she 13 estimated the direct, indirect, and induced impacts 14 of the plants operating, and that is not in my belief 15 a full assessment of the impacts of the plants 16 retiring. 17 Did she address the plants retiring? Q. 18 Α. I do not believe so. 19 EXAMINER PRICE: What do you believe she 20 failed to do that you believe she should have done? 21 THE WITNESS: So I would characterize her 22 work as at most providing a what you would call a 23 partial equilibrium analysis. Basically she asked 24 the question what do the plants operating produce in 25 terms of direct, indirect, and induced impacts. And

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my takeaway from having read that was the implication being that if those plants were retired, those direct, indirect, and induced impacts would go away. However, there are a number of factors that it fails to address.

So, for instance, if the plants were 6 7 retired, they may be replaced with new generation 8 capacity that produces the same or perhaps even 9 greater direct, indirect, and induced impacts. 10 Moreover, if the plants were retired, depending on 11 their going forward costs and the costs of other 12 generation in Ohio and in PJM, there could be a 13 reduction in customer retail rates that would also 14 have an economic impact. So in my mind, there are 15 lots of other impacts that were not captured from 16 what I recall of her analysis and testimony.

EXAMINER PRICE: Would those impacts also include the effects on the wholesale price if you took out 36 -- 3,200 megawatts generation out of the PJM market and all other things were equal?

A. Of course. So my -- my argument is that if one wants to do an assessment of what the impact of the plants retiring would be, one should do a complete assessment of what happens under the status quo of keeping the plants versus what would happen

when all these long-run effects take place if the 1 2 plants were to retire. 3 So there could be effects on the 4 wholesale market. There could be effects on retail 5 prices. There could be effects on new generation or transmission being built. And all of those could 6 have ancillary, indirect, induced, spillover effects. 7 8 EXAMINER PRICE: And have you performed 9 that analysis? 10 THE WITNESS: I have not, no. Thank you. 11 EXAMINER PRICE: 12 Q. And you are not aware of any witness in 13 this proceeding other than Ms. Murley who has 14 quantified the economic impact of the plants, correct? 15 16 The economic impact of the plants Α. 17 operating? 18 Ο. Correct. 19 I am not aware of anyone else who has, Α. 20 no. 21 Ο. You are not aware of any witness in this 22 proceeding who has quantified the impact of the plants retiring, correct? 23 24 I am not aware of anyone having fully Α. 25 done that analysis, no.

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4474 Let's turn to your prong 6, page 9, line 1 Ο. 2 Are you there? 4. 3 Α. T am. 4 You don't know whether PJM currently Ο. 5 provides reliability benefits in states with 6 regulated generation, correct? 7 Α. I'm not clear on what you mean. Do you 8 mean -- I don't understand your question. 9 Ο. Okay. Do you know whether PJM currently 10 operates in states which also have regulated 11 generation? 12 Α. I believe it does, yes. 13 Ο. Okay. And you don't know whether PJM 14 currently provides reliability benefits in those 15 states that do have regulated generation, correct? 16 So, again, the question is throwing me Α. 17 off a little bit because I don't believe that PJM 18 provides reliability benefits. I believe it's 19 generation, transmission, demand response, assets 20 like that that provide reliability benefits. 21 Ο. Sure. In your prong 6, you were talking 22 about reliability benefits of the plans that are not 23 already captured in the PJM-operated wholesale 24 markets, correct? 25 Α. Yes.

4475 And so what I am trying to drill down on 1 Ο. 2 is what additional benefits you're specifically 3 referring to that are not already captured. So, for 4 example, you can't identify how the performance and 5 supply obligations referenced in this prong differ from the obligations of unregulated generations that 6 7 would be operating in PJM, correct? 8 Α. Can the question be reread? 9 EXAMINER PRICE: Please. 10 (Record read.) So is the question whether regulated and 11 Α. 12 unregulated generation both provide reliability 13 benefits? 14 Yeah. Let's go at this another way. You Q. believe that reliability or regulated generation has 15 16 an obligation to serve load that unregulated 17 generation does not, correct? 18 Α. I believe so. I don't know the details, 19 but I believe that they do have some sort of 20 obligation of that sort. Okay. You can't identify a difference if 21 Ο. 22 the PJM market of the obligations of regulated and 23 unregulated generation, correct? 24 I don't know of any specific differences Α. 25 in their obligations.

4476 Let's turn to your prong 7, page 9, line 1 Ο. 2 7. You are not aware of any intervenor witness who 3 has proposed a lower cost alternative to rider RRS, 4 correct? 5 MR. STINSON: Could I have the question reread, please? 6 7 EXAMINER PRICE: You may. 8 (Record read.) 9 Α. I believe I would disagree with that. Μv 10 understanding is that OCC/NOPEC Joint Witness Wilson has conducted an analysis of rider RRS under some 11 12 alternative price assumptions and has shown that they 13 could -- it could result in a net charge to 14 customers. 15 Q. Okay. 16 So, in essence, he would be saying that Α. 17 the do nothing alternative would be a lower cost alternative to rider RRS. 18 19 Okay. Let's go to your deposition, page Q. 20 85, starting at line 20. 21 Α. Which deposition? 22 The second. The question was: "Are you Q. 23 aware of any intervenor witness who has proposed a 24 lower" --25 Α. Where on line 85?

4477 Page 85, line 20. Let me know when you 1 Q. 2 are there. 3 Α. Okay. 4 Did I ask you "Question: Are you aware Ο. 5 of any intervenor witness who has proposed a lower 6 cost alternative to the proposed PPA? 7 "Answer: I am not aware of a specific 8 one, no." Did I read that correctly? 9 Α. You did. If you read my answer to your 10 previous question on lines 13 through 19, you will see that I gave you the same answer regarding the 11 12 analysis conducted by Witness Wilson. 13 MR. ALEXANDER: Your Honor, move to 14 strike everything after "yes." EXAMINER PRICE: We will grant the motion 15 16 That's a topic for redirect which you can to strike. 17 discuss with your counsel. 18 Now, turning to your factor 8 on Q. 19 competitive solicitations, you are not aware of any 20 intervenor witness who has quantified the savings 21 associated with a competitive solicitation, correct? 22 Α. I am not, no. And at -- turn to page 21, line 4 where 23 Ο. 24 you address auction laddering, and let me know when 25 you are there.

4478 Line 4, you said? 1 Α. 2 Ο. That's correct. 3 Yes, I am at line 4. Α. 4 And you would agree that laddering only Q. 5 stabilizes prices for the period in which the laddering occurs, correct? 6 7 Α. Yes, that would be when it has its 8 primary effect. 9 And you would agree that any benefits of Ο. 10 laddering only apply to nonshopping customers, 11 correct? 12 Α. Yes. Laddering of -- for SSO customers 13 would only apply to SSO customers. 14 And you would also agree that the Q. benefits of laddering would in no way preclude the 15 16 additional benefits of rider RRS, correct? 17 Α. If rider RRS does have benefits, then 18 I -- I can't immediately see how laddering would interfere with that. 19 20 Okay. Let's turn to your factor 9. Q. That 21 factor is contingent --22 Do you want me to go back to page --Α. It doesn't matter. You can go to page 9 23 Ο. 24 if you would like. Are you there? 25 Α. So line 17?

That's correct. 1 Q. 2 Α. Okay. 3 So your factor is contingent on obtaining Q. 4 a list of alternatives pursuant to your factor 7, 5 correct? 9 and 7 would be similar. The only Α. 6 7 difference -- the only potential difference is that 7 8 is focused on a least cost combination, whereas 9 9 presumably would be a least cost combination but may 10 also have additional environmental regulations that 11 need to be met. 12 Ο. And nothing in your supplemental 13 testimony expressly addresses where the companies' 14 proposal complies with the factors identified by the 15 Commission in the AEP Ohio order, correct? 16 No, I don't recall having anything in Α. 17 here that specifically addresses that. 18 Is that a yes, you don't recall having Q. 19 anything? 20 Yes, I don't recall. Α. 21 MR. ALEXANDER: Nothing further, your 22 Honor. Thank you, Doctor. 23 EXAMINER PRICE: Thank you. 24 Mr. McNamee? 25 MR. McNAMEE: No questions.

4480 1 EXAMINER PRICE: Mr. Stinson, redirect? 2 MR. STINSON: If we could have a few 3 minutes, your Honor, it might be a good time for a 4 break. 5 EXAMINER PRICE: We will break until 3:25. 6 7 (Recess taken.) 8 EXAMINER PRICE: Let's go back on the record. Mr. Stinson. 9 10 MR. STINSON: Yes, sir. 11 12 REDIRECT EXAMINATION 13 By Mr. Stinson: Mr. -- I'm sorry, Dr. Sioshansi, do you 14 Q. recall during cross-examination that -- where 15 16 Mr. Alexander asked you questions to the effect 17 whether any witness provided a lower cost alternative 18 to RRS? 19 I do, yes. Α. 20 Q. And I would like to turn your attention 21 to your supplemental deposition page 85 beginning at 22 line 11. Could you read that question and answer, 23 please. 24 Yes. "Question: Are you aware of any Α. 25 lower cost alternatives to the proposed PPA?

| 1  | "Answer: I am not aware of a specific                 |
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| 2  | one, no. However, given the fact that, again, if you  |
| 3  | were to look at OCC and NOPEC," that's a typo,        |
| 4  | "Witness Wilson's analysis of the program and the     |
| 5  | potentially very high charge to customers, that may   |
| 6  | point to the fact that the PPA and the program could  |
| 7  | be a very costly source, a very costly proposition    |
| 8  | for the ratepayers."                                  |
| 9  | Q. Thank you. One other question, and do              |
| 10 | you also recall the questions from Mr. Alexander      |
| 11 | regarding whether any year in which there would be a  |
| 12 | credit under the RRS, whether that would be a         |
| 13 | subsidy?  |
| 14 | A. Yes, I do.   |
| 15 | Q. And if I turn your attention to your               |
| 16 | initial deposition from January, page 44, beginning   |
| 17 | on line 24, carrying over to the next page, could you |
| 18 | read that question and answer, please.                |
| 19 | A. "Question: So in every year in which               |
| 20 | rider in which the rider RRS is a credit, you         |
| 21 | would agree that in those years, customers are not    |
| 22 | subsidizing FES?                                      |
| 23 | "Answer: Again, if that hypothetical                  |
| 24 | situation were to occur and we are focusing           |
| 25 | specifically on the year in which there is a credit,  |
|    |   |

1 there is not a direct subsidy. However, that's not 2 to say that over the 15-year term of the PPA 3 ratepayers would not be subsidizing FES. That's also 4 assuming that those particular price projections do 5 materialize."

Q. Thank you. At what point in time would the Commission be able to determine if there were a subsidy or not over that 15-year period?

9 So that's one of the difficulties in Α. 10 evaluating the PPA and the rider which is that the 11 hypothetical questions all presume that one can look 12 at the program in an ex post fashion, essentially look after the fact and see whether there was a 13 14 credit or a charge. Unfortunately the PUCO can't make a decision on that basis and instead has to make 15 16 a decision in an ex ante fashion.

17 I would also add that regardless of 18 whether the PPA and the rider ends up being a net 19 credit or net charge to customers over its 15-year 20 term, there is an implicit subsidization of risk 21 because the full cost risk of these plants are being 22 transferred from FES to the companies' customers. 23 MR. STINSON: Thank you, Doctor. No 24 further -- no further questions. 25 EXAMINER PRICE: Recross, Mr. Kurtz?

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4483 1 MR. KURTZ: No, your Honor. 2 EXAMINER PRICE: Mr. Mendoza? 3 MR. MENDOZA: No, your Honor. 4 EXAMINER PRICE: Mr. Alexander? 5 MR. ALEXANDER: No, your Honor. Thank 6 you. 7 EXAMINER PRICE: Mr. McNamee? 8 MR. McNAMEE: No, thank you. 9 EXAMINER PRICE: Doctor, you are excused. 10 THE WITNESS: Thank you. 11 EXAMINER PRICE: Mr. Stinson? 12 MR. STINSON: Your Honor, at this point, I would move the admission of OCC/NOPEC Exhibit No. 13 1, No. 2, and No. 3. 14 15 EXAMINER PRICE: Any objection? 16 MR. ALEXANDER: No, your Honor. As amended, no, your Honor. 17 18 EXAMINER PRICE: Hearing no objection, all three exhibits will be admitted. 19 20 (EXHIBITS ADMITTED INTO EVIDENCE.) EXAMINER PRICE: Mr. Wilson, you're next. 21 22 Ms. Willis, call your next witness. 23 MS. WILLIS: Thank you, your Honor. OCC 24 calls to the stand James Wilson. Mr. Wilson. 25 (Witness sworn.)

4484 1 EXAMINER PRICE: Please be seated and 2 state your name and business address for the record. 3 THE WITNESS: James F. Wilson, 4800 4 Hampden, H-A-M-P-D-E-N, Lane, Suite 200, Bethesda, 5 Maryland, 20814. EXAMINER PRICE: Thank you. Please 6 7 proceed, Ms. Willis. 8 MS. WILLIS: Thank you, your Honor. At this time, OCC would ask to mark as Joint Exhibit OCC 9 10 and NOPEC the direct testimony of James F. Wilson as 11 Exhibit No. 4. 12 EXAMINER PRICE: It will be so marked. 13 (EXHIBIT MARKED FOR IDENTIFICATION.) 14 15 JAMES F. WILSON 16 being first duly sworn, as prescribed by law, was 17 examined and testified as follows: 18 DIRECT EXAMINATION 19 By Ms. Willis: 20 Q. Mr. Wilson, do you also have in front of 21 you in addition to your direct testimony your 22 supplemental testimony? 23 Α. Yes, I do. 24 MS. WILLIS: Your Honor, at this time, 25 OCC would ask that the Supplemental Testimony of

4485 James F. Wilson dated May 11, 2015 be marked as OCC 1 2 and NOPEC Joint Exhibit No. 5. 3 EXAMINER PRICE: It will be so marked. 4 (EXHIBIT MARKED FOR IDENTIFICATION.) 5 MS. WILLIS: Now, your Honor, with respect to the confidential version of the direct 6 7 testimony, we would ask that the confidential version 8 which relates to the confidential direct testimony of 9 Mr. James F. Wilson filed December 22, 2014, be 10 marked as Joint Exhibit OCC/NOPEC 4B. Off the 11 record. 12 EXAMINER PRICE: Let's go off the record. 13 (Discussion off the record.) MS. WILLIS: We would ask that the -- the 14 15 confidential direct testimony be marked as -- I'm 16 sorry, Joint Exhibit OCC/NOPEC 6C. 17 EXAMINER PRICE: Confidential, yes. 18 MS. WILLIS: Yes. EXAMINER PRICE: It will be so marked. 19 20 (EXHIBIT MARKED FOR IDENTIFICATION.) 21 Ο. Now, Mr. Wilson, let's start with your 22 direct testimony that's been marked as Exhibit 4 and 23 Exhibit 6C. Was that testimony prepared by you or 24 under your direction and supervision? 25 Α. Yes, it was.

4486 1 And if I were to -- or do you have any Ο. additions, corrections, or deletions to that 2 3 testimony, either version? I had three quite minor errata. 4 Α. Yes. 5 Ο. Okay. If you could identify those for 6 us, please. 7 Α. On page 22, line 3, MMBtu should be MBtu. 8 Ο. And that correction applies to both your direct public and your direct confidential? 9 10 Α. Yes. Thank you. 11 Ο. 12 Α. On page 4, line 9, where it says "holding 13 Mr. Rose's," it should say "holding Mr. Lisowski's and Mr. Rose's." 14 And, again, that correction is made on 15 Ο. 16 both your direct public and your direct confidential? 17 Α. Yes. 18 Thank you. Q. 19 And, finally, on page 67, lines 11, 12, Α. 20 the phrase "over the ESP period" should be deleted. 21 Ο. And, again, this correction is made to 22 both your direct and your confidential version of your direct testimony? 23 24 Α. Yes. 25 Q. Okay. Did you have any further

corrections, additions, or deletions to your 1 2 supplemental testimony? 3 I did, one. Α. 4 Okay. Can you identify those for me. Ο. 5 Α. On page 17, line 9, the word "efficiency" should be followed by a period and end quote. 6 7 No, I think I actually forgot the initial Q. 8 question which was to ask you for purposes of this 9 proceeding, by whom are you employed and in what 10 capacity? I am an independent consultant and doing 11 Α. 12 business as Wilson Energy Economics and I'm -- I am 13 presenting testimony on behalf of OCC and NOPEC in 14 this proceeding. 15 Ο. Thank you. Now, with respect to both 16 your public direct testimony and your confidential 17 direct testimony, if I ask you the questions that are 18 posed there, would your answers be the same today? 19 Yes, with the caveat that if I were to Α. 20 redo my analysis with updated assumptions, I might 21 get different results but, yes. 22 Okay. And with respect, Mr. Wilson, to Ο. your supplemental testimony, if I ask you the 23 24 questions that are posed to you in that supplemental 25 testimony, would your answers be the same?

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4488 1 Α. Yes. MS. WILLIS: Your Honor, at this time, I 2 3 would move for the admission of the Exhibits 4, 5, and 6C and offer Mr. Wilson for cross-examination. 4 EXAMINER PRICE: Thank you. We will 5 defer ruling on the motions for admission until the 6 7 completion of cross-examination. 8 Mr. Mendoza, cross? 9 MR. KUTIK: Your Honor, at this time we would entertain motions to strike before 10 cross-examination begins. 11 12 EXAMINER PRICE: Sure. 13 MR. KUTIK: Your Honor, I have a few 14 motions to strike certain parts of the direct 15 testimony starting with the direct testimony page 16 5 -- excuse me 34. And we would move to strike 17 starting at line 4, the sentence starting with the 18 word "Exhibit," goes all the way to line 6 and ends 19 in the footnote, and we would include the footnote in 20 our motion to strike, footnote 11. 21 We would also move to strike the exhibit 22 that's referred to JFW-10 all for the reason, your 23 Honor, it is hearsay. It is a publication of the 24 INGAA Foundation, not a party of this case, not a 25 witness to this case, and, therefore, it's hearsay.

4489 1 EXAMINER PRICE: Ms. Willis. MS. WILLIS: Yes, your Honor. We believe 2 3 it is not hearsay. It's an exception to hearsay 4 under 803.17. Additionally, it is information that 5 Mr. Wilson uses for purposes of his analysis. And as 6 an expert witness, he is entitled to set forth an 7 opinion and rely upon informations and publications, 8 and this is one of them, so it is perfectly proper testimony and should be not stricken. 9 10 EXAMINER PRICE: Just pretend I can't remember which one is 803.17 and tell me --11 12 MR. KUTIK: Thank you, your Honor. 13 MS. WILLIS: Yes, your Honor, I believe 14 that's publications and the exception that relates to publications and reports of commercially available 15 16 information, I believe. EXAMINER PRICE: Okay. Which would 17 18 pertain to market quotations, tabulations, lists, 19 directories, or other published compilations 20 generally used and relied upon by the public or by 21 persons in a particular occupation. MS. WILLIS: Yes, your Honor. 22 23 EXAMINER PRICE: Can you explain to me 24 how it meets that specific definition? 25 MS. WILLIS: Well, they are publicly

4490 available projections. They are prepared by a --1 2 Mr. Rose's firm for a foundation and submitted to the 3 foundation which I would understand to be a public 4 foundation or a foundation that receives public 5 dollars. And they are a compilation of facts or data 6 that are relied upon for the purposes of carrying out 7 business. 8 EXAMINER PRICE: What is the INGAA Foundation? 9 10 MS. WILLIS: Your Honor, I apologize that I do not have that information available. 11 12 EXAMINER PRICE: I'll ask the witness. 13 What is the INGAA foundation? 14 THE WITNESS: Interstate National Gas Association of America, I believe. 15 16 MR. KUTIK: Your Honor. 17 EXAMINER PRICE: Yes, sir. 18 MR. KUTIK: As you know, the burden with 19 respect to the admissibility of the evidence is upon 20 the party that proffers the evidence. There is no 21 evidence in the record, certainly by Ms. Willis's 22 test -- statements or certainly by the witness in terms of the nature of the foundation. It's not the 23 24 association, it's a foundation, and that that would 25 fall within the -- a readily available, readily

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1 relied upon commercial entity that produces market 2 materials which is really the point of that exception 3 to the hearsay rule.

With respect to the reliance by this witness on that, that would be true, your Honor, counsel may have a point, your Honor, if we were in federal court, but under the state rules, your Honor, as you know, things that the witness relies on and seeks to offer into evidence must be independently admissible.

EXAMINER PRICE: I very much want to 11 12 agree with you on every issue you have raised, 13 Mr. Kutik, because I agree with you on every issue you raised except the issue of ICF prepared these. 14 15 And the fundamental issue about hearsay is you've got 16 no opportunity to cross-examine the witness on the 17 statements being offered out of state and to test his 18 credibility, but this is -- bear with me a minute and 19 you can respond.

But this is an ICF forecast, and you have an ICF witness, and you could call that ICF witness, and he could say we were wrong in 2011 or the assumptions were given to us by somebody else, but you understand what I am getting at?

25

MR. KUTIK: Yes, your Honor. And what if

4492 it was an ICF forecast but it was employed by ICF? 1 2 So we don't know if there has been any analysis done 3 or any revisions or manipulation or treatment of the 4 ICF data. 5 MS. WILLIS: I'm not sure I understood 6 your comment it is employed? 7 MR. KUTIK: Yeah. His own footnote says, 8 quote, "employing the ICF 2011 referenced case." 9 MS. WILLIS: Well, certainly, you would 10 have the ability to cross-examine Mr. Wilson with 11 respect to what he had done with the ICF analysis. 12 MR. KUTIK: The problem is it's not 13 Mr. Wilson who did something with this analysis. It was this foundation. 14 15 EXAMINER PRICE: Mr. Wilson, I have a 16 question for you. Were you reviewing an ICF source 17 document, or were you reviewing a foundation source 18 document? THE WITNESS: This is an INGAA Foundation 19 20 document, but it's reporting a forecast prepared by ICF that I included in my exhibit. 21 22 EXAMINER PRICE: So we have hearsay 23 within hearsay, and that's good enough for me. 24 Motion to strike will be granted. 25 MR. KUTIK: Your Honor, our next motion

1 to strike is on page 42. 2 EXAMINER PRICE: What was the page of 3 that last one? I just want to make sure I write down 4 the last one. 5 MR. KUTIK: 34. 6 EXAMINER PRICE: Thank you. 7 MR. KUTIK: Lines 4 through 6. There's a 8 sentence that begins on that line and ended on 6, footnote 11 and JF -- Exhibit JFW-10. 9 10 Our next motion, your Honor, is on page 42 at line 14, the sentence that begins there and 11 12 ends in the middle of line 15 and then the footnote. 13 It refers to something in reference to U.S. Electric Utilities and IPPs. It's unclear what the source of 14 15 the document is, your Honor. So for that reason, we 16 object, move to strike on the grounds of hearsay. 17 EXAMINER PRICE: What was the reference 18 again? I'm sorry. 19 MR. KUTIK: Sure. It is page 42, line 20 14, sentence that begins there. 21 EXAMINER PRICE: And the footnote. 22 MR. KUTIK: Through line 15, the sentence 23 ends on line 15, and the footnote I believe is 24 footnote 16. 25 EXAMINER PRICE: Yes. Thank you.

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1 Ms. Grady?

| 2  | MS. WILLIS: Your Honor, I would believe               |
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| 3  | that, again, this would fall under 803.17.            |
| 4  | Mr. Kutik's remarks about he was he was not aware     |
| 5  | of some reference, it's unclear to the source of the  |
| 6  | document, then that certainly would be something      |
| 7  | Mr. Kutik could clear up on cross-examination.        |
| 8  | And I do believe that a witness is                    |
| 9  | entitled to give an opinion and rely upon information |
| 10 | in giving that opinion, and this is all Mr. Wilson is |
| 11 | doing. He is relying upon information and data that   |
| 12 | is widely known in the industry and he's presenting   |
| 13 | that that opinion, and it is part of what he is       |
| 14 | relying upon as part of his testimony in presenting   |
| 15 | his testimony to the Commission.                      |
| 16 | MR. KUTIK: Your Honor, what he is                     |
| 17 | reporting is according to "some final analysts," so   |
| 18 | we have a document that's reporting hearsay.          |
| 19 | EXAMINER PRICE: I agree. Motion to                    |
| 20 | strike will be granted.                               |
| 21 | MR. KUTIK: Your Honor, our next motion                |
| 22 | to strike is on page 52. And on page 52, your Honor,  |
| 23 | starting at line 18, that paragraph that ends at      |
| 24 | the sentence that ends at line 20 where he was        |
| 25 | informed by NOPEC counsel. That's hearsay. He lacks   |
|    |   |

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4495 1 personal knowledge. That's an interesting theory 2 that I can tell my witness a whole bunch of things 3 and they can testify to it. It's -- it's 4 inappropriate testimony. 5 EXAMINER PRICE: Ms. Grady? 6 MS. WILLIS: May I have a moment, your 7 Honor? 8 EXAMINER PRICE: You may. Let's go off the record. 9 10 (Discussion off the record.) EXAMINER PRICE: Now we are on the 11 12 record. 13 MS. WILLIS: We can withdraw that 14 testimony lines 18 through 20. 15 EXAMINER PRICE: Thank you. 16 MR. KUTIK: Your Honor, our next motion 17 to strike, and this is the last one on direct 18 testimony is on page 55. And we would move to strike 19 the sentence that begins on line 5 and the testimony 20 continuing through line 11, as well as the two 21 footnotes that are referred to, those being 19 and 22 20. This is a reference to the same NRRI report, 23 your Honor, that was stricken yesterday in 24 Mr. Effron's testimony. 25 EXAMINER PRICE: Ms. Grady, try again.

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| 1  | MS. WILLIS: Your Honor, I believe it is              |
| 2  | something that this witness is relying upon, he is   |
| 3  | familiar with. NRRI is certainly a known entity. It  |
| 4  | is a an organization that regularly does research    |
| 5  | and keeps track of trends as well as information     |
| 6  | on specific to utilities, so I believe it really     |
| 7  | is the type of evidence that is trustworthy and      |
| 8  | really is not the type of evidence that the hearsay  |
| 9  | rule is targeted to.                                 |
| 10 | EXAMINER PRICE: Consistent with our                  |
| 11 | motion yesterday, we will go ahead and grant the     |
| 12 | motion the ruling yesterday, we will go ahead and    |
| 13 | grant the motion to strike.                          |
| 14 | MR. KUTIK: Your Honor, our next motion               |
| 15 | to strike is on or in Mr. Wilson's supplemental      |
| 16 | testimony on line 12 or on page 12. And, your        |
| 17 | Honor, this is the starting on line 9, the           |
| 18 | sentence that begins there and ends on line 12, as   |
| 19 | well as the footnote, footnote No. 4 cites the       |
| 20 | comments of someone else.                            |
| 21 | EXAMINER PRICE: You are asking for                   |
| 22 | beginning of line 9?                                 |
| 23 | MR. KUTIK: No, I'm sorry, the sentence               |
| 24 | that begins on line 9, the sentence that begins "the |
| 25 | term." I'm sorry, it's actually two sentences.       |
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1 Begins on line 9 "the term" and the second sentence 2 ends on line 12. 3 EXAMINER PRICE: Let's take these 4 sentences one at a time. Why can't he testify as to 5 the first sentence? Well, I guess you're right, 6 MR. KUTIK: 7 your Honor, he could. 8 EXAMINER PRICE: Okay. With respect to 9 the second sentence, Ms. Grady? 10 MS. WILLIS: Yes, your Honor, in terms of hearsay, there's a concern with hearsay that it's an 11 unreliable statement. Here we have actually comments 12 13 that are filed in a FERC docket that could be --14 clearly could be checked, that is, it is -- it is --15 the filing is what it is. The comments are what they 16 There is no question that they either state or are. 17 do not state that term. So I don't think this is the 18 type of evidence that the hearsay rule is geared 19 to -- to protect the court against. 20 EXAMINER PRICE: I disagree. The problem 21 still is and always is that Mr. Kutik cannot 22 cross-examine the declarant on the contents of the 23 statement, so we will go ahead and strike that. Just 24 to be clear, we are striking the sentence that begins 25 on line 10 with the words "he explained" and the

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4498 1 accompanying footnote 4. 2 MR. KUTIK: That concludes my motions to 3 strike, your Honor. 4 EXAMINER PRICE: Thank you. 5 Now, Mr. Mendoza, cross? MR. MENDOZA: No questions, your Honor. 6 7 EXAMINER PRICE: Mr. Kurtz, cross? 8 MR. KURTZ: No questions. 9 EXAMINER PRICE: Ms. Bojko, cross? 10 MS. BOJKO: No, thank you, your Honor. EXAMINER PRICE: Are you sure? We will 11 12 give you a minute. 13 MS. BOJKO: I'm sure. 14 MR. KURTZ: Your Honor, can I say this? 15 I thought the company was going to go first, and I 16 may have cross depending on that. 17 EXAMINER PRICE: As you are a party in 18 interest to the company, that's fine. I just want to get the nonsignatory parties so that they are not 19 20 rehabilitating. 21 MR. KURTZ: You caught me offguard. 22 Thank you. 23 EXAMINER PRICE: Mr. Kutik. 24 MR. KUTIK: Thank you, your Honor. 25

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| 2  | CROSS-EXAMINATION                                   |
| 3  | By Mr. Kutik:                                       |
| 4  | Q. Good afternoon, Mr. Wilson.                      |
| 5  | A. Good afternoon.                                  |
| 6  | Q. First, let me ask you to do me a favor if        |
| 7  | you could. I think we can get through your          |
| 8  | examination today with maybe very few questions,    |
| 9  | perhaps none, in confidential session. So it is my  |
| 10 | intent unless I specifically flag I want to go to   |
| 11 | confidential session to try to keep the information |
| 12 | that I ask you about in as public and               |
| 13 | nonconfidential. So if I ask you something that you |
| 14 | think is confidential, will you let me know that?   |
| 15 | A. I'll try to remember that, but you might         |
| 16 | want to hint when you are getting close.            |
| 17 | Q. Okay. Or you can give me the hint when I         |
| 18 | am getting close. All right. Thank you very much.   |
| 19 | Mr. Wilson, we can agree, can we not,               |
| 20 | that OCC is an important client to you?             |
| 21 | A. Yes.   |
| 22 | Q. And they have been your client since 2008        |
| 23 | and 2009?   |
| 24 | A. Yes, not continuously, but yes.                  |
| 25 | Q. Well, you've had a contract, at least one        |
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4500 contract, with OCC every year since then, have you 1 2 not? 3 I am not sure if it's every year but most Α. 4 years, yes. And they would be, that is OCC, would be 5 Ο. among your top five clients? 6 7 MS. WILLIS: Objection. 8 EXAMINER PRICE: Grounds? 9 MS. WILLIS: Relevance. 10 EXAMINER PRICE: Overruled. 11 I'm not sure but possibly. Α. 12 Q. All right. And it would be as much as 13 perhaps 35 percent of your billings? 14 Α. The 35 percent number that I gave on No. deposition referred to broader work with PJM consumer 15 16 advocates inclusively. 17 All right. So that 35 percent number Q. 18 would include OCC or organizations that OCC is a member of that you do work for? 19 20 No. It would include other load Α. 21 interests in the PJM's space. So consumer advocates, 22 industrial customers, public power, the states sometimes participate. 23 24 Do you have your deposition, Mr. Wilson? Ο. 25 Α. I do.

4501 1 MR. KUTIK: May I approach the Bench? 2 EXAMINER PRICE: You may. 3 MS. WILLIS: Can I inquire what was 4 handed out? 5 MR. KUTIK: His deposition from February. MS. WILLIS: February? 6 7 MR. KUTIK: Yes. 8 MS. WILLIS: And can you give me a moment 9 to find that, please? 10 Thank you. 11 (By Mr. Kutik) Mr. Wilson, I took your Ο. 12 deposition two times in this case, correct? 13 Α. Correct. And one time that I took your deposition 14 Q. was on February 10, 2015, correct? 15 16 Α. That's correct. 17 And you took an oath to tell the truth in Q. that deposition? 18 19 Α. I did. 20 And you had an opportunity to review the Q. 21 deposition and make corrections, did you not? 22 Α. Yes. And you actually took advantage of that 23 Ο. 24 opportunity, did you not? 25 Α. Yes.

4502 1 Let me now refer you to page 106. Ο. 2 Specifically, Mr. Wilson, I want to refer you to line 3 19. And did I ask you the following questions and 4 did you give the following answers: "Question: How 5 much of your work in the last two years has been for OCC or groups that have included OCC? 6 7 "Answer: How much? 8 "Ouestion: Yeah. 9 "Answer: I don't know. I would have to 10 calculate it, but it might be 25, 30, 35 percent, 11 something like that." Did I read that correctly? 12 Α. Yes. 13 MS. WILLIS: Objection. EXAMINER PRICE: Grounds? 14 MS. WILLIS: It is not inconsistent, it's 15 16 improper impeachment. 17 MR. KUTIK: He said the 35 percent figure 18 did not include or included other things and other 19 groups. 20 EXAMINER PRICE: The -- we will match it 21 up with the transcript and it will reveal what it 22 says. 23 Q. Now, would it be correct to say that 24 since 2008, you have submitted testimony on behalf of 25 OCC or groups that have included OCC about 10 times?

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| 1  | A. I don't know.                                      |
| 2  | Q. All right. Well, let's refer to your               |
| 3  | testimony and let's refer to your attachment JW-1.    |
| 4  | MS. WILLIS: Is that the direct                        |
| 5  | testimony, Mr. Kutik?                                 |
| 6  | MR. KUTIK: Yes, yes.                                  |
| 7  | Q. And specifically, could you please turn            |
| 8  | to page 5 of that where there's a heading Testimony   |
| 9  | and Affidavits. Okay? So going down the list, the     |
| 10 | first one we come to where you worked on behalf of    |
| 11 | OCC was in the matter of the Duke Energy Ohio In      |
| 12 | the Matter of the Application of Duke Energy Ohio for |
| 13 | Authority to Establish a Standard Service Offer in    |
| 14 | the Form of an Electric Security Plan, and that's a   |
| 15 | PUCO Case No. 14-841-EL-SSO, correct?                 |
| 16 | A. Yes.   |
| 17 | Q. The second one would be in Ohio Power's            |
| 18 | ESP, the next one on the list, Case No.               |
| 19 | 13-2385-EL-SSO, correct?                              |
| 20 | A. Yes. You skipped the first one on the              |
| 21 | list which was for a group of consumer advocates that |
| 22 | OCC has at times participated in.                     |
| 23 | Q. All right.   |
| 24 | A. I just want to note.                               |
| 25 | Q. All right. The next one on the list in             |
|    |   |

4504 PJM interconnection FERC docket ER 14-504, that was 1 2 for the Joint Consumer Advocates and public interest 3 organizations, that included OCC, did it not? 4 Α. I don't recall. 5 MR. KUTIK: May I approach, your Honor? 6 EXAMINER PRICE: You may. 7 MR. KUTIK: Your Honor, I do not intend 8 to mark this exhibit. I am doing it purely to refresh the witness's recollection. 9 10 EXAMINER PRICE: Thank you. Mr. Wilson, I have handed you a document 11 Ο. 12 from that case that we just listed out, correct? 13 Α. Yes. 14 And do you recognize this as your Q. affidavit? 15 16 Α. Yes. 17 Q. And on the second page, does it list who 18 you represent, or I should say on page 2, does it say 19 who you represent? 20 Α. Not represent but prepared at the request 21 of. 22 Q. Fair enough. And does that list include OCC?23 24 Α. It does. All right. The next one I would like to 25 Q.

4505 talk to you about is the last one on page 5 of your 1 2 attachment and that is the Dayton Power and Light 3 Company approval for a market rate offer, and that 4 was Case 12-426-EL-SSO, correct? 5 Α. Yes. And that was on behalf of OCC, correct? 6 Ο. 7 Α. Yes. 8 The next one I want to talk to you about Ο. 9 is on page 6, and that -- and the second line or the 10 second item is with respect to Ohio Edison, et al., 11 Authority for Standard Service Offer in the Form of an Electric Security Plan, Case No. 12-1230-EL-SSO. 12 13 That was for OCC as well, correct? 14 Α. Correct. 15 Ο. Now I would like you to go down a few, 16 and there is a PJM interconnection LLC FERC docket number ER 11-2288. Do you see that? 17 18 Α. Yes. 19 And you made comments on behalf of the Ο. 20 Joint Consumer Advocates, do you see that? 21 Α. Yes. 22 And did that include OCC? Q. 23 Α. I don't know. 24 MR. KUTIK: May I approach, your Honor? 25 EXAMINER PRICE: You may.

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| 1  | Q. Mr. Wilson, I would like to hand you a             |
| 2  | document that appears to be from that case. Do you    |
| 3  | recognize it?   |
| 4  | A. Yes.   |
| 5  | Q. And this is your affidavit, is it not?             |
| 6  | A. Yes.   |
| 7  | Q. I would like to have you turn to the               |
| 8  | second page or the page that's numbered 2,            |
| 9  | particularly paragraph 5.                             |
| 10 | A. Yes.   |
| 11 | Q. Lists who you are making comments on               |
| 12 | behalf of, correct?                                   |
| 13 | A. Yes.   |
| 14 | Q. And that includes OCC, does it not?                |
| 15 | A. Yes.   |
| 16 | Q. The next one I want to talk to you about           |
| 17 | is three from the bottom on page 6 of your attachment |
| 18 | JFW-1, and again, that's in the Application of Ohio   |
| 19 | Edison Company, et al. for Market Rate Offer and      |
| 20 | that's Case No. 09-906-EL-SSO, and you appeared on    |
| 21 | behalf of the OCC, correct?                           |
| 22 | A. Correct.   |
| 23 | Q. I would like to have you turn to page 7.           |
| 24 | And the second item that's listed there, Maryland     |
| 25 | Public Service Commission, et al. versus PJM          |
|    |   |

4507 Interconnection, LLC, FERC docket number EL 0867000, 1 2 that was an affidavit on behalf of RPM buyers. Did 3 that include -- that included OCC, did it not? 4 Α. I don't recall, but it may have, yes. 5 MR. KUTIK: All right. May I approach, 6 your Honor? 7 EXAMINER PRICE: You may. 8 Does that document appear to be from that Q. 9 case? 10 Α. Yes. And does this document indicate who the 11 Ο. 12 RPM buyers are? 13 Α. Yes. And does that -- does that include OCC? 14 Ο. 15 Α. Yes. 16 And lastly, I want to refer you to the Q. 17 next item on Page 7 of Attachment JFW-1, RPM 18 Connection LLC, FERC docket number ER 08516. Do you see that? 19 20 Α. Yes. 21 Ο. And that was on behalf also of RPM 22 buyers? 23 Α. Yes. 24 And did that include -- and that included Ο. 25 OCC as well, did it not?

4508 I don't know. 1 Α. 2 MR. KUTIK: May I approach? 3 EXAMINER PRICE: You may. 4 Mr. Wilson, I have handed you a document Q. from that case. 5 Α. 6 Yes. 7 Ο. And does that appear to be a document you 8 played a part in submitting? 9 This is the pro test. But my affidavit Α. 10 appears to be attached, yes. 11 And does this indicate who comprises the Ο. 12 RPM buyers, correct? 13 Α. Footnote 1. And footnote 1 indicates that OCC is a 14 Ο. part of that, correct? 15 16 Α. Yes. 17 So you would agree with me, would you Q. not, that we've identified about 10 cases where 18 19 you've provided information on behalf of OCC or 20 groups that included OCC since 2008, you would agree 21 with that, correct? 22 Okay, yes. There may be more. I haven't Α. checked. 23 24 Thank you. Now, would it be fair to say Ο. 25 that by the time you were retained in this case, you

4509 had already provided OCC your testimony in the -- in 1 2 AEP and Duke's ESP cases? 3 I believe that's correct. Α. 4 EXAMINER PRICE: Let's go off the record 5 real fast. (Discussion off the record.) 6 7 EXAMINER PRICE: Let's go back on the 8 record. 9 MR. KUTIK: May I have the last question and answer read, please? 10 11 EXAMINER PRICE: Yes. 12 (Record read.) 13 Α. Yeah, I think you are referring to the 2014 cases. 14 15 Ο. Yes. 16 Α. Yes. 17 Q. And would it be fair to say that your 18 testimony in those cases dealt with, among other 19 things, what we might call PPA-related riders? 20 Α. Yes. 21 Ο. And would it be also true to say that 22 some part of your testimony in those cases has been replicated in your testimony in this case? 23 24 Α. Yes. MR. KUTIK: May I approach, your Honor? 25

EXAMINER PRICE: You may. 1 2 MR. KUTIK: We would ask to have marked 3 for identification as a Company Exhibit 56 the public 4 version of the direct testimony of James F. Wilson 5 in -- in the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service 6 7 Offer Pursuant to Section 4928.143, Revised Code, in 8 the form of an Electric Security Plan, Case No. 9 13-2385-EL-SSO. 10 EXAMINER PRICE: It will be so marked. 11 (EXHIBIT MARKED FOR IDENTIFICATION.) 12 MR. KUTIK: And we would ask that we have 13 marked for identification as Company Exhibit 57 the 14 public version of the direct testimony of James F. 15 Wilson in -- in the Matter of the Application of Duke 16 Energy Ohio for Authority to Establish a Standard 17 Service Offer Pursuant to Section 4928.143, Revised 18 Code, in the Form of an Electric Security Plan Accounting Modifications and Tariffs for Generation 19 20 Service, Case No. 14-841-EL-SSO. 21 EXAMINER PRICE: It will be so marked. 22 (EXHIBIT MARKED FOR IDENTIFICATION.) 23 Ο. (By Mr. Kutik) Mr. Wilson, are those that 24 I have just given you your testimonies, correct, in 25 those cases?

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| 1  | A. Yes.   |
| 2  | Q. Now, OCC put no limitations for your work          |
| 3  | on this case, correct?                                |
| 4  | A. Correct, budget limitations, but I mean,           |
| 5  | there was there was a scope worked out.               |
| 6  | Q. And that was a matter of negotiation               |
| 7  | between you and your clients in this case?            |
| 8  | A. I am not sure negotiation is the right             |
| 9  | word, but they ask me about a case, they tell me what |
| 10 | their concern is, they ask me if I could testify      |
| 11 | about this, could I evaluate and testify to this,     |
| 12 | this, and this and we work out a scope.               |
| 13 | Q. Okay.  |
| 14 | MR. KUTIK: May I approach, your Honor?                |
| 15 | EXAMINER PRICE: You may.                              |
| 16 | MR. KUTIK: Your Honor, at this time, we               |
| 17 | would like to have marked for identification as       |
| 18 | Company Exhibit 57                                    |
| 19 | EXAMINER PRICE: 58.                                   |
| 20 | MR. KUTIK: Excuse me, 58, a document                  |
| 21 | indicating indicated as Contract 1516 Wilson          |
| 22 | Energy Economics, Contract For Professional Services. |
| 23 | EXAMINER PRICE: It will be so marked.                 |
| 24 | (EXHIBIT MARKED FOR IDENTIFICATION.)                  |
| 25 | Q. Mr. Wilson, do you recognize that                  |
|    |   |

4512 document? 1 2 Α. Yes. 3 And that's your contract in this case? Q. 4 Yeah -- yes, this seems to be specific to Α. 5 this case. And this -- you agreed to do the work in 6 Ο. 7 this case for an amount not to exceed \$30,000? 8 Yes. That's the limit. I am trying to Α. recall whether I had already worked a little bit on 9 10 this case under a different contract before that or I don't think so, but.... 11 not. 12 Q. We will get to that in a minute. 13 Α. Okay. 14 And would you agree that the \$30,000 Q. figure at least you thought at the time was a 15 16 sufficient amount for you to do the work that you 17 needed to do for this case? 18 I think that's right, yes. Α. 19 And this work -- this did not limit you Q. 20 in any way in doing the work you thought was 21 necessary to do? 22 Α. I thought I could do a good job for this 23 budget. Necessary, I didn't really have a notion of 24 necessary. 25 Q. Okay. So let me now --

4513 1 MR. KUTIK: Your Honor, may I approach? 2 EXAMINER PRICE: You may. 3 MR. KUTIK: Your Honor, we would like to 4 have marked as Company Exhibit 59, a multi-page document which starts with a letter from Wilson 5 Energy Economics dated October 30, 2014. 6 7 EXAMINER PRICE: It will be so marked. 8 (EXHIBIT MARKED FOR IDENTIFICATION.) 9 Ο. (By Mr. Kutik) Now, would it be correct 10 to say, Mr. Wilson, that these represent some of the invoices that you sent to OCC? 11 12 Α. Yes. 13 Q. And these are several invoices, are they 14 not? 15 Α. Yes. 16 And this appears to be a recitation of Ο. 17 work that you did at least in terms of detail in the 18 months of October, November, and December, correct? 19 Α. Yes. 20 Ο. And would it be fair to say that you did 21 work after this primarily relating to your 22 supplemental testimony, sitting for a deposition and I assume preparing for your testimony today? 23 24 Α. Yes. 25 Q. If we -- if we look at the first invoice,

4514 1 that was an invoice that was for another case, 2 correct, or under a contract that started for another 3 case? 4 Well, the contract was somewhat open Α. 5 ended. I believe this contract was for work on PUCO 6 issues. I think at the time that contract was put in 7 place which was probably usually early summer on 8 OCC's contract cycle, I think they had anticipated 9 some of the cases I would be working on. 10 Ο. So this covered several cases, not just 11 one? 12 Yes, multiple. Α. 13 0. Okay. Now, if we look at the invoices, 14 would it be fair to say that you spent three days or 15 more accurately three hours in October concluding 16 with the last day of the month? 17 Α. I think you mean to ask about the FE 18 case? 19 Yes. Q. 20 Α. Yes. 21 Ο. Thank you. And would it be fair to say 22 then that you continued to work on this case on November 3? 23 24 I'm missing the -- Oh, there it is, okay. Α. 25 Yes, it appears I spent two hours on November 3.

4515 1 All right. So as of November 3, you had Ο. 2 worked five hours on this case, correct? 3 Three hours in October, two hours on that Α. 4 dav. That would appear to be correct. 5 Ο. And at the end of that time, you had 6 organized your thoughts on this case, correct? 7 After five hours, that might be a little Α. 8 overreaching to say I had organized my thoughts on I don't know. 9 the case. 10 All right. Well, doesn't this line item Ο. on November 3 say "Review FE's testimony, organize 11 12 thoughts on case"? 13 Α. I was working on organizing my thoughts on the case, yes. I didn't say I completed it on 14 15 that day. 16 All right. And would it be fair to say Ο. 17 that you began drafting your testimony on December 3 which we see in the third and last invoice in this 18 19 group on the last page of the exhibit? 20 Α. Apparently so, yes. 21 Ο. Now, before you began drafting your 22 testimony, one of the things that you did was that you evaluated price forecasts, correct, specifically 23 24 on November 24, November 25, and November 26? 25 Α. Yes.

4516 And it also indicates that you reviewed 1 Ο. 2 case materials on October 30 and FE testimony on 3 November 3, correct? 4 I did those things, yes. Α. 5 Ο. All right. And would it be fair to say that none of the other descriptions indicates a 6 7 review of case materials or testimony; fair to say? 8 Well, the line items don't mention that Α. but, of course, I was reviewing the FE testimony 9 10 continuously through my effort. MR. KUTIK: Well, your Honor, I would ask 11 12 that everything starting with the words "but, of 13 course," be stricken. 14 EXAMINER PRICE: We will grant the motion 15 to strike. Mr. Wilson, please listen carefully to 16 counsel's question. Answer that question and only 17 that question. If you feel there is additional 18 context or other information useful to the Bench, 19 Ms. Grady -- Ms. Willis can ask you that question on 20 redirect. 21 MS. WILLIS: Thank you, your Honor. Your 22 Honor, I might inquire. I think the other day there 23 was a -- a gimme or a do-over or whatever you might 24 want to call it, mulligan, where the witness would be 25 allowed to explain, so I would hold that in abeyance

1 and at a future point he may. MR. KUTIK: 2 It's a little late in the 3 week and the day for mulligans. 4 EXAMINER PRICE: The mulligan is highly 5 discretionary on the Bench's part and also relates to the experience of the witness, and Mr. Wilson has 6 7 appeared before me several times now and he knows the 8 drill. 9 MS. WILLIS: Thank you, your Honor. 10 Q. (By Mr. Kutik) Mr. Wilson, you reviewed the term sheet between the companies and FES? 11 12 Α. I believe I did, yes. 13 Ο. And you did not attempt to review the 14 profitability of any FES plants, correct? No, I didn't. 15 Α. 16 And that would include the plants Ο. 17 discussed in this case, correct? 18 Α. Yes. 19 Now, I wanted to talk to you a little bit Q. 20 about your views on rider RRS and what you understand 21 about the application. Now, you understand that the 22 companies do not intend to offer the output or use 23 the output that they might receive through the 24 proposed transaction to serve SSO customers, correct? 25 Α. Yes, that's my understanding.

4518 1 Ο. And the output will also not be used to 2 provide services directly to shopping customers, 3 correct? 4 Well, we don't know that the output won't Α. 5 be used that way, but FES doesn't intend to sell it 6 that way, yes. 7 Ο. And there's nothing in rider RRS that 8 prevents customers from shopping; isn't that correct? 9 Α. Yes. 10 Q. Now, regarding how the rider works, if capacity prices are higher, customers will receive a 11 12 more positive value in terms of what rider RRS will 13 actually be, correct? 14 If capacity prices are higher and you Α. 15 hold everything else constant which, of course, is 16 not what happens, everything adjusts, but, yes. 17 Now, you would agree with me, would you Ο. 18 not, that PJM capacity prices have been fairly volatile? 19 20 They haven't been all that volatile in Α. 21 western PJM that's relevant to this case. They've 22 been -- we've not got what -- another based residual 23 auction with another price within the range. It's 24 been volatile in some of the zones, but in western 25 PJM, not so volatile really.

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| 1  | MR. KUTIK: May I approach, your Honor?                |
| 2  | EXAMINER PRICE: You may.                              |
| 3  | Q. Mr. Wilson, I would like to hand you a             |
| 4  | deposition that was taken of you in the Duke ESP Case |
| 5  | 14-81-EL-SSO on October 6, 2014. Mr. Wilson, do you   |
| 6  | recall being deposed in the Duke ESP?                 |
| 7  | A. I wouldn't say I recall the day, but yes,          |
| 8  | that did occur.                                       |
| 9  | Q. I am not going to hold you to the date,            |
| 10 | but you recall having your deposition taken, do you   |
| 11 | not?  |
| 12 | A. Yes, that did occur.                               |
| 13 | Q. And this appears to be a transcript of             |
| 14 | that deposition?                                      |
| 15 | A. Yes.   |
| 16 | Q. I would like to refer you and by the               |
| 17 | way, in that deposition you took an oath to tell the  |
| 18 | truth; did you not?                                   |
| 19 | A. I am sure I did.                                   |
| 20 | Q. I am sure you did. Now, let's go to page           |
| 21 | 51, please. Were you not asked the following          |
| 22 | question and did you not give the following answer.   |
| 23 | "Question: Do you believe, Mr. Wilson, that           |
| 24 | wholesale prices for capacity have been volatile over |
| 25 | the last five years?                                  |
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| 1  | "Answer: Well, typically we use volatile             |
| 2  | to refer to very short-term prices and capacity      |
| 3  | prices established on an annual basis, but because   |
| 4  | for capacity we only have prices on an annual basis, |
| 5  | we compare price one year to the next year to the    |
| 6  | next year. And on that basis, PJM capacity prices    |
| 7  | have been fairly volatile, yes." That was your       |
| 8  | testimony in the Duke ESP deposition; was it not?    |
| 9  | A. Yes. And there I did not limit it to              |
| 10 | western PJM and the time range was a specific        |
| 11 | five-year period.                                    |
| 12 | Q. Nor was my question limited. Now, the             |
| 13 | PJM market is an uncertain time or has been in an    |
| 14 | uncertain time within the last year or so, do you    |
| 15 | agree?   |
| 16 | A. Try that again, please.                           |
| 17 | Q. Sure. The PJM market has been in                  |
| 18 | uncertain times within the last year or so?          |
| 19 | A. That's kind of a very broad I mean,               |
| 20 | the times are always uncertain, yes.                 |
| 21 | Q. All right. And wholesale energy prices            |
| 22 | have also had periods of volatility over the last    |
| 23 | five years, correct?                                 |
| 24 | A. Yes.  |
| 25 | Q. And volatile energy prices can be driven          |
|    |  |

4521 1 by unknown weather variations? 2 Α. Unknown weather variations. By weather 3 variations, yes. 4 Okay. And extreme weather can have more Q. of an impact on energy prices than moderate weather. 5 Α. 6 Yes. 7 Q. You would also agree, would you not, that 8 less fuel diversity would result in electric prices tending to be reflective of that fuel? 9 10 Α. Could you ask that again, please? Sure. Less fuel diversity would result 11 Ο. 12 in electric prices tending to be reflective of that 13 fuel? 14 I don't think that question makes sense Α. 15 actually. 16 All right. May I approach, your Honor? Q. 17 EXAMINER PRICE: You may. 18 MR. KUTIK: Actually, your Honor, I 19 believe I will just have the witness refer to his 20 deposition testimony he has before him in the Duke 21 ESP, particularly page -- excuse me, page 83. 22 Mr. Wilson, are you there? Q. 23 Α. Yes. 24 And let me ask you, did you give the Ο. 25 following testimony by answering the following

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| 1  | question with the following answer, starting on line  |
| 2  | 11: "Question: And is there a consequence in terms    |
| 3  | of prices if the fuel resource is particularly        |
| 4  | dependent on one type of fuel?                        |
| 5  | "Answer: If the fuel resource is                      |
| 6  | particularly dependent on one type of fuel, then      |
| 7  | electric prices would tend to be reflective of that   |
| 8  | fuel, especially if it's the marginal fuel, so less   |
| 9  | diversity would result in a system pattern a          |
| 10 | system price pattern be more reflective of one fuel   |
| 11 | and potentially more volatile." Did I read that       |
| 12 | correctly?  |
| 13 | A. Not quite. You put fuel in line 14 where           |
| 14 | it actually wasn't.                                   |
| 15 | Q. All right. Other than that?                        |
| 16 | A. Perhaps.   |
| 17 | Q. Okay. Should I read it again to you,               |
| 18 | sir?  |
| 19 | A. That's fine.                                       |
| 20 | Q. Would you agree with me that coal is               |
| 21 | generally a more stable priced fuel than natural gas? |
| 22 | A. Yes, generally so.                                 |
| 23 | Q. And gas as a driver of electric prices             |
| 24 | could potentially make energy praises more volatile.  |
| 25 | A. Potentially so some day.                           |
|    |   |

4523 1 Okay. And a financial -- and you would Ο. 2 also agree that a financial hedge can potentially 3 provide some rate stability for retail customers? 4 Α. Yes. 5 Ο. Now, I want to ask you a little bit about Ohio. Ohio's regulatory scheme is somewhat unique, 6 7 is it not? 8 Α. Every state's regulatory scheme is 9 unique, yes. 10 And no other state provides for an ESP, Q. correct? 11 12 Α. I don't know. 13 Q. Okay. Well, let me refer you to your 14 deposition, sir. Let me refer you to page 115. 15 MS. WILLIS: Which deposition would this 16 be? 17 This is the deposition he has MR. KUTIK: 18 before him in this case February 10, 2015. 19 MS. WILLIS: Thank you. 20 Q. And, sir, starting on page 115 starting 21 at line 19, did I ask you the following questions and 22 did you not give the following answers: "Question: Would you agree with me that Ohio's regulatory scheme 23 24 is unique? 25 "Answer: I think they're all unique.

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| 1  | "Question: Well, for example, although                |
| 2  | they're all although other retail choice states       |
| 3  | may provide for a utility procuring service of last   |
| 4  | resort for default service, would it be fair to say   |
| 5  | that no other state has an option to provide that     |
| 6  | service for something called Electric Security Plan?  |
| 7  | "Answer: I'm not aware of any other                   |
| 8  | state that uses that particular terminology,          |
| 9  | correct."   |
| 10 | MS. WILLIS: Objection.                                |
| 11 | Q. Was that your testimony, sir?                      |
| 12 | MS. WILLIS: I'm sorry.                                |
| 13 | A. Yes.   |
| 14 | EXAMINER PRICE: Miss Grady, grounds?                  |
| 15 | MS. WILLIS: Your Honor, he is asking a                |
| 16 | different question all together. You know, if you     |
| 17 | want to ask him the direct question, ask him a direct |
| 18 | question. Don't go to the deposition. That is         |
| 19 | improper use of impeachment. He is asking him a       |
| 20 | different question than he asked him today on the     |
| 21 | stand.  |
| 22 | MR. KUTIK: I asked him if any of the                  |
| 23 | state uses an Electric Security Plan, he said he      |
| 24 | didn't know.  |
| 25 | MS. WILLIS: That's not the question                   |
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4525 1 that's posed in the deposition, Mr. Kutik. 2 THE WITNESS: Is there a question 3 outstanding? EXAMINER PRICE: No. I'm mulling it 4 5 over. We are not going to bog ourselves down to this. We will match it up, the transcript, with the 6 7 deposition and if it proves improper impeachment, we 8 will disregard it. 9 MS. WILLIS: Thank you, your Honor. 10 Q. (By Mr. Kutik) Now, you are aware, are you not, that the electric security -- excuse me, the 11 12 ESP statute provides what can be included in an ESP, 13 correct? 14 Α. Yes. An ESP can include cost tracker riders, 15 Ο. 16 correct? 17 That's my understanding. Α. 18 Q. It also provides for single issue 19 ratemaking? 20 Α. I don't know, but I am willing to accept 21 this. 22 You don't know if the companies already Q. have cost trackers; is that correct? 23 24 I expect that they do. Α. 25 Q. But you don't know?

4526 I think some of those elements -- some of 1 Α. 2 the other elements of the ESV are or could be 3 considered cost trackers. I don't think you used 4 that term here, but I do think you have some, yes. 5 Ο. And you are aware with regard to riders or cost recovery riders, there is an audit process? 6 7 Α. Yes. 8 And there is an audit process proposed Ο. for rider RRS, correct? 9 10 Α. Yes. Under rider RRS, there is a risk of 11 Ο. 12 nonrecovery for the companies; is that correct? 13 Α. Yes. 14 And you believe that the risk of Q. nonrecovery is not much of an incentive for the 15 16 companies to manage the cost of their plants? 17 Α. Yes. 18 And you are aware from time to time that Ο. 19 with regard to cost recovery riders, there might be 20 some proceedings before the PUCO to review the 21 findings of audits. 22 Α. Yes. 23 Ο. And you have never been part of such a 24 proceeding, correct? 25 Α. Before the PUCO, no.

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| 1  | Q. Okay. You don't know whether OCC has               |
| 2  | ever been part of such proceedings, correct?          |
| 3  | A. No.  |
| 4  | Q. You also don't believe that for                    |
| 5  | vertically integrated utilities, traditional cost of  |
| 6  | service regulation excuse me, you believe that for    |
| 7  | vertically integrated utilities, traditional cost of  |
| 8  | service regulation provides only weak incentives to   |
| 9  | minimize costs?                                       |
| 10 | A. Correct.   |
| 11 | Q. Now, you are not an expert on the Ohio             |
| 12 | retail market, correct?                               |
| 13 | A. Correct.   |
| 14 | Q. And you've not generally reviewed the              |
| 15 | products or terms offered by CRES providers in Ohio,  |
| 16 | correct?  |
| 17 | A. Correct.   |
| 18 | Q. And you've done no study of retail                 |
| 19 | contracts in Ohio, correct?                           |
| 20 | A. Correct.   |
| 21 | Q. And you are not aware of any contract              |
| 22 | offered for customers that is a fixed priced contract |
| 23 | for a greater for a term greater than three years,    |
| 24 | correct?  |
| 25 | A. Correct.   |
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4528 And you are not specifically aware of any 1 Ο. 2 specific terms of any CRES contract, correct? 3 Well, I've seen some of the details of Α. 4 the NOPEC contract if you consider that. 5 Q. Okay. I've seen that. 6 Α. 7 Other than that, have you seen it? Ο. 8 Α. Not that I recall. 9 Ο. Now, you are aware also that a 10 nonshopping customer may experience rather large price changes from one ESP to another, correct? 11 12 Α. Potentially, yes. 13 Ο. And you are also aware that a shopping 14 customer may experience changes from one contract to another? 15 16 Α. Yes. 17 Now, you also believe that there is an Q. 18 Ohio statute that deals with the issue of corporate 19 separation between regulated affiliates and what we 20 will call those state unregulated affiliates? 21 Α. Correct. 22 Q. Correct? 23 Α. Yes, that was suggested on my deposition, 24 and I agreed to it. 25 Q. And you haven't reviewed that statute?

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| 1  | A. No, I haven't.                                    |
| 2  | Q. But you do understand, have an                    |
| 3  | understanding of the term corporate separation plan? |
| 4  | A. Yes.  |
| 5  | Q. You haven't read the company's plan               |
| 6  | though, have you?                                    |
| 7  | A. No.   |
| 8  | Q. You are aware there is something called           |
| 9  | FirstEnergy Service Company?                         |
| 10 | A. Yes.  |
| 11 | Q. And you believe that that may have                |
| 12 | something to do with may have subs or                |
| 13 | subsidiaries that own generations, correct?          |
| 14 | A. Yes.  |
| 15 | Q. And you don't have any other                      |
| 16 | understanding of what FirstEnergy Service Company    |
| 17 | does, correct?                                       |
| 18 | A. Yes.  |
| 19 | Q. You are not familiar with a department or         |
| 20 | a unit within FirstEnergy Service Company called the |
| 21 | regulated generation department?                     |
| 22 | A. I think I may have read about it, yes,            |
| 23 | actually.  |
| 24 | Q. All right. And did can we take it                 |
| 25 | then you read about it after your deposition?        |
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1 It may be discussed in some of the Α. 2 testimony that I reviewed. 3 All right. Let's go to your deposition, Q. 4 sir, the February 10 deposition, page 70. Are you there? 5 Yes. 6 Α. 7 Ο. And did I ask you the following question 8 and did you not give the following answer starting at 9 line 1 on page 70, "Question: Have you ever heard of 10 a department or a unit within the FirstEnergy Service Company called the regulated generation department or 11 12 unit? 13 "Answer: I am not familiar with that, 14 That was your deposition testimony, was it not? no." 15 Α. Yes. 16 MS. WILLIS: Objection. 17 EXAMINER PRICE: Grounds? 18 MS. WILLIS: Your Honor, this is --19 again, this is inappropriate impeachment. Mr. Wilson 20 indicated that he may have reviewed testimony with 21 that information in it. That is not inconsistent 22 with the statement in the deposition. MR. KUTIK: I specifically asked him 23 24 whether he knew about it after his deposition. 25 MS. WILLIS: And he did not, and if you

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4531 look at his response, he did not say. He said he may 1 2 have reviewed testimony. He did not indicate that 3 was before his deposition was taken, Mr. Kutik. 4 MR. KUTIK: He said he wasn't familiar 5 with it at the time of his deposition, your Honor. 6 EXAMINER PRICE: I agree. Overruled. 7 Now, you don't know whether there are any Q. 8 affiliates of the companies that operate generation in what we call nonretail choice states, correct? 9 10 Α. I think there are actually. All right. Well, did you know that at 11 Ο. 12 the time -- isn't it true you didn't know that at the 13 time of your deposition? 14 Α. I was unsure at that time, yes. 15 Q. Okay. Now, you've read the testimony 16 of Mr. Ruberto? 17 Α. Yes. 18 And you understand then what Mr. Ruberto Q. does? 19 20 I don't recall. Α. 21 Ο. All right. And would it be fair to say 22 you have done no detailed review of how he does his 23 job? 24 Α. Correct. 25 Q. You are generally familiar, are you not,

4532 with the rules of the Federal Energy Regulatory 1 2 Commission? 3 Α. That's probably overly broad, but many of 4 them, yes. 5 0. I asked you generally, and your answer was many of them, correct? 6 7 Α. Okay, yes. 8 And you are aware of a rule that Ο. prohibits market manipulation, correct? 9 10 Α. Yes. And energy market manipulation is 11 Ο. 12 unlawful, I know you are not a lawyer, but in your 13 lay opinion? Α. 14 Yes. And economic withholding for the purpose 15 Q. 16 of raising prices for the benefit of affiliated 17 plants is considered market manipulation, correct? 18 Α. Could be, yes. 19 Now, the Federal Energy Regulatory Q. 20 Commission has an office of enforcement, correct? 21 Α. Yes. 22 Q. That includes a division of investigations, correct? 23 24 Α. Yes. 25 Q. And it also includes a division of energy

4533 market oversight? 1 2 Α. Yes. 3 Ο. And a division of analytics and surveillance? 4 I'll believe it. 5 Α. And some or all of those monitor the PJM 6 Ο. 7 and other wholesale markets looking for instances of 8 market manipulation including economic withholding, 9 correct? 10 Α. Yes. 11 And the PJM market monitor also reviews Ο. 12 trades looking for trading patterns, correct? 13 Α. He does, yes. 14 Now, I want to move to another topic. Ο. You're familiar with ICF; are you not? 15 16 Α. Yes. 17 You used to work for ICF. Q. 18 Α. Yes. 19 And ICF is a well known firm in the Ο. 20 energy field, correct? 21 Α. Yes. 22 And one of the things that ICF is known Q. 23 for is its forecasting in the energy area, correct? 24 They do forecast, yes. Α. 25 Ο. For example, ICF is the main consultant

to the USEPA on analyzing the impact of environmental 1 2 regulations on the power industry, correct? 3 I'll take your word for it, yes. Α. 4 All right. And, well, that's something Ο. 5 you know, correct? I'm not sure of exactly that wording you 6 Α. 7 put around it. I don't know that, no. 8 Let's go to your deposition, sir. Let me Ο. refer you to page 86, sir, and let me ask you if you 9 10 answered the following question the following way starting at line 9: "Are you aware it's true, is it 11 12 not, that ICF is the main consultant to the U.S. 13 Environmental Protection Agency on analyzing impacts 14 of environmental regulations on the power industry? "Answer: Yes, I recall they have been 15 16 doing that for a very long time." Did I read that 17 correctly? 18 Α. Yes. 19 Now, for its forecasting, ICF uses the Q. 20 integrated planning model or IPM, correct? 21 Α. Yes. 22 Q. And you know that EPA does a regulatory 23 impact analysis, correct? 24 Yes, they do. Α. 25 Q. And would it be correct to say that the

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4535 1 regulatory impact analysis the EPA does uses the IPM? 2 Α. I don't know. 3 Have you ever read a regulatory impact Q. 4 analysis? 5 Α. I don't believe I have. I may have. Ι don't know. 6 7 All right. Well, let me see if I can Ο. 8 refresh your recollection. May I approach, your 9 Honor? 10 EXAMINER PRICE: You may. 11 Mr. Wilson, I have handed you a document Ο. 12 that has a title page. It says regulatory impact 13 analysis for the Clean Power Plan Final Rule. Do you see that? 14 15 Α. Yes. 16 And it's dated August 15? Q. 17 Yeah. August 2015. Α. 18 Thank you. And I would like to refer you Q. to page 3-1. Are you there, sir? 19 20 Α. Yes. 21 Ο. And if we're doing this right, it's a 22 chapter that says chapter 3, Cost, Emissions, Economic and Energy Impacts. Do you see that? 23 24 Α. Yes. 25 Q. And in paragraph 3.3, it talks about

4536 modeling, correct? 1 2 Α. Yes. 3 And does that refresh your recollection Ο. 4 as to whether the EPA uses IPM in regulatory impact 5 analysis? Apparently they did, yes. 6 Α. 7 Ο. And would you agree with me, sir, that 8 this is a -- that the IPM is a state-of-the-art peer reviewed dynamic linear programming model that can be 9 used to project power sector behavior? 10 11 MS. WILLIS: Objection. 12 EXAMINER PRICE: Grounds? 13 MS. WILLIS: Your Honor, he is reading this document into the record. Now, it's one thing 14 to use the document to refresh the witness's 15 16 recollection. It's another thing to bring statements 17 in from the document that are clearly hearsay, and I 18 would object. 19 MR. KUTIK: I haven't marked it, your 20 Honor. I am just asking this witness propositions. 21 THE WITNESS: I don't know. 22 EXAMINER PRICE: You don't know if you 23 agree with him? 24 THE WITNESS: No, I am answering the 25 question.

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| 1  | EXAMINER PRICE: No. His question is                  |
| 2  | would you agree with it?                             |
| 3  | THE WITNESS: No, the question was is it              |
| 4  | a state-of-the-art blah, blah, blah and my answer is |
| 5  | that I don't know.                                   |
| 6  | Q. I will put it to you again so we can be           |
| 7  | clear on the record.                                 |
| 8  | A. Okay.   |
| 9  | Q. Isn't it true that the IPM is a                   |
| 10 | state-of-the-art peer reviewed dynamic linear        |
| 11 | programming model that can be used to project power  |
| 12 | sector behavior?                                     |
| 13 | A. I don't know.                                     |
| 14 | Q. Is it true that the IPM is a multi                |
| 15 | regional dynamic deterministic linear programming    |
| 16 | model of the U.S. power sector?                      |
| 17 | MS. WILLIS: Your Honor, I am going to                |
| 18 | lodge a continuing objection. If we're going to sit  |
| 19 | here and read statements from this multi-page        |
| 20 | document for the rest of the night, we are going to  |
| 21 | be here forever. It is hearsay. And if you are       |
| 22 | using to he's reading the statements into the        |
| 23 | record, clearly hearsay. It did not refresh or it    |
| 24 | did not let me just stop there. It's hearsay.        |
| 25 | MR. KUTIK: Well, as a matter of fact,                |
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| 1  | your Honor, I am reading from my notes.               |
| 2  | MS. WILLIS: Well, those are hearsay as                |
| 3  | well.   |
| 4  | MR. KUTIK: But he can agree to them or                |
| 5  | not. I am putting propositions to him, your Honor,    |
| 6  | and he can agree or disagree as he has done all       |
| 7  | afternoon.  |
| 8  | EXAMINER PRICE: He can ask it doesn't                 |
| 9  | matter whether he references the document or not. He  |
| 10 | can ask him all the questions he wants. You can       |
| 11 | answer the question if you know.                      |
| 12 | Q. Do you need the question again, sir?               |
| 13 | A. The answer is I don't know.                        |
| 14 | Q. Would it be correct to say that the IPM            |
| 15 | provides forecasts of least cost capacity expansion,  |
| 16 | electric dispatch and emission control strategies     |
| 17 | while meeting energy demand and environmental         |
| 18 | transmission dispatch and reliability constraints?    |
| 19 | A. That sounds right.                                 |
| 20 | Q. And the model is designed to reflect               |
| 21 | electricity markets as accurately as possible.        |
| 22 | A. I don't know.                                      |
| 23 | Q. Okay. Now, you rely on a report, do you            |
| 24 | not, from the U.S. Energy Information Administration, |
| 25 | correct?  |
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| 1  | A. Yes.  |
| 2  | Q. And that's the annual energy outlook 2014         |
| 3  | projected to 2040, correct?                          |
| 4  | A. Yes, I did use that.                              |
| 5  | MR. KUTIK: May I approach, your Honor?               |
| 6  | EXAMINER PRICE: You may.                             |
| 7  | MR. KUTIK: Your Honor, we would like to              |
| 8  | have marked at this time the document we just talked |
| 9  | about, and it's Company Exhibit 60, and that is the  |
| 10 | Annual Energy Outlook 2014 with projections to 2040. |
| 11 | EXAMINER PRICE: It will be so marked.                |
| 12 | (EXHIBIT MARKED FOR IDENTIFICATION.)                 |
| 13 | MS. BOJKO: 2014 to what?                             |
| 14 | MR. KUTIK: 2040.                                     |
| 15 | Q. (By Mr. Kutik) Mr. Wilson, I've handed            |
| 16 | you what's been marked for identification as Company |
| 17 | Exhibit 60, and that's the Annual Energy Outlook,    |
| 18 | correct?   |
| 19 | A. Yes.  |
| 20 | Q. And that's that has some of the                   |
| 21 | material that you relied upon, correct?              |
| 22 | A. I believe so, yes. I pulled it down off           |
| 23 | the internet but, yes.                               |
| 24 | Q. Okay. And would it be fair to say that            |
| 25 | when the EIA in the very report that you rely on     |
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4540 wanted to compare its projections to other 1 2 projections, one of the forecasts that it used was 3 ICF's? 4 Α. I believe so, yes, yes. 5 Ο. All right. And we could find that comparison -- well, back up. There's a section of 6 7 the 2014, we will call this the AEO, that compares 8 IEA's projections to other forecasts, correct? 9 Α. Yes. 10 And one of -- one area of projection Q. comparison is for natural gas prices, correct? 11 12 Α. Yes. 13 Ο. And we can find that comparison on page CP12. 14 MS. BOJKO: Counsel, if you are going to 15 16 refer to the document, do you have extra copies for 17 the parties? 18 MR. KUTIK: Yes. 19 MS. WILLIS: Can I have the reference 20 again to the page? 21 MR. KUTIK: Sure. C as in Charles, P as 22 Paul, 12. 23 MS. WILLIS: Thank you. 24 MR. KUTIK: And it's about midway through 25 the document. The chapters are orderly marked and

4541 1 marginated. 2 MS. WILLIS: Was that your doing? 3 MR. KUTIK: I wish I was that smart. 4 Are you there, sir? Q. 5 Α. CP12, yes. All right. And on CP12, we can see some 6 Ο. 7 commentary with respect to price forecasts, do we 8 not? 9 Where are you referring? Α. 10 Well, how about under the heading Prices. Q. 11 Α. Okay. 12 Q. Would you agree with me what they are 13 doing there is comparing price forecasts? For 14 natural gas? 15 Α. Apparently, so. 16 And it also includes a commentary on how Ο. 17 ICF's price forecast compared to the IEA's forecast, 18 correct? 19 They are mentioned here, yes. Α. 20 Now, would it be -- would it be fair to Q. 21 say this in your career, you haven't done a lot of 22 forecasting? 23 Α. Yes. 24 And the modeling and forecasting that you Ο. 25 have done was mostly earlier in your career and later

4542 you have been merely evaluating models and forecasts, 1 2 correct? 3 Except for the merely, yes. Α. 4 Fair enough. Now, your resume, for this Q. 5 case, you didn't do any sort of computer modeling, 6 correct? 7 I made computer calculations, but I Α. 8 didn't do modeling in the sense of, you know, like running a dispatch model, correct. 9 10 And you didn't do any modeling of the Q. costs of the proposed transaction or potential 11 revenues of the companies, correct? 12 I did calculations relevant to that. 13 Α. Т 14 did not do -- if you are asking about running like a 15 dispatch model, no, I didn't. 16 Okay. And you didn't do any independent Ο. forecast of energy prices, correct? 17 18 Α. That's correct. 19 You didn't do any independent forecasts Q. 20 of capacity prices, correct? 21 Α. Correct. 22 You didn't do any fore -- forecasts or Q. independent forecasts of natural gas prices, correct? 23 24 Α. Correct. 25 Q. And you've done no analysis of the effect

4543 of plant retirements or additions within PJM on 1 2 wholesale capacity prices in PJM, correct? 3 I've looked at the history over time and Α. 4 at the time of many retirements. I didn't do any 5 independent analysis, and, of course, the history is 6 that there wasn't much impact. 7 MR. KUTIK: Move to strike, your Honor. 8 I'd ask him to answer the question "yes" or "no". 9 THE WITNESS: Can you read it back? 10 EXAMINER PRICE: Let's have the question 11 and answer back again. 12 (Record read.) 13 EXAMINER PRICE: Mr. Wilson, we will 14 count this as your do over, but I would instruct you 15 to please answer this question "yes" or "no" for 16 counsel. 17 Α. I haven't done a study, correct. 18 And would your answer be the same with Ο. 19 respect to the effect on wholesale energy prices? 20 Α. Yes. 21 Ο. And you've done no analysis or study of 22 the impact of any proposed environmental regulation 23 on generation supplies within PJM? 24 Α. Correct. 25 Q. Or on wholesale capacity prices in PJM.

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| 1  | A. Correct.   |
| 2  | Q. Or on wholesale energy prices within PJM.          |
| 3  | A. Yes.   |
| 4  | Q. And you didn't do any modeling of the              |
| 5  | effect of the proposed transaction and the companies' |
| 6  | sale of the plant's output into the PJM markets,      |
| 7  | correct?  |
| 8  | A. I think I already answered that, yes.              |
| 9  | Q. You didn't do any modeling of any                  |
| 10 | reliability within PJM, correct?                      |
| 11 | A. Modeling of reliability within PJM.                |
| 12 | Q. Yes.   |
| 13 | A. Could you be a little clearer what you             |
| 14 | <pre>mean by "modeling reliability"?</pre>            |
| 15 | Q. Well, did you do any models to determine           |
| 16 | whether there would be any issues with reliability    |
| 17 | within PJM?   |
| 18 | A. No.  |
| 19 | Q. Now, I want to talk to you a little bit            |
| 20 | about the three cases that you developed. And,        |
| 21 | again, if I am getting into an area that's            |
| 22 | confidential, please let me know. Would it be         |
| 23 | correct to say that what you did was that you you     |
| 24 | took some natural gas price forecasts that you        |
| 25 | thought were more likely and you used the natural gas |

4545 prices from those forecasts and then otherwise you 1 2 used -- the rest of the information you used was 3 either from Mr. Lisowski or Mr. Rose? 4 Α. More or less, yes. I mean, they were not 5 forecasts. One was a projection, and one was forward 6 prices. 7 Thank you --Q. 8 Α. But yes. 9 Ο. -- for that correction. And so in your 10 cases as the natural gas prices changed, you changed energy prices, correct, or had an effect on changing 11 12 energy prices, correct? 13 Α. Yes. 14 And you did no adjustment to capacity Q. 15 prices, correct? 16 Α. Correct. 17 Q. Now, to get your new energy price, you 18 took a natural gas price and you multiplied that by implied heat rate? 19 20 Α. Yes. 21 Ο. And your implied heat rate was held 22 constant throughout, correct? 23 Α. No. 24 How did it change? Ο. 25 Α. I used the heat rates that were implicit

4546 in the ICF Lisowski analysis which change over time. 1 2 Ο. So you didn't change the Lisowski/Rose 3 heat rates, correct? 4 Α. Correct. 5 Ο. All right. Now, in terms of deriving your natural gas price, would it be fair to say you 6 7 started with the Henry Hub price? 8 That was the third scenario, yes. Α. 9 All right. And did you apply some Ο. delivery factor to that? 10 11 Α. Yes. 12 Q. And was the delivery factor the factor that was used in the ICF model? 13 14 Α. Yes. 15 Ο. Now, one of the cases that you used was 16 based upon the EIA 2014 AEO that we just looked at, 17 correct, the base case? 18 Reference case, yes. Α. The reference case. And for its natural 19 Q. 20 gas projections, would it be fair to say that the EIA 21 admitted for its base case that it had one of the 22 lowest forecasts through 2015 in comparison to the other forecasts that the EIA looked at? 23 24 MS. WILLIS: Objection. 25 EXAMINER PRICE: Grounds?

4547 1 MS. WILLIS: If he is -- if Mr. Kutik 2 wants to present the statement or the admission by 3 EIA that its base case had one of the lowest 4 forecasts through 2014, I think that that's something 5 he needs to present to the witness before asking the witness if he -- if he recalls that EIA had an 6 admission of that along those lines. 7 8 EXAMINER PRICE: Overruled. 9 Ο. And I may have misspoke because I didn't mean to say 2015. So let me restate it. 10 11 EXAMINER PRICE: Please. 12 Ο. For its natural gas projections and for 13 its reference case, EIA admitted that it had one of 14 the lowest forecasts through 2025 with respect to the other forecasts that it compared to for natural gas 15 16 prices. Correct? 17 Α. I don't recall. 18 All right. Let me refer you, sir, to Ο. 19 page CP-12. 20 MS. WILLIS: Thank you. 21 And on the paragraph that is under the Ο. 22 heading "Prices," the one that we looked at earlier where it's discussing natural gas price projections, 23 24 does it not say through 2025 the AEO 2014 reference 25 case has the second lowest projected Henry Hub prices

4548 1 after IHSGI. However, it has the highest projected 2 2035 spot price at \$6.92 per MMBtu in real 2012 3 dollars followed by EVA and ICF at 6.46 and -- excuse 4 me, \$6.46 and \$6.89 per MMBtu respectively, correct? 5 That's what it says. That's what it says. 6 Α. 7 Ο. All right. And you would agree with me, 8 would you not, that the EIA AEO reference case would 9 take into account facts that the EIA knew at the time 10 of its report? 11 That's prepared months ahead, but they Α. 12 would try to take into account facts that they knew, 13 yes. 14 Okay. Things like data on natural gas Q. production? 15 16 Α. Yes. 17 Q. Natural gas reserves? 18 Α. Yes. 19 Natural gas consumption? Q. 20 Α. Yes. 21 Ο. And the EIA provides a discussion of its 22 assumptions, correct? 23 Α. Yes. 24 And one of the discussions -- one of the Ο. 25 assumptions appears on -- at the very beginning on

1 page II after the title page. Are you there? 2 Α. Yes. 3 And it indicates -- and it indicates Ο. 4 what -- it indicates what projections -- well, it 5 indicates that the projections are based generally on federal, state, and local laws and regulations in 6 7 effect as of the end of October 2013. The potential 8 effects of pending or proposed legislation, 9 regulations, and standards and sections of existing 10 legislation that required implementing regulations or funds that have not been appropriated, are not 11 12 reflected in the projections. In certain situations, 13 however, where it is clear that a law or regulation 14 will take effect shortly after the -- after AEO 2014 is completed, it may be considered in the 15 16 projections. Do you see that? 17 Α. Yes. It says -- It says the potential 18 impacts, not effects. 19 Thank you. It would be correct to say Q. 20 that the 2014 AEO reference case did not include the 21 effects of the Clean Power Plan, correct? 22 Α. Correct. 23 Ο. The AEO did, however, have a case where 24 it projected carbon prices and those cases were 25 called the GHG10 and the GHG25; is that correct?

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| 1  | A. I don't know.                                     |
| 2  | Q. So you don't know whether that whether            |
| 3  | those cases were in the AEO for 2014?                |
| 4  | A. I don't know, yes.                                |
| 5  | Q. And so it would be fair to say you don't          |
| 6  | know the relationship between the base case or the   |
| 7  | reference case, excuse me, and those two GHG cases,  |
| 8  | correct?   |
| 9  | A. Correct.  |
| 10 | Q. Now, would it be correct to say that you          |
| 11 | believe that carbon regulation would have an upward  |
| 12 | pressure on energy prices?                           |
| 13 | A. It likely would, yes.                             |
| 14 | Q. And would it also and it also would               |
| 15 | have an upward pressure on natural gas prices?       |
| 16 | A. It could. Yes.                                    |
| 17 | Q. Would it also be fair to say that the             |
| 18 | 2014 AEO reference case does not consider or factor  |
| 19 | in the proposals for changes, they would have been   |
| 20 | proposals at this time, with respect to the rules in |
| 21 | PJM such as the capacity performance rule?           |
| 22 | A. That's probably correct, yes.                     |
| 23 | Q. And it would be fair to say that you              |
| 24 | believe that the capacity performance rule will      |
| 25 | likely lead to higher capacity prices?               |
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4551 1 Α. It has, yes. 2 Now, I want to talk about your second Q. 3 case. Your second case is based upon one of the 4 cases in the 2014 AEO other than the reference case, 5 correct? Correct. 6 Α. 7 Ο. And the 2014 AEO has over 20 different 8 cases that it analyzes, correct? 9 Α. It has many cases, yes. And for natural gas prices in the 2014 10 Q. AEO, it has five cases. 11 12 Α. Yes. 13 Ο. Now, I want to refer you now to page M, 14 as in mother, T as in Thomas, 22 of the AEO for 2014. 15 EXAMINER PRICE: That was MT-22? 16 MR. KUTIK: Yes. 17 EXAMINER PRICE: Thank you. 18 And we see, do we not, on that page a Q. figure MT-41, correct? 19 20 Α. Yes. And that shows projections for natural 21 Ο. 22 gas prices in five cases. 23 Α. Correct. 24 And you picked the high oil and gas Ο. 25 resource case, correct?

4552 I used the reference case and the high 1 Α. 2 oil and gas resource case, correct. 3 Now we are talking about your second Q. 4 case. For your second case, you picked the high oil 5 and gas resource case, correct? 6 Α. Correct. 7 Q. And of the five cases, that's the lowest 8 case with respect to the prices it projects for natural gas prices? 9 10 Α. In most years, correct? 11 Ο. And in most years, it's the lowest by a 12 lot. 13 Α. Correct. 14 Now, one of the differences between the Q. 15 high oil and gas resource case and the other cases is 16 that in the high oil and gas resource case, there's 17 certain assumptions with respect to the amount of 18 resources that is oil and gas resources and the 19 amount of oil and gas resource production, correct? 20 Α. Yes. There are different assumptions 21 about resource and production, yes. 22 Right. And as the name implies, the high Q. 23 oil and gas resource case anticipates higher levels 24 of production than other cases. 25 Α. Yes.

4553 1 And you would agree with me, would you Ο. 2 not, that there is a great deal of uncertainty in 3 projecting oil and gas production? 4 Α. Yes. I mean, it responds to prices but 5 there is some uncertainty, yes. Would you say there is a great deal of 6 Ο. 7 uncertainty? 8 About production, no. Α. 9 Ο. All right. Well, how about with respect 10 to the amount of resources and production? I wouldn't say a great deal of 11 Α. uncertainty when we -- in the context we've been 12 13 talking about prices which are much more uncertain. 14 Well, so you would not agree that there Ο. 15 is a great deal of uncertainty with respect to 16 projections of oil production. 17 Α. Far out in time perhaps, yes. 18 Ο. All right. Well, let me have you refer 19 to page IF-10. Are you there, sir? 20 Α. Yes. 21 Ο. And IF-10 is -- has a discussion of U.S. 22 type oil production, correct? 23 Α. Yes. 24 And about three paragraphs down -- well, 0. 25 back up. The second paragraph talks about rejected

4554 trends in oil production vary tremendously in the 1 2 alternative cases, and those trends hold important 3 implications for the United States, correct? 4 Α. That's oil, yes. 5 Ο. And then it goes on to talk about the 6 high oil and gas resource case, correct? 7 Α. Yes. 8 And the last paragraph of that sentence Ο. 9 says the range of production and imports in these 10 alternative cases as shown in Figures IF2-1 and IF2-2 11 illustrates the importance of uncertainty in the 12 resource and technology assumptions. Do you see 13 that? 14 Α. I see that. 15 Q. And in the next paragraph, it talks about 16 some more of the assumptions, correct, and how they 17 were used? 18 The paragraph starting "Policy makers"? Α. 19 Ο. Yes. 20 You want me to read that? Α. 21 Ο. No. I am just asking you if it's 22 correct. I have to read it. 23 Α. 24 All right. Well, let me refer you, sir, Ο. 25 to I think the third sentence which begins four lines

4555 from the bottom of that paragraph, the line that 1 2 begins, "For wells in each region." Do you see that 3 line? 4 Α. No. Four lines from the bottom. Of the paragraph we were looking at. 5 Ο. Of the line starts that's the end of a 6 Α. 7 sentence? 8 Yes. And the next sentence reads, "There Ο. is still a great deal of uncertainty in the 9 projections of U.S. type oil production, " correct? 10 11 Α. Yes. 12 Q. Now, isn't it true that -- Well, so you 13 would disagree that projection of oil and gas 14 production is an undertaking of great uncertainty, correct? 15 16 Can you try that again? Α. 17 MR. KUTIK: Sure. Can it be read, 18 please. 19 EXAMINER PRICE: Let's have the question 20 back. 21 (Record read.) 22 There is uncertainty for sure, yes. Α. 23 Q. But my question was great uncertainty. 24 Great compared to what? Α. 25 Q. Well, can you agree with that or can't

4556 1 you? 2 I would say it's -- it's uncertain. Α. Ιt 3 depends on how far out you go and great is compared 4 to what? So.... 5 Ο. Okay. So isn't it true, sir, that you 6 haven't been shy in using adjectives or adverbs 7 relating to the word uncertainty in your career 8 before the Commission? 9 Α. You mean my great uncertainty? 10 Ο. How about highly uncertain? 11 Α. Okay. I probably have from time to time 12 in context. 13 Ο. All right. And you've used the words 14 extraordinary uncertainty in testimony before the Commission. 15 16 I may have, yes. Α. 17 Okay. Now, I think we said earlier --Q. 18 let me back up. 19 MR. KUTIK: Your Honor, may I have a 20 minute? EXAMINER PRICE: You may. Let's go off 21 22 the record for 5 minutes plus and reconvene at 5:25. 23 (Recess taken.) 24 EXAMINER PRICE: Let's go back on the 25 record. Please continue, Mr. Kutik.

4557 1 Q. (By Mr. Kutik) The EIA publishes a great 2 deal of reports, does it not? 3 That's correct. Α. 4 And are you aware of a report entitled Ο. "Short-term Energy Outlook"? 5 Α. Yes. 6 7 MR. KUTIK: May I approach, your Honor? 8 EXAMINER PRICE: You may. 9 MR. KUTIK: Your Honor, I would like to 10 have marked at this time Company Exhibit 61, a document entitled "U.S. Energy Information 11 12 Administration Short-Term Energy Outlook, September, 13 2015." EXAMINER PRICE: It will be so marked. 14 (EXHIBIT MARKED FOR IDENTIFICATION.) 15 16 Mr. Wilson, I have handed you what has Ο. 17 been marked for identification as Exhibit 61 "Short-Term Energy Outlook EIA" from 2015; is it not? 18 19 Α. Yes. 20 Q. And it provides, does it not, in the 21 fourth bullet an estimate for a commentary about 22 crude oil production, correct? 23 Α. Yes. 24 And it indicates that crude oil Ο. 25 production declined by 140,000 barrels per day in

4558 1 August compared to July production. 2 Α. Yes. 3 And crude oil production's forecast Ο. 4 continues decreasing through mid 2016 before a growth resumes late in 2016. Do you see that? 5 That's what it says, yes. 6 Α. 7 Ο. And are you familiar with the 8 International Energy Agency? 9 Α. Yes. 10 And they are charted by the United Ο. Nations? 11 12 Α. I don't know. 13 Ο. It is an agency that publishes market 14 reports from time to time? 15 Market reports. They do similar work to Α. 16 EIA but with an international view, and I think they 17 are kind of an OECD organization, is my 18 understanding. 19 And for those of us who are acronymally Q. 20 challenged, what is that? 21 Α. Kind of the European organization of 22 economic cooperation. I am not sure, but they are similar to EIA with an international purview. 23 2.4 MR. KUTIK: Thank you. May I approach, 25 your Honor?

4559 1 EXAMINER PRICE: You may. 2 MR. KUTIK: Your Honor, we would like to 3 have marked at this time as Company Exhibit 62 a 4 document entitled "Oil Market Report from the 5 International Energy Agency, August 12, 2015." EXAMINER PRICE: It will be so marked. 6 7 (EXHIBIT MARKED FOR IDENTIFICATION.) 8 Mr. Wilson, I have handed you what has Q. 9 been marked for identification as Company Exhibit 62, 10 the Oil and Market Report from August 2015. Do you 11 see that? 12 Α. Yes. 13 Q. Have you seen reports of this type? 14 Α. No. 15 Q. Let me refer you, sir, to page 24. And 16 there is a reference, is there not, to something 17 called Baker and Hughes Oil Rig Count? 18 I see that, yes. Α. 19 And are you familiar with what the Baker Q. 20 Hughes Oil Rig Count is? 21 Α. Yes. 22 And that is data that's published about Q. 23 oil rigs? 24 Α. Yes. 25 Q. And that's data that's widely available?

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| 1  | A. I presume so.                                     |
| 2  | Q. And is the pattern that's shown on page           |
| 3  | 24 a pattern you are familiar with?                  |
| 4  | MS. WILLIS: Objection.                               |
| 5  | EXAMINER PRICE: Grounds?                             |
| 6  | MS. WILLIS: I believe, your Honor, this              |
| 7  | is hearsay. There's been no foundation laid. He      |
| 8  | said he's not seen the report before. This is not    |
| 9  | the witness to bring this in on.                     |
| 10 | EXAMINER PRICE: Okay. Let's deal with                |
| 11 | the foundation question first. Mr. Kutik.            |
| 12 | MR. KUTIK: Your Honor, he said he was                |
| 13 | familiar with the Baker Hughes Oil Rig Count, and    |
| 14 | then I am asking if this is a pattern that looks     |
| 15 | familiar to him. That's how I am laying my           |
| 16 | foundation.  |
| 17 | MS. WILLIS: And the pattern you are                  |
| 18 | talking about is on page 24 of this document, so you |
| 19 | are bringing this document you are trying to         |
| 20 | assert or you are trying to use this document to     |
| 21 | bring in evidence being used for the truth of the    |
| 22 | matter asserted.                                     |
| 23 | MR. KUTIK: Well, your Honor                          |
| 24 | EXAMINER PRICE: Let's wait to see what               |
| 25 | he does with the document, so at this time at this   |
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4561 time, we are not ruling on the admissibility of the 1 2 document just yet, but at this time, I am going to 3 overrule your objection. He can answer the question 4 if he knows. 5 MS. WILLIS: On foundation you are overruling? 6 7 EXAMINER PRICE: Your objection on both 8 grounds. 9 THE WITNESS: Let's have the question 10 again. EXAMINER PRICE: Yes. 11 12 Q. I think the question was is the pattern 13 that's shown in the graph on page 24 of this document 14 headed Baker Hughes Oil -- U.S. Oil Rig Count a 15 pattern that you are familiar with? 16 Well, the rig counts go up and down. Α. 17 They are kind of a leading indicator of production, 18 so when prices are low, as they have been for quite a 19 while now, you are going -- you can expect to see rig 20 count decline. So rig count, you know, is going to 21 be more volatile in production obviously because it 22 reflects efforts to bring more production online. So 23 when there's a glut of production as there has been 24 recently and prices are low, you should expect to see 25 the rig count decline, yes.

4562 1 MR. KUTIK: Your Honor, I move to strike 2 everything but the word "yes." The question was was 3 he familiar with this pattern. 4 EXAMINER PRICE: Actually, I think that's 5 an open-ended question. I am going to go ahead and deny the motion to strike. 6 7 You would agree with me what this Baker Q. 8 Hughes U.S. Oil Rig Count shows is a steep decline in rig count after January of 2014. 9 10 MS. WILLIS: Objection. THE WITNESS: Wait. Let me get back to 11 12 your page again. 13 MS. WILLIS: Mr. Wilson, there is an 14 objection pending. 15 MR. KUTIK: It is page 24, sir. 16 EXAMINER PRICE: Grounds? 17 MS. WILLIS: Your Honor, this is hearsay. 18 Now he is trying to use the graph to assert that the 19 graph shows information in which -- about the --20 EXAMINER PRICE: I like your foundation 21 argument better at this point. 22 MS. WILLIS: And there is no foundation, 23 yes, and in fact, there is no foundation. 24 EXAMINER PRICE: We have been fairly 25 consistent saying you cannot ask questions of the

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| 1  | witness regarding foundation. I have tried to give    |
| 2  | you a little bit of leeway, and I think your last     |
| 3  | question, I am not striking your last question        |
| 4  | because you asked if he was familiar with the pattern |
| 5  | and you got the answer, but I think you need to lay a |
| 6  | better foundation for this document which he claims   |
| 7  | he has never seen before before you can ask more      |
| 8  | questions about it.                                   |
| 9  | MR. KUTIK: Certainly, your Honor.                     |
| 10 | Q. (By Mr. Kutik) Mr. Wilson, isn't it true           |
| 11 | that U.S. oil rig counts have declined since January  |
| 12 | of 2014?  |
| 13 | A. The graph actually shows a decline from            |
| 14 | about January 15 of this year.                        |
| 15 | Q. Okay.  |
| 16 | EXAMINER PRICE: I don't think he was                  |
| 17 | actually asking you the question regarding the graph. |
| 18 | MR. KUTIK: That's fine, your Honor. I'm               |
| 19 | satisfied with that answer.                           |
| 20 | EXAMINER PRICE: Okay.                                 |
| 21 | Q. And the EIA also publishes data I think            |
| 22 | as we mentioned earlier on natural gas consumption,   |
| 23 | correct?  |
| 24 | A. Yes.   |
| 25 | Q. And are you familiar with that data?               |
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| 1  | A. Yes.   |
| 2  | Q. And would it be correct to say that that           |
| 3  | data shows a general increase in natural gas          |
| 4  | consumption since at least 2008?                      |
| 5  | A. I don't recall. Consumption had been               |
| 6  | flat for a long time, but there's so much supply      |
| 7  | pushing and low prices, that I think consumption is   |
| 8  | finally starting to catch up, yes.                    |
| 9  | MR. KUTIK: Your Honor, at this time I                 |
| 10 | would like to have marked as Company Exhibit 63 a     |
| 11 | document marked a document labeled U.S. Natural       |
| 12 | Gas Total Consumption from the EIA.                   |
| 13 | EXAMINER PRICE: It will be so marked.                 |
| 14 | (EXHIBIT MARKED FOR IDENTIFICATION.)                  |
| 15 | MR. KUTIK: May I approach?                            |
| 16 | EXAMINER PRICE: You may.                              |
| 17 | Q. Mr. Wilson, I have handed you what has             |
| 18 | been marked for identification as Company Exhibit 63. |
| 19 | Do you recognize this as information from the U.S.    |
| 20 | Energy and Information Administration on natural gas  |
| 21 | consumption?  |
| 22 | A. Yes.   |
| 23 | Q. And does this pattern that's shown on the          |
| 24 | graph and the table that's under it, is that          |
| 25 | consistent with your understanding of natural gas     |
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4565 consumption in the United States? 1 2 Α. Yes. 3 Are you familiar with the depletion Ο. 4 curves from natural gas wells? 5 Α. Yes. Would it be fair to say that a depletion 6 Ο. 7 curve from a shale well is steeper than a curve from 8 a conventional well? 9 Α. That's my understanding, yes. 10 Ο. And would it be fair to say for a shale 11 well, within five years, a well's maximum output 12 decreases by 70 percent? 13 Α. T don't know. 14 Does that sound about right to you? Ο. 15 Α. It could be, yes. 16 Now, I want to talk about your third Ο. 17 case, and I think as you mentioned earlier, your 18 third case is based upon natural gas forwards, 19 correct? 20 Α. Yes. 21 Ο. And the price for a forward reflects an 22 actual transaction, correct? 23 Α. Yes. 24 Or series of actual transactions, 0. correct? 25

4566 1 The quotes that you can find reflect --Α. 2 yes, they reflect a series of transactions generally, 3 yes. And there may be a different volume of 4 Ο. 5 trades represented for a particular month. Α. Yes. 6 7 Ο. And volume supporting a particular 8 forward price drops out the further one goes out. 9 Α. Yes. 10 And for 2015, that could be millions or Q. 11 hundreds of thousands of transactions in any month. 12 Α. That's probably right, yes. 13 Ο. And by 2017, it might be in the thousands. 14 Α. I don't recall. 15 16 2018 might be more like a couple hundred. Q. 17 For Henry Hub? Α. 18 Q. For 2018. 19 I think it holds up a little better than Α. 20 that. 21 All right. Well, would it be fair to say Ο. 22 that after three years, the market is fairly liquid? 23 Α. Well, that's just sort of a vague 24 statement, so I can't really agree to it. 25 Q. Well, would you agree that after three

4567 years, the volume certainly gets lower in terms of 1 2 transactions? 3 Are you referring to daily volume? Α. 4 I am talking about the volumes for Ο. 5 forward, sir. Are you talking about daily volume? 6 Α. 7 Ο. I'll start there. How about monthly 8 volumes? 9 The daily volumes are much lower for Α. 10 months out, for years out, yes. Well, now, in your -- this is where I'm 11 Ο. 12 not sure I'm getting into confidential, so you tell 13 me, is your -- do you regard your line for your 14 forward case, I will call your third case in Exhibit JFW-5 confidential? 15 16 The forward projection? Α. 17 Q. Yes. 18 Of course not. Α. 19 I want to make sure. Now, with respect Q. 20 to your case, would it be fair to say that in the 21 more distant years, your graph figures represents 22 fairly liquid markets? 23 Α. In the distance years, that's probably a 24 fair statement. 25 Q. Okay. And would you agree with me future

4568 1 prices are good only as a short-term forecast? 2 Α. No. I don't consider a forecast at all. 3 I consider it indicative of what market participants 4 consider to be a fair price for trading. It's not really a forecast, but it definitely reflects market 5 participant's forecast. 6 7 Would you agree with me the historical Q. 8 pattern of natural gas futures prices exhibits high volatility even on a month-to-month basis? 9 10 Α. Only the near and futures prices, you know, for the coming month which are very close to 11 12 spot prices. If you go out three or four years, they 13 are actually very stable. 14 All right. For one of your recent Q. 15 engagements, you participated in a -- strike that. 16 And for one -- for one of your recent 17 engagements, you participated in a panel teleseminar 18 on natural gas forward pricing? 19 Α. Yes. 20 Q. That was put on by the National 21 Regulatory Research Institute, correct? 22 Α. Yes. 23 And one of the persons that works for NRI Ο. 24 is Ken Costello? 25 Α. Yes.

4569 1 And you believe he is an authority on Q. 2 regulatory matters. 3 Α. Yes. 4 And you've been on seminars with him on Q. 5 the subject of gas price forecasts. I believe he was involved in that panel, 6 Α. 7 yes. 8 All right. Q. 9 MR. KUTIK: Your Honor, at this time, I would like to have marked as Company Exhibit 64 a 10 11 document entitled "Natural Regulatory Research 12 Institute Looking Before Leaping: Are Your Utilities 13 Gas Price Forecasts Accurate?" Dated May 10 -- May, 2010. 14 15 EXAMINER PRICE: It will be so marked. 16 (EXHIBIT MARKED FOR IDENTIFICATION.) 17 MR. KUTIK: May I approach? 18 EXAMINER PRICE: You may. 19 MR. McNAMEE: Could we get copies of 20 this? Oh, thank you. (By Mr. Kutik) Mr. Wilson, have you ever 21 Ο. 22 seen this before? Not that I recall, but I may have. 23 Α. 24 You may have? Do you know Mr. Costello? Ο. 25 Α. I do.

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| 1  | Q. Let me have you refer to page 6. And at            |
| 2  | page 6, the third full paragraph it says, "Many       |
| 3  | analysts consider NYMEX futures prices to be unbiased |
| 4  | forecasts of Henry Hub spot prices; they regard       |
| 5  | prices discovered at futures exchanges as today's     |
| 6  | best estimate of tomorrow's cash market prices for    |
| 7  | standardized quantities of commodities such as        |
| 8  | natural gas. Futures prices are good only as a        |
| 9  | short-term forecast; the vast majority of NYMEX       |
| 10 | contracts settle within the following 12 months. The  |
| 11 | historical pattern of natural gas futures prices      |
| 12 | exhibits high volatility even on a month-to-month     |
| 13 | basis." Do you disagree with Mr. Costello?            |
| 14 | MS. WILLIS: Objection.                                |
| 15 | EXAMINER PRICE: Grounds?                              |
| 16 | MS. WILLIS: Your Honor, first of all,                 |
| 17 | there is no foundation laid on this document. Second  |
| 18 | of all, we are at we are being asked to accept a      |
| 19 | hearsay on hearsay which was the same issue I believe |
| 20 | that caused testimony to be struck. It was of the     |
| 21 | same organization, in fact, the same gentleman,       |
| 22 | Mr. Costello.   |
| 23 | EXAMINER PRICE: Mr. Kutik?                            |
| 24 | MR. KUTIK: Your Honor, I he has                       |
| 25 | recognized Mr. Costello as a authority. He said he    |
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4571 may have seen this. I am now using it as an 1 2 authoritative treatise. Rather than the whole 3 document coming in, I am asking for a statement from 4 the treatise. 5 EXAMINER PRICE: I am not going to allow 6 an NRRI document, with all due respect to 7 Mr. Costello, as a learned treatise. 8 MS. WILLIS: Thank you, your Honor. 9 (By Mr. Kutik) Would it be fair to say, Ο. 10 sir, that after the forwards prices in your third case, you applied an inflation rate beyond 2023? 11 12 Α. That's right. 13 Ο. And so would it be fair to say then that 14 your calculation assumes that natural gas prices will be flat in real terms for the last eight years? 15 16 Α. Yes. 17 Q. Of your case? 18 Yes. It extends out the forward prices Α. 19 using an inflation rate. 20 Q. Right. Now, I want to switch topics and 21 ask you about a couple of questions about demand 22 Isn't it true, sir, that with respect to response. 23 demand response the PJM Market Monitor believes that 24 the demand response has -- had the effect of 25 suppressing capacity prices.

4572 1 Α. He has suggested that, yes. On page 40 of your testimony, you ask 2 Q. 3 about demand response contributions to meeting 4 capacity requirements being eliminated. 5 Α. Yes. And would be it be fair to say that 6 Ο. 7 Mr. Rose did not assume that the contribution of 8 demand response to capacity requirements would be eliminated? 9 10 Α. I believe that's correct, yes. 11 And, in fact, would it be fair to say you Ο. 12 don't know what Mr. Rose assumes for the contribution 13 of demand response to capacity requirements? 14 Α. Yeah, I don't think he does assume. 15 Q. Now, I want to ask you to shift to a 16 different topic, just a couple of questions. You 17 recognize, do you not, that states like Ohio have an 18 interest in generation in their borders for siting 19 purposes? 20 Α. They review requests to site power plants. 21 22 And so the answer to my question is Q. "ves." 23 24 Well, your -- your wording was strange. Α. 25 Yes, they -- they review applications to site power

1 plants.

Q. All right. So they have an interest in siting where the generation is within their borders, correct?

5 Α. I'm not sure whether you are saying that they want generation to be in their borders or 6 7 whether they have an interest in reviewing siting 8 applications and taking into account all the many 9 considerations that go into review of siting 10 applications. I am not sure which of those things 11 you are asking. 12 Q. You recognize that states have an 13 interest in their borders for economic development 14 purposes; do you not? 15 Α. Yes. 16 Now, you follow the -- you regularly Ο. 17 follow what goes on within -- at PJM, correct? 18 Α. Yes. 19 Would it be fair to say that PJM is a net Q. 20 importer of capacity? 21 Α. Yes. 22 And would it be fair to say that you have Q. 23 reviewed PJM information with respect to the queue 24 for plant additions within PJM?

A. Yes.

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| 1  | Q.          | And the process to enter the market as a |
| 2  | new unit ha | s a number of steps; does it not?        |
| 3  | Α.          | Yes.                                     |
| 4  | Q.          | And one of those steps is a feasibility  |
| 5  | study?      |  |
| 6  | Α.          | Yes.                                     |
| 7  | Q.          | Another step is an impact study.         |
| 8  | Α.          | Yes.                                     |
| 9  | Q.          | And not all projects that are or even    |
| 10 | complete vi | sibility impacts feasibility or impact   |
| 11 | studies act | ually come online.                       |
| 12 | Α.          | That's correct.                          |
| 13 | Q.          | About 50 percent don't.                  |
| 14 | Α.          | I am not sure of the fraction.           |
| 15 | Q.          | Does that sound about right to you,      |
| 16 | though?     |  |
| 17 | Α.          | Could be, yes.                           |
| 18 | Q.          | Within the last five years of the PJM    |
| 19 | plants that | have retired or that have announced      |
| 20 | retirements | the majority have been of coal fired,    |
| 21 | would you a | gree?                                    |
| 22 | Α.          | That's correct.                          |
| 23 | Q.          | And with respect to plant additions in   |
| 24 | the last fi | ve years and those additions that are    |
| 25 | currently i | n the queue, a majority of those are gas |
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4575 1 fired, correct? 2 There's quite a bit of wind also, but I Α. 3 think that's correct the majority is gas fired. 4 All right. And the natural gas fired Ο. 5 plants are either peaking units or combined cycle 6 units. 7 Well, most of them are either combustion Α. 8 turbines or combined cycle units. 9 Ο. All right. Within PJM, there have been 10 issues of -- well, issues of fuel assurance have 11 become a greater concern, correct? 12 Α. Yes, a couple of years ago, yes. 13 Ο. And that has become a concern given the 14 increased reliance on natural gas-fired generation. 15 Α. Yes. 16 Within the population of natural gas Ο. 17 plants, the fraction that was forced out -- that was 18 on forced outage during the polar vortex was greater 19 than the population among the plants of other 20 categories. 21 Α. That may have been the case, yes. 22 Within the last 10 years in PJM, is it Q. 23 true that returns for regulated utilities have been 24 better than returns for competitive power companies? I haven't done that analysis, but it's 25 Α.

1 likely correct.

2 Q. Thank you. In 2014, would it be fair to 3 say that a substantial portion of generating units in 4 PJM did not achieve cost recovery through revenue --5 from energy markets alone? They received capacity payments, so 6 Α. probably correct, but I haven't done that analysis. 7 8 The capacity market is in place to Ο. 9 address the gap between revenue market -- revenue 10 from markets and revenue needed to attract sufficient 11 capacity to meet adequacy targets? 12 Α. I think what you wanted to say is the 13 capacity markets in place to augment revenues from 14 energy and ancillary services markets to provide enough capacity to attract entry as needed. 15 16 And that's correct, right? Ο. 17 Α. Yes. 18 All right. Now, PJM has adopted some Ο. 19 changes in capacity market design, correct? 20 Α. Many changes, yes. 21 Ο. And some of those changes are under the 22 banner of capacity performance? 23 Α. Yes. 24 And these rules call for generation Ο. 25 providers to provide a firm supply of fuel and be

4577 1 subject to nonperformance charges if they fail. 2 Α. Yes. Firm fuel or dual fuel, yes. 3 It also calls for a change in the offer Q. 4 cap --5 Α. Yes, it did. -- as a different higher percentage of 6 Ο. 7 net CONE. 8 Α. Yes. It also calls for making the costs of 9 Ο. 10 fuel storage or pipeline capacity to be part of net 11 CONE. 12 Α. That is a change that's probably coming, 13 yes. 14 All right. Now, the reason for that Q. 15 proposal is that the cost to arrange for fuel storage 16 or pipeline capacity are potential new costs that 17 have become part of a generator's permanent cost 18 structure. 19 Potentially so. I'm not sure there's a Α. 20 specific proposal for how to do that yet and, of 21 course, capacity performance also results in reliable 22 generation actually earning some of the penalties paid by other capacity, so we are not really sure 23 24 what's going to happen in net CONE under capacity 25 performance.

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| 1  | Q. That wasn't my question. My question is            |
| 2  | the reason why it is included in that CONE is because |
| 3  | these type of costs are going to become part of       |
| 4  | generators' costs structure on a permanent basis.     |
| 5  | A. Yes.   |
| 6  | Q. Now, you believe that capacity prices and          |
| 7  | natural gas prices have some relationship, correct?   |
| 8  | A. Indirect, but, yes, they can.                      |
| 9  | Q. And that there they are probably                   |
| 10 | negatively correlated.                                |
| 11 | A. Yes.   |
| 12 | Q. But you could envision some circumstances          |
| 13 | where they could move in the same direction, correct? |
| 14 | A. Sure. You can always construct                     |
| 15 | something, yes.                                       |
| 16 | Q. Okay. It could be a situation where you            |
| 17 | have a PJM rule like capacity performance which would |
| 18 | put upward pressure on capacity prices and at the     |
| 19 | same time have an event in the natural gas market     |
| 20 | that would cause natural gas prices to increase; that |
| 21 | scenario could happen, correct?                       |
| 22 | A. Two completely different things happening          |
| 23 | at the same they could both go the same direction,    |
| 24 | okay?   |
| 25 | Q. That's correct.                                    |
|    |   |

| 1  | A. Yes.   |
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| 2  | Q. Now, would it also be fair to say that             |
| 3  | capacity costs for baseload units are generally       |
| 4  | greater than the costs for cycling units?             |
| 5  | A. Okay. Now I think you are talking about            |
| 6  | fixed costs.  |
| 7  | Q. Yes.   |
| 8  | A. Because we're not we don't want to                 |
| 9  | confuse capacity and capacity prices with plant fixed |
| 10 | costs. Yes, baseload plants typically are plants      |
| 11 | with higher fixed and lower variable costs and        |
| 12 | peaking plants tend to be plants with lower fixed and |
| 13 | higher variable costs.                                |
| 14 | Q. Thank you. You anticipated my next                 |
| 15 | several questions. And so for peaking units, most of  |
| 16 | the generation cost recovery comes from capacity      |
| 17 | revenue.  |
| 18 | A. A higher fraction, yes.                            |
| 19 | Q. And baseload units are more reliant on             |
| 20 | energy prices than peaking units with respect to      |
| 21 | total cost recovery.                                  |
| 22 | A. A higher fraction, yes.                            |
| 23 | Q. In a market with an increasing number of           |
| 24 | units with lower or zero marginal costs, there will   |
| 25 | be downward pressure on energy prices.                |
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4580 1 Well, other things being equal and in Α. 2 certain hours, that could be the case but, you know, 3 everything -- everything adapts. 4 Ο. All right. 5 Α. Everything adjusts around those resources, so it's difficult to make those kind of 6 7 simple statements. 8 Holding everything else equal, you would Ο. 9 agree. 10 But I can't hold everything else Α. Yeah. equal because when you bring those resources on, 11 12 other resources are going to adjust, so but, yes, if 13 you hold everything else equal, which is unrealistic, 14 yes. All right. And you would agree -- you 15 Q. 16 would agree that wind and solar units don't run 17 predominantly at peak. 18 Well, solar runs during the day which is Α. 19 the peak hours. The hours of the day, wind, it's 20 going to vary by location whether it runs more day or 21 peak or off peak. That's going to vary by location. 22 MR. KUTIK: May I approach, your Honor? 23 EXAMINER PRICE: You may. 24 Mr. Wilson, I took your deposition on May Ο. 26, 2015, correct? 25

| 1  | A. Yes.   |
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| 2  | Q. Let me refer you to page 79 of your                |
| 3  | deposition on that day. Did you not answer the        |
| 4  | following question the following way starting on line |
| 5  | 17, "Question: And is it your testimony that looking  |
| 6  | at PJM data, we would see that wind or solar plants   |
| 7  | run predominantly at peak periods?                    |
| 8  | "Answer: Predominantly at peak? No,                   |
| 9  | they don't run predominantly at peak." That was your  |
| 10 | deposition testimony, was it not?                     |
| 11 | A. Yes. After quite a bit of conversation             |
| 12 | of what we were talking about for peak and other      |
| 13 | related issues.                                       |
| 14 | Q. Okay. Would it be fair to say that low             |
| 15 | marginal units that run mostly at nonpeak would       |
| 16 | potentially have a price suppression effect that      |
| 17 | would fall mostly on baseload units rather than other |
| 18 | types of units?                                       |
| 19 | A. I think you wanted to ask low marginal             |
| 20 | costs?  |
| 21 | Q. Yes.   |
| 22 | A. Yes, that could be the case.                       |
| 23 | Q. Now, with respect to renewable energy              |
| 24 | mandates, would it be fair to say that they have had  |
| 25 | the effect to cause more renewable energy resources   |

4582 to come into the market than they otherwise would 1 2 have? 3 That's their intent, so unless they are Α. 4 totally ineffective, yes. 5 0. Thank you. Now, the same would be true with respect to federal or state tax credits that 6 7 renewable energy facilities might be eligible for. 8 Α. Yes. 9 Ο. And you would agree with me that you 10 could call either these mandates or these tax credits as a form of subsidy. 11 12 Α. Yes. 13 EXAMINER PRICE: Next time we have a 14 hearing, I am going to put in the dictionary portfolio standards instead of mandates. 15 16 MR. KUTIK: Your Honor, may I have a 17 minute, please? 18 EXAMINER PRICE: You may. 19 MR. KUTIK: I have no further questions 20 at this time. 21 EXAMINER PRICE: Thank you. Mr. McNamee? 22 MR. McNAMEE: No questions. MR. KURTZ: I do have 5 minutes. 23 24 EXAMINER PRICE: Mr. Kurtz. 25 MR. KURTZ: Thank you. Sorry, everyone.

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| 2  | CROSS-EXAMINATION                                     |
| 3  | By Mr. Kurtz:   |
| 4  | Q. Can you turn to your supplemental                  |
| 5  | testimony page 23. And let me know when you are       |
| 6  | there, Mr. Wilson.                                    |
| 7  | A. Yes.   |
| 8  | Q. Okay. Let me just read this brief                  |
| 9  | section, line 13, question 34, "Dr. Makovich asserts  |
| 10 | that the Economic Stability Program is not a subsidy. |
| 11 | Is he correct on this answer?"                        |
| 12 | "No. It absolutely would be a subsidy to              |
| 13 | these specific plants. It would be an out-of-market   |
| 14 | payment and revenue guarantee to specific resources.  |
| 15 | Dr. Makovich does not propose to offer the program to |
| 16 | the thousands of megawatts of other similarly         |
| 17 | situated resources in the market." Did I read that    |
| 18 | correctly?  |
| 19 | A. Yes.   |
| 20 | Q. Okay. The out-of-market payment and the            |
| 21 | revenue guarantee is essentially the cost of service  |
| 22 | structure of the purchase power agreement here; is    |
| 23 | that correct?   |
| 24 | A. Well, there it's net of market                     |
| 25 | revenues but  |

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| 1  | Q. Well, that's the rider, but as to FES,             |
| 2  | you are referring to the cost-of-service structure of |
| 3  | the agreement between the utility and FES.            |
| 4  | A. Okay. Yes.   |
| 5  | Q. Is that right?                                     |
| 6  | A. Yes.   |
| 7  | Q. Okay. In your opinion is it your opinion           |
| 8  | that cost-of-service generation is prohibited from    |
| 9  | participating in the PJM energy capacity markets?     |
| 10 | A. No.  |
| 11 | Q. Okay. Do you know if Virginia is in PJM?           |
| 12 | A. They are.  |
| 13 | Q. Do you know how many thousands of                  |
| 14 | megawatts of rate-based cost-of-service generation in |
| 15 | Virginia participates in the PJM energy and capacity  |
| 16 | markets?  |
| 17 | A. I don't but Dominion is a pretty large             |
| 18 | zone. It might be 20,000 megawatts. I don't know.     |
| 19 | Q. Do you know how many megawatts of cost of          |
| 20 | service generation in West Virginia participates in   |
| 21 | the PJM markets?                                      |
| 22 | A. I don't know the quantity, no.                     |
| 23 | Q. Okay.  |
| 24 | A. It's much smaller.                                 |
| 25 | Q. I am sure it is. Same question as to the           |
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| 1  | Indiana, do you know how many megawatts participate?  |
| 2  | A. I don't know but there is some, yes.               |
| 3  | Q. What about the cost-of-service megawatts           |
| 4  | in Kentucky that participate in the PJM markets?      |
| 5  | A. Yes.   |
| 6  | Q. Do you know?                                       |
| 7  | A. I think it's around 1 or 2 thousand, yes.          |
| 8  | Q. Would it be Kentucky Power, East Kentucky          |
| 9  | Power Cooperative, and Duke Kentucky, correct?        |
| 10 | A. Sounds right, yes.                                 |
| 11 | Q. Same question with cost-of-service                 |
| 12 | megawatts in Michigan, do you know the amount?        |
| 13 | A. I don't.   |
| 14 | Q. Okay. Do you know how many megawatts of            |
| 15 | cost-of-service rate-based generation located in MISO |
| 16 | participates in the PJM energy and capacity markets?  |
| 17 | A. In MISO rate-based participate selling             |
| 18 | in as an import or?                                   |
| 19 | Q. Yes, import with firm transmission,                |
| 20 | telemeter, all the requirements.                      |
| 21 | A. There are imports. I don't know the                |
| 22 | status of the generation behind it.                   |
| 23 | Q. Do you know if this Commission has                 |
| 24 | approved cost-of-service renewable contracts for the  |
| 25 | utilities here?                                       |
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| 1  | A. I don't know. I suppose they may have,             |
| 2  | yes.  |
| 3  | Q. Okay. Do you know if under the Revised             |
| 4  | Code 4928.143(B)(2)(b) a utility distribution         |
| 5  | utility can get a cost-based return for construction  |
| 6  | work in progress on a power plant that they may be    |
| 7  | building?   |
| 8  | A. I would have I would have to take your             |
| 9  | word for that.  |
| 10 | Q. Do you know if under (B)(2)(c) a                   |
| 11 | distribution utility can get cost-of-service recovery |
| 12 | for the on a nonbypassable basis for the cost of      |
| 13 | owning and operating a power plant that is dedicated  |
| 14 | to Ohio consumers?                                    |
| 15 | A. I don't know.                                      |
| 16 | Q. Were you aware of that?                            |
| 17 | A. No.  |
| 18 | MR. KURTZ: Okay. Thank you, your Honor.               |
| 19 | EXAMINER PRICE: Thank you.                            |
| 20 | Ms. Willis, redirect?                                 |
| 21 | MS. WILLIS: Yes, your Honor. We would                 |
| 22 | like a brief period of time.                          |
| 23 | EXAMINER PRICE: Let's go off the record.              |
| 24 | (Recess taken.)                                       |
| 25 | EXAMINER PRICE: Let's go back on record.              |
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| 1  | Ms. Willis.   |
| 2  | MS. WILLIS: Thank you, your Honor.                    |
| 3  |   |
| 4  | REDIRECT EXAMINATION                                  |
| 5  | By Ms. Willis:  |
| 6  | Q. Mr. Wilson, good evening. And we are               |
| 7  | going to try to finish this up very quickly. I want   |
| 8  | to direct your attention to two of the exhibits that  |
| 9  | were used during counsel's cross-examination of you   |
| 10 | and those would be Exhibits 60 and 61. Do you have    |
| 11 | those in front of you?                                |
| 12 | A. I do.  |
| 13 | Q. Okay. Let's go to Exhibit 60. Exhibit              |
| 14 | 60 counsel directed your attention to page CP-12.     |
| 15 | Can you get to that page, please.                     |
| 16 | A. Yes.   |
| 17 | Q. Now, specifically counsel directed your            |
| 18 | attention to a statement under the prices that says   |
| 19 | through 2025 the AEO 2014 reference case has the      |
| 20 | second lowest projected Henry Hub prices after IHSGI. |
| 21 | Do you see that sentence?                             |
| 22 | A. Yeah. It was through 2025, yes.                    |
| 23 | Q. Through 2025, thank you. Has has EIA               |
| 24 | further updated their near-term update for natural    |
| 25 | gas?  |

4588 1 Α. Yes, they have. 2 And do you have any -- do you have that Ο. 3 information before you? 4 Α. Yes. 5 MR. KUTIK: Objection, your Honor. Grounds? 6 EXAMINER PRICE: 7 MR. KUTIK: Your Honor, we asked about 8 2014 and what's in the 2014 report. We didn't ask 9 about any updates. So it's beyond the scope of 10 cross. 11 EXAMINER PRICE: Ms. Grady. 12 MS. WILLIS: Your Honor, it is well 13 within the scope of the cross-examination. That 14 was -- this was specifically what he asked. It's a 15 counter to that; and, in fact, the updated is 16 contained in Company Exhibit 61 which we were just 17 going to get to. 18 EXAMINER PRICE: I'll allow it. 19 MS. WILLIS: Thank you. 20 I'm sorry. Do you have -- there was a 21 question pending and an answer? I'm not sure. 22 EXAMINER PRICE: There must have been a 23 question pending. Can we have the last question 24 back, please. 25 (Record read.)

4589 And, Mr. Wilson, can you identify where 1 Ο. 2 that information is found? 3 I think we're talking about Exhibit 61, Α. 4 Table 2, which is about maybe 60 percent of the way 5 through the document. Would that be entitled "Table 2 Energy 6 Ο. 7 Prices U.S. Energy Information Administration 8 Short-Term Energy Outlook, September, 2015"? 9 Α. Yes. And within that Table 2 can you direct my 10 Ο. 11 attention to where the natural gas updates would be? 12 Α. Yes. About two-thirds of the way down 13 you have natural gas, and if you go over to the -- I 14 go to the far columns which are annual rather than 15 quarterly and you see -- and they are in both dollars 16 per thousand and dollars per million. They are 17 roughly the same, but 2014 was 4.52 per thousand 18 cubic feet dropping to this update had \$2.93 for 2015 19 and expecting \$3.20 for 2016. And those are, of 20 course, way down from earlier projections by EIA. 21 Ο. Okay. Now, counsel for the company, also 22 going back to Company Exhibit 60, directed your 23 attention to MT-22. Can you pull to that, please. 24 Α. Yes. 25 Q. And in particular counsel directed your

attention to Figure MT-41. Do you recall those 1 2 questions? 3 Α. Yes. 4 And, in fact, counsel asked you whether Ο. 5 or not you had utilized the high oil and gas resource as part of your analysis. Do you recall that? 6 7 Α. That's correct. 8 Can you tell me how that high oil and gas Ο. 9 resource compares to the EIA projections shown on Exhibit 61? 10 That high oil and gas resource case 11 Α. Yes. 12 is, of course, the lowest of the various projections. 13 But EIA's update now is even lower than the high oil 14 and gas resource case so if those prices are never below maybe about \$3.50. Of course, EIA's projection 15 16 now is \$3 for 2015 and 3.20 for 2015, so their latest 17 projection is even below the high oil and gas 18 resource projection. 19 Okay. Again, that high oil and gas Q. 20 resource projection was used in your analysis that 21 you presented before the Commission. 22 Α. Yes. 23 Ο. Okay. Now, counsel at some point this 24 afternoon asked you about whether you're familiar 25 with CRES contracts. Do you recall those questions?

1 Α. Yes. 2 Ο. And what was your response at that time? 3 That I was familiar with the terms of one Α. 4 such arrangement, the arrangement between NOPEC and 5 FES. And can you explain to me what your 6 Ο. 7 familiarity is with that arrangement? 8 Yeah. My understanding it was a Α. 9 nine-year contract initiated in the end of 2010, 10 early 2011 and that it's pegged to the price to 11 compare with residential customers getting 4 --12 6 percent and commercial customers getting 4 percent 13 off of the price to compare for a full 14 requirements-type contract. 15 MS. WILLIS: Okay. Your Honors, that's 16 all the questions I have. Thank you, Mr. Wilson. 17 EXAMINER PRICE: I just want to clarify 18 one thing about the line of questions with your 19 The short-term energy outlook prices only counsel. 20 update through 2015; is that right? THE WITNESS: It provides a number for 21 22 2016 also. 23 EXAMINER PRICE: Oh, it does? Okay. 24 Thank you. 25 Mr. Mendoza?

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

4592 1 MR. MENDOZA: No questions, your Honor. EXAMINER PRICE: Mr. Kutik? 2 3 MR. KUTIK: May I have a minute, your 4 Honor? 5 EXAMINER PRICE: You may. 6 7 RECROSS-EXAMINATION 8 By Mr. Kutik: 9 Ο. Mr. Wilson, isn't it true that you never reviewed the NOPEC contract? 10 11 The contract itself, no. Α. 12 Q. Okay. And you don't know its price terms. 13 Yes, I do. 14 Α. Well, you didn't know it at your 15 Q. 16 deposition, sir, did you? 17 Α. I don't recall. 18 Q. All right. 19 I think probably did not, yes. Α. 20 Okay. And, in fact, you didn't know what Q. 21 the term "price to compare" meant. 22 Α. I don't recall. Okay. And since you haven't seen the 23 Ο. 24 contract you don't know whether it has 25 confidentiality provisions in it, do you?

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| 1  | A. I believe I saw a press release about it.          |
| 2  | Q. All right. My question to you is do you            |
| 3  | know whether it had confidentiality provisions in it? |
| 4  | A. I don't know that but                              |
| 5  | Q. All right. So do you know whether what             |
| 6  | you've just said violates the confidentiality         |
| 7  | provisions?   |
| 8  | EXAMINER PRICE: Wait a second. In all                 |
| 9  | fairness he had not completed his prior answer.       |
| 10 | MR. KUTIK: Fair enough, your Honor.                   |
| 11 | EXAMINER PRICE: If you have anything                  |
| 12 | else you would like to finish on your prior answer    |
| 13 | and then move on to                                   |
| 14 | THE WITNESS: I understood I was looking               |
| 15 | at a press release that described all of the          |
| 16 | provisions that I mentioned about the contract.       |
| 17 | Q. My question to you, sir, you haven't seen          |
| 18 | the confidentiality provision, correct?               |
| 19 | A. Correct.   |
| 20 | Q. You don't know whether what you've just            |
| 21 | said violates those confidentiality provisions then,  |
| 22 | fair to say?  |
| 23 | A. Well, no, because I believe I I mean,              |
| 24 | what I described was from a press release, a public   |
| 25 | document, I believe.                                  |
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| 1  | Q. You believe.                                      |
| 2  | A. Yes. That was my understanding.                   |
| 3  | Q. All right. And your understanding came            |
| 4  | from what you were told by counsel, correct?         |
| 5  | A. No, by the document I was provided by             |
| 6  | counsel.   |
| 7  | Q. All right. And your counsel told you it           |
| 8  | was a press release.                                 |
| 9  | A. It looked like a press release, yes.              |
| 10 | Q. So that was a deduction you made.                 |
| 11 | A. Yes.  |
| 12 | Q. So you don't know whether you violated            |
| 13 | the confidentiality provisions sitting here today,   |
| 14 | fair to say?   |
| 15 | A. I guess if that press release looking             |
| 16 | thing was a confidential document, I don't think it  |
| 17 | said anywhere on it that it was, but I don't know. I |
| 18 | guess.   |
| 19 | Q. You don't know. You guess. Isn't it               |
| 20 | true I think you mentioned in question to the        |
| 21 | attorney examiner that the STEO, Short-Term Energy   |
| 22 | Outlook, went through 2016, correct?                 |
| 23 | A. Yes.  |
| 24 | Q. And isn't it true that the EIA has                |
| 25 | natural gas price forecasts that are higher in for   |
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4595 1 certain years -- strike that. 2 Isn't it true that for the period of from 3 2015 to 2031 the updated AEO from 2015 has years 4 where the 2015 natural gas price projections are 5 higher than the 2014 AEO? MS. WILLIS: Objection. 6 7 EXAMINER PRICE: Grounds? 8 MS. WILLIS: It's beyond the scope 9 redirect. 10 EXAMINER PRICE: Opened the door. 11 Overruled. 12 Α. There were a few years when the AEO 2015 13 was higher. 14 Okay. Well, sir, are you aware that Q. using the AEO data one can make graphs of various 15 16 projections? 17 Α. I have done so. 18 MR. KUTIK: All right. May I approach? 19 EXAMINER PRICE: You may. 20 MR. KUTIK: Your Honor, I would like to 21 have marked as Company Exhibit 65 a document entitled 22 "EIA Forecast of U.S. Natural Gas Prices." EXAMINER PRICE: It will be so marked. 23 24 (EXHIBIT MARKED FOR IDENTIFICATION.) 25 Q. Mr. Wilson, you have seen graphs of this

4596 1 type before at the EIA database. 2 Α. I have made graphs like this, yes. You 3 don't find those graphs in the database, no. 4 You've created graphs like this. Ο. Α. 5 Yes. All right. And would this graph 6 Ο. 7 accurately depict the relationship between the 2015 AEO reference case and the 2014 AEO reference case 8 9 for natural gas prices using nominal dollars? 10 MS. WILLIS: Objection. EXAMINER PRICE: Grounds? 11 12 MS. WILLIS: Your Honor, this -- he has not laid a foundation for this document and it is 13 14 hearsay. 15 EXAMINER PRICE: The witness relied upon 16 both the -- referenced -- relied upon 2014 AEO 17 reference case and referenced in his testimony that 18 he reviewed the 2015 reference case. I think there 19 is plenty of foundation. 20 MS. WILLIS: But he did not plot graphs, 21 and he cannot testify as to the accuracy of the 22 plotting of these points on the graph. 23 MR. KUTIK: He hasn't said one way or the 24 other, your Honor. All I asked him was does this 25 accurately depict it. He can say "yes," or he can

4597 1 say "no." 2 Α. I'm not sure but it may be. 3 Do you think it generally shows the Ο. 4 relationship? 5 Α. Well, I remember it had that different shape and that there were periods -- I mean, the 6 7 critical period of 2015 to 2020, the new one is lower 8 but then it's slightly higher after that. I think 9 generally it may have had that relationship. 10 MR. KUTIK: Thank you. May we have a 11 minute, your Honor? 12 EXAMINER PRICE: Counsel had a pending 13 objection, but it's moot now. 14 MR. KUTIK: That's all I have, your 15 Honor. Thank you. 16 EXAMINER PRICE: Mr. McNamee? Mr. Kurtz? I'm sorry. 17 18 MR. KURTZ: Nothing, your Honor. 19 EXAMINER PRICE: Mr. McNamee? 20 MR. MCNAMEE: No. 21 EXAMINER PRICE: Ms. Addison? 22 Ms. Willey? 23 I hate to do this to you. 24 THE WITNESS: Please. 25 EXAMINER PRICE: But I keep asking

4598 witnesses in this proceeding and nobody can help me. 1 2 Assuming that the company -- and if this is 3 confidential, tell me. Assuming that your projection 4 is correct for prices, what is the total expenditure 5 expected by consumers over the course of the proposed transaction within the FirstEnergy service territory? 6 7 THE WITNESS: Okay. I mean, I had three 8 scenarios. 9 EXAMINER PRICE: Let's use your -- your 10 primary scenario. 11 THE WITNESS: Okay. And I updated those 12 scenarios with new data in May. 13 EXAMINER PRICE: I'll take any -- I'll 14 take any information. Well, your Honor, I will 15 MR. KUTIK: 16 object to that, the question about updates, 17 especially coming at this stage in the proceeding. 18 EXAMINER PRICE: Okay. We will roll it 19 back to your initial projections. 20 THE WITNESS: Okay. I think one of them was 3 billion. 21 22 EXAMINER PRICE: That's not the question 23 I am asking. 24 THE WITNESS: Okay. 25 EXAMINER PRICE: My issue is your claim

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| 1  | is that the PPA is going to cost consumers X dollars. |
| 2  | I want to stay away from confidentiality. Right?      |
| 3  | THE WITNESS: Okay.                                    |
| 4  | EXAMINER PRICE: What's lost what the                  |
| 5  | record is not clear is X billion dollars of out of    |
| 6  | what? So you say it's going to cost consumers \$3     |
| 7  | billion you just said. What's their total spend?      |
| 8  | Does it cost them \$3 billion dollars out of 13       |
| 9  | billion? 20 billion? 30 billion?                      |
| 10 | THE WITNESS: Okay. I guess I don't have               |
| 11 | that number handy. I could try to do it back of the   |
| 12 | envelope. It would sound small. It would sound        |
| 13 | small.  |
| 14 | EXAMINER PRICE: It would sound small?                 |
| 15 | THE WITNESS: Well, yeah. You take a big               |
| 16 | number, but you divide it by a much larger number,    |
| 17 | and you could divide it by the Ohio economy and it    |
| 18 | would sound small and I don't know what their total   |
| 19 | spend over the period is, but it would be a lot       |
| 20 | larger than that.                                     |
| 21 | EXAMINER PRICE: 10 times? 20 times                    |
| 22 | larger?   |
| 23 | THE WITNESS: I would have to at least                 |
| 24 | try to do a back of the envelope calculation.         |
| 25 | EXAMINER PRICE: Okay. Fair enough.                    |
|    |   |

4600 Okay. You're excused. 1 2 Ms. Willis. 3 MS. WILLIS: Yes, your Honor. OCC moves 4 for the admissions of Exhibit 4, 5, and 6C. 5 EXAMINER PRICE: Any objection to the admission of Exhibits 4, 5, and 6 Confidential? 6 7 MR. KUTIK: Subject to your rulings on 8 the motion to strike, your Honor, no. EXAMINER PRICE: Subject to the rulings 9 on the motion to strike, they will be admitted. 10 11 (EXHIBITS ADMITTED INTO EVIDENCE.) 12 MS. WILLIS: Your Honor, those are joints 13 exhibits. I referred to them as OCC. EXAMINER PRICE: I understand. 14 15 MS. WILLIS: Thank you. 16 EXAMINER PRICE: Mr. Kutik. 17 MR. KUTIK: Your Honor, at this time we 18 offer Company Exhibits 58, 59, 60, 61, 63, and 65. EXAMINER PRICE: Just to make clear you 19 20 have offered 58, 59, 60, 61, 63, and 65; is that 21 correct? 22 MR. KUTIK: Yes, your Honor. EXAMINER PRICE: Any objections to the 23 24 admission of those exhibits? 25 MS. WILLIS: Your Honor, with respect to

4601 1 two of those exhibits we do have objections. 2 EXAMINER PRICE: Okay. Tell me the ones 3 you don't object to. Tell me the ones you do object 4 to. 5 MS. WILLIS: We do object to -- the first The second one is going to be 59. 58 --6 one is 58. 7 EXAMINER PRICE: Wait. Stop. Stop. 8 Okay. At this time then we will admit Company Exhibits 60, 61, 63, and 65. 9 10 (EXHIBITS ADMITTED INTO EVIDENCE.) 11 EXAMINER PRICE: Now, we will take your 12 arguments as to Company Exhibit 58. 13 MS. WILLIS: Yes, your Honor. This 14 exhibit was the contract for legal services between OCC/NOPEC and Mr. Wilson. It is not relevant. 15 16 Relevant evidence is evidence that has the tendency 17 to make the existence of any fact that is of 18 consequence to the determination of the action more 19 probable. There is nothing that -- there is no fact 20 that this is related to that it is of consequence to 21 the issues being determined in this -- in this 22 proceeding. So I believe on grounds of relevance it should not come in. 23 24 EXAMINER PRICE: Mr. Kutik. 25 MR. KUTIK: Your Honor, she made the same

4602 argument with respect to Mr. Effron's contract. 1 It's 2 relevant to the issue of the fact of what budget he 3 was under and what he did and that he also felt that 4 what he -- when he -- the budget he was under was not 5 a constraint in terms of what he needed to do. MS. WILLIS: And, again, that issue, the 6 budget, whether the budget he was under constrained 7 8 his work is of no -- has no consequence to the 9 determination of issues in this proceeding. It is 10 not relevant. MR. KUTIK: It goes to the diligence and 11 12 work of the witness and whether it should be relied 13 upon. 14 EXAMINER PRICE: Consistent with our 15 prior ruling that exhibit will be admitted. 16 (EXHIBIT ADMITTED INTO EVIDENCE.) 17 EXAMINER PRICE: 59. 18 MS. WILLIS: 59, your Honor, is the 19 invoices of that -- that Mr. Wilson exchanged with 20 the Office of Consumers' Counsel. Again, it is not 21 relevant. It is not -- it does not go to anything 22 that is of consequence to the issues being determined 23 in this proceeding. 24 EXAMINER PRICE: Mr. Kutik. 25 MR. KUTIK: This shows exactly what he

4603 did, your Honor, in terms of his work product and 1 2 obviously allows us to argue whether he was diligent 3 and whether he provided -- he provided a detailed 4 analysis or not. The fact that he was already 5 talking to his lawyers and organizing his thoughts after five hours we should be able to argue that is 6 7 bias and he is a biased witness for an important 8 client of his that brings in a lot of revenue. Those 9 are all arguments relating to his bias and his credibility. 10 EXAMINER PRICE: I agree. The exhibit 11 12 will be admitted. 13 (EXHIBIT ADMITTED INTO EVIDENCE.) 14 EXAMINER PRICE: Anything else before we 15 qo off the record? 16 Okay. We will adjourn at this time. We 17 will reconvene on --18 MR. McNAMEE: With which witness? 19 EXAMINER PRICE: We will reconvene Monday 20 at 10 o'clock. Let's go off the record. 21 (Discussion off the record.) 22 (Thereupon, at 6:38 p.m., the hearing was adjourned.) 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 this Friday, October |      |
| 5  | 2nd, 2015, and carefully compared with my original |      |
| 6  | stenographic notes.                                |      |
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| 12 | Karen Sue Gibson, Registered<br>Merit Reporter.    |      |
| 13 | (KSG-6)  |      |
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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 10/02/15 - Volume XXII electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.