BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

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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 Tuesday, October 6, 2015.

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VOLUME XXIV

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

Tuesday Morning Session,

October 6, 2015.

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EXAMINER CHILES: The Public Utilities

Commission of Ohio has called for hearing at this

time and place Case No. 14-1297-EL-SSO being In the

Matter of the Application of Ohio Edison Company, the

Cleveland Electric Illuminating Company, and, the

Toledo Edison Company for Authority to Provide for a

Standard Service Offer pursuant to Revised Code

4928.143 in the Form of an Electric Security Plan.

My name is Mandy Chiles, and with me is

Gregory Price and Megan Addison, and we are the

attorney examiners assigned by the Commission to hear

this case. We will waive appearances from the

attorneys, but would anyone like to enter an

appearance this morning?

MR. MAYES: I would like to enter an appearance. I'm Jeffrey Mayes, general counsel for Monitoring Analytics, acting in the capacity of the Independent Market Monitor for PJM.

EXAMINER CHILES: Thank you.

MR. O'DONNELL: Terrence O'Donell with Dickinson Wright representing Mid-Atlantic Renewable Energy Coalition.

4868 1 MR. BURCAT: Bruce Burcat with 2 Mid-Atlantic Renewable Energy Companies. 3 EXAMINER CHILES: Thank you. 4 Are we ready to proceed this morning? 5 MR. STINSON: Yes, your Honor. OCC and NOPEC would call Dr. Kahal. 6 7 (Witness sworn.) 8 (EXHIBIT MARKED FOR IDENTIFICATION.) 9 10 MATTHEW KAHAL being first duly sworn, as prescribed by law, was 11 12 examined and testified as follows: 13 DIRECT EXAMINATION 14 By Mr. Stinson: Mr. Kahal, would you please state your 15 16 full name and business address for the record. 17 Α. Yes. My name is Matthew Kahal. That's 18 spelled K-A-H-A-L. Business address is 1108 Pheasant 19 Crossing, Charlottesville, Virginia 22901. 2.0 I've placed before you your direct Q. 2.1 testimony, which is marked OCC/NOPEC Exhibit 7. 22 you have that? 23 I have my own copy. Α. 24 Ο. You can use your own copy. 25 Α. Okay. Thank you. Yes, I have the direct

1 testimony.

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- Q. And was your direct testimony prepared by you or under your direct supervision?
 - A. Yes, it was prepared by me.
- Q. And do you have any additions, deletions, or corrections to that direct testimony?
- A. I have one deletion to that direct testimony.
 - Q. Can you describe that, please?
 - A. Yes. That's at page 28. There's -- at page 28 there's a footnote No. 20, and that footnote is to be deleted. That's the only change to the direct testimony I have.
 - Q. Thank you. If I were to ask you the same questions in your direct testimony, would your answers, as amended, be the same?
- 17 A. Yes.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. You also have before you your supplemental direct testimony which has been marked as OCC and NOPEC Exhibit 8.
 - A. Yes, I have that.
- Q. And was that testimony prepared or was
 that supplemental direct testimony prepared by you or
 under your supervision?

- A. Yes, it was prepared by me.
- Q. Do you have any additions, deletions, or corrections to that testimony.
 - A. Yes, there are a couple of deletions.
 - O. Go ahead.

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A. At page 29 of that testimony, the sentence at line 4 that states "In addition" and goes through line 5. That sentence is to be deleted.

In addition on that page, along with the deletion of that sentence, the referenced footnote at line -- excuse me -- that's numbered 33, that footnote is to be deleted as well.

- Q. Do you have any other corrections?
- A. Yes. At page 37, at line number 14, the sentence that begins "Witness Sioshansi" and that sentence concludes at line 17, that sentence is to be deleted.
- Q. Thank you. If I were to ask you the same questions in your supplemental direct testimony, would your answers, as amended, be the same?
 - A. They would.

MR. STINSON: At this time, your Honor, I move the admission of OCC and NOPEC Exhibit 7 and 8 subject to cross.

25 EXAMINER CHILES: Thank you. We will

4871 defer ruling on those exhibits. At this time we will 1 2 proceed with cross-examination. 3 Before we proceed with cross-examination, do we have any motions? 4 Mr. O'Donnell? 5 MR. O'DONNELL: No questions. 6 7 EXAMINER CHILES: Mr. Mendoza? 8 MR. MENDOZA: No questions, your Honor. 9 EXAMINER CHILES: Mr. Kurtz? 10 MR. KURTZ: If I could go after the 11 company, please, your Honor. 12 EXAMINER CHILES: Sure. 13 Mr. Kutik. 14 MR. KUTIK: Thank you, your Honor. 15 16 CROSS-EXAMINATION 17 By Mr. Kutik: 18 Good morning, sir. Q. 19 Α. Good morning. 2.0 Q. Would you agree with me that the energy 2.1 industry has undergone some changes in last five to 22 ten years? 23 Α. Yes. 24 I want to talk to you a little bit about 25 your experience. Your last teaching position was

4872 around 1980. 1 2 Α. That's correct. 3 And both of your teaching positions were Q. 4 nontenured track, correct? 5 Α. Yes, instructor-type positions. Thank you. And your last publication was 6 Ο. 7 in 2008? 8 Α. Yes. 9 And your last conference presentation was 10 in 2004? 11 I think that's right, yes. 12 Q. And the last case involving an electric 13 utility before your recent SSO cases in Ohio was 1988? 14 15 Α. Oh, I'm sorry. Did you mean my last case 16 in Ohio? 17 Yes, other than the SSO cases. 18 I think that's right, yes, other than the Α. 19 three SSO cases that I've done within, I quess, the 20 last two years. 2.1 Now, you haven't done any studies of the 22 Ohio retail electric market, correct? 23 Α. That's right. 24 And you haven't reviewed the PUCO website

regarding shopping information, correct?

- A. No. I mean, I've seen some shopping statistics, but no, I haven't gone on the website to do any kind of a systematic-type search, which I think that's what you're talking about.
- Q. Yes, it is. So your answer would be no, you haven't done that?
- A. Oh, I have not, that's right. In the sense that you're talking about, I think.
- Q. Yes. And you haven't done any study of the Ohio economy, correct?
 - A. Recently, no.

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- Q. Now, you would not consider yourself an expert on the design of a distribution system, correct?
- A. That's right. I'm not an engineer, and I would consider that to be an engineering task.
- Q. And, similarly, you would not consider yourself an expert on planning system improvements.
- A. Only the economic aspects, not the engineering aspects.
- Q. And, similarly, with respect to the engineering aspects of making judgments about repairing and replacing an engineering system, you wouldn't consider yourself an expert on that?
 - A. That's right, not on the engineering

1 aspect, you're correct.

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- Q. But you do know something about the PJM market, correct?
 - A. Yes.
- Q. And would you agree with me that PJM has on the order of 200,000 megawatts of capacity resources?
- A. That's a rough ballpark number. I believe that's in the ballpark of the amount of capacity in PJM.
- Q. And 80 to 90 percent of that is in-ground capacity?
 - A. Yeah. In-ground meaning physical capacity, yes, that sounds about right.
 - Q. There are areas within PJM that are nonretail choice areas, correct?
- 17 A. There are.
 - Q. And there are vertically integrated utilities that provide generation and distribution service to customers in those areas, correct?
- A. That's right. It's not the majority, but those areas within PJM do exist.
 - Q. And these utilities offer their generation into the PJM capacity market, correct?
- A. As far as I know, I believe that's

correct. I haven't verified that, but that's my understanding of the way they normally operate.

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- Q. And this amount of generation comprises about 15 to 20 thousand megawatts.
- A. It may be more than that. I mean, that would be ballpark. It might be as much as 30,000, but that's, you know, a rough, rough estimate.
- Q. And you know that a FirstEnergy affiliate owns regulated generation in PJM, correct?
 - A. FirstEnergy affiliate? Subsidiary?
 - Q. A subsidiary of FirstEnergy Corp.
- A. Yes, a subsidiary of the FirstEnergy Corp., I think we're talking about Mon Power.
- Q. Now, within PJM, you would agree with me that the overwhelming percentage of retirements in the last few years have been retirements of generation plants that have been coal-fired, correct?
- A. Yes, certainly in terms of the number of megawatts, yes.
- Q. And the overwhelming percent of generation additions have been gas-fired, correct?
 - A. Yes. Again, in terms of megawatts, yes.
- Q. Now, I want to talk to you about two developments in the PJM market since you filed your testimony. One of those is the capacity performance

rules. You're aware of those, right?

A. Yes.

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- Q. And you would agree with me that those rules have had and will likely have the effect of increasing capacity prices?
 - A. Yes.
- Q. Another development has been the Clean Power Plan, you're aware of that?
- A. Yes, the final rule -- I can't remember the date when it was issued, but I think it was over the summer.
- Q. Yes. And you would agree with me that all else equal, the Clean Power Plan will tend to increase natural gas prices by increasing demand for natural gas.
- A. As compared to not having the Clean Power Plan, if it didn't exist, yes.
 - Q. Now, you are also aware, are you not, that FERC has rules or tariffs that deal with market manipulation, correct?
 - A. There are tariffs that govern behavior of generators in RTOs that are FERC jurisdictional tariffs. In terms of an actual rulemaking that the FERC has done that defines market manipulation, that I'm not so sure that there's an actual rule.

There's -- I think that there's an investigation of that now that's taking place in FERC where it's just beginning, but there are tariffs that govern the behavior of market participants.

- Q. And you're aware that there are tariffs that deal with the subject of market manipulation, correct?
- A. I don't know if it uses the term "market manipulation," but that certainly is related to market manipulation issues, if that's helpful.
- Q. And FERC has used its authority to impose fines to deter market manipulation, correct?
 - A. Punish and deter, yes.
 - Q. Now, I want to talk to you a little bit about rider RRS and the economic stability program that's been proposed by the companies.
 - A. Certainly.

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- Q. Would it be correct to say that you're not sure if the companies are seeking Commission approval of a PPA?
- A. I'm not 100 percent sure since I haven't actually seen the PPA.
- Q. And you would agree with me that rider
 RRS does not set the price that the companies would
 pay under a PPA, correct?

As the concept has been discussed, rider 1 Α. 2 RRS does not set the price. If a PPA goes forward, 3 is confected and is approved, presumably that's what 4 would set the price. 5 0. The PPA? 6 Α. Yes. 7 So the answer to my question was yes? Q.

Q. And you don't know if rider RRS would not dictate who would offer the plant's output into the PJM market?

MR. STINSON: Could I have that reread, please.

EXAMINER CHILES: You may.

(Record read.)

A. You phrased it as "would not," negative?

Q. Yes, I did.

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Α.

Yes.

A. My understanding is that rider RRS does not address that.

Q. Now, you believe, do you not, that the proposed transaction would be purely financial and not physical, correct?

A. That's my understanding as to the concept that's being proposed.

Q. And one of the reasons for that is that

the plant's output will not be used to displace the power procured for SSO load by the companies?

- A. That's correct, not only SSO load but also for shopping customers, it wouldn't displace their load either.
 - Q. You anticipated my next question.
 - A. Okay. Good.

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- Q. Now, the companies would have the right to audit FES's books. You understand that, correct?
- A. Yes. There are audit rights -- let me put it this way. It's a little hard to say that for sure because I haven't seen the contract. I have to rely on the proposed term sheet. Based upon the proposed term sheet, I believe that that's anticipated.
- Q. And the companies under the term sheet would also be consulted on capital projects, correct?
- A. There is a consultative process that's described in the term sheet for capital additions.
- Q. Now, you haven't done any modeling on the effect of rider RRS on wholesale energy or capacity markets in PJM, correct?
 - A. I have not modeled that, no.
- Q. And you have done no analysis on the amount of generation that would have to change its

behavior to affect capacity prices, correct?

A. That's correct.

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- Q. And you would agree with me that if customers receive a credit under rider RRS, rider RRS does not create a subsidy, correct?
- A. I have to clarify what you mean by customers receiving a subsidy -- a credit. If you mean this is anticipated to be 15 years, so if what you mean is they receive a net credit over the 15-year term, in other words, ratepayers are coming out ahead on this for the full 15 years of the PPA, assuming there is a PPA, then I would agree with the statement that you made. I assume that you didn't mean that, you know, if it was just one year.
- Q. Now, I want to talk to you about your evaluation of the ESP under the ESP versus MRO test.
 - A. Sure.
- Q. Now, it's your view that there is no ESP that should be approved by the Commission, correct?
 - A. That's right.
- Q. And you would advocate a policy where no ESP would ever be approved by the Commission,
- A. That's correct.
 - Q. And you base this opinion that you just

had on the Opinion and Order in PUCO case No. 1 2

- 12-3151-EL-COI which you cite in your testimony?
- 3 I cite to that. That's, obviously, not 4 the total basis of my opinion, but sure I cite to 5 that in my testimony.
 - And that was Commissioner Schnitzer's concurring opinion?
 - Α. Yes.

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- And you recognize that a concurring opinion is not the controlling opinion?
- It's the majority opinion is the controlling opinion, so you're correct.
- Ο. Now, you also recognize that the statement that you quote from the then chair of the Commission can be fairly read as advice to the legislature as to what the legislature should do?
 - I don't disagree with that statement. Α.
- And there were other filings in that 0. case. You're aware of that, correct?
- I didn't -- I mean, I wasn't in the Α. Yes. I didn't participate, but sure, there were lots of things filed in the case.
- And would it be fair to say that you Ο. didn't review those other filings?
- 25 Α. That's correct.

- Q. So you don't know whether OCC made any filings in those cases, in that case?
- A. I believe they made a filing. I'm not familiar with it.
- Q. Would it be fair to say that since you haven't read the filing that OCC, you believe, made, you don't know if OCC argued for the elimination of ESPs or not?
- A. I don't know what positions OCC took in that case.
- Q. And would your policies be the same for any filings that NOPEC might have made?
 - A. Correct.

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- Q. Now, under the terms of the ESP versus MRO test, you would agree with me that one must evaluate all the terms and conditions of the ESP?
 - A. Yes. It's an aggregate test.
- Q. So this includes or this would mean, though, in your view, not including any costs or benefits that resulted from prior ESPs, correct?
- A. That's right. Another way of stating it is it's an incremental test.
 - Q. Now, you're aware that the Commission has considered qualitative aspects of ESPs in its determination or review of the ESP versus MRO test in

other ESPs?

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- A. They have. I haven't reviewed every one, but the ones that I've reviewed, they did address qualitative issues.
- Q. And the Commission has also approved ESPs where the ESP rates were higher than MRO?
- A. Yes. I would clarify that just to say the ESP costs -- costs and rates, were higher than the MRO, but they had -- I can think of at least one case where they did that where for other reasons they decided that the ESP still should be approved with whatever modifications they made to it.
- Q. Now, as an economist, you understand that it's appropriate for the Commission to consider nonprice factors for an ESP in the ESP versus MRO test?
 - A. It could be, yes.
- Q. Now, you also understand that there is an Ohio statute that sets out energy policies for the state, correct?
 - A. Yes.
- Q. And you did no analyses of whether the ESP complies with the policies set out in that statute, correct?
 - A. You mean for this case?

Q. Yes.

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- A. Yes. In this case, I didn't go through and do a systematic review of that issue, that's correct.
- Q. You believe that there is, though, a state energy policy that addresses the state's effectiveness in the global economy?
- A. That's correct, I agree, that's one of the policies, yes.
- Q. But you don't know if the Commission has a charge to address economic development, correct?
- A. A charge to address economic development?

 By "charge" I assume you mean like a mandate?
 - Q. A charge.
- A. That's just something that's not clear to me. I don't think I can answer that.
- Q. Okay. Do you know whether they have -isn't it true you don't know whether the Commission
 has a statutory charge to address economic
 development?
 - A. A statutory charge, if charge means the same thing as mandate, then I don't know. I know that they can address it. I don't know if they're required to address it.
 - Q. Now, the Commission can consider rate

stability in making its ESP versus MRO determination, correct?

- A. Certainly.
- Q. And companies can offer features in ESP that has the effect of stabilizing rates?
 - A. Yes.
 - Q. Including a hedge product?
- A. Yes.

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- Q. I want to talk to you a little bit about your analysis, your quantitative analysis, of the ESP versus MRO test.
- 12 A. Yes.
- Q. And your analysis includes a figure for the cost of rider DCR, correct?
- 15 A. It does.
- 16 Q. And you're --
- 17 A. Actually, excuse me. It includes a range.
 - Q. Fair enough. And you're aware that the Commission has, for purposes of the ESP versus MRO test, treated the rider DCR and riders like it such as AEP Ohio's rider DIR as a wash, having no effect on the test because expenses under rider DCR could be recovered under an MRO versus a base rate case?
 - A. Or plural, rate cases. What stands out

is the last ESP case for the FirstEnergy Companies.

I believe they may have even used the term "wash,"

but I can't remember.

Q. And you're also aware -- well, I'll back up.

You participated, did you not, in the AEP ESP Case No. 13-2385?

- A. I did.
- Q. And you read the opinion in that case?
- 10 A. Yes.

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- Q. And would it be fair to say in that case, the Commission also determined that AEP's similar rider to rider DCR for purposes of the MRO test should not be factored in for quantitative analysis?
- A. That's right, with the caveat that they actually modified the companies' proposal. They modified it quite a bit. But then after their modification that they made to it, they then determined that it wasn't a positive or negative factor, I guess a wash, to use the term that we've been using.
- Q. Thank you. Now, in terms of -- I'm going to back up.
- For lack of a better term, your primary
 analysis in terms of quantification of the ESP versus

MRO test, you only take the rider RRS figures for the term of the ESP, correct?

A. Well, I do it both ways.

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- Q. Right. But initially that's one way you did it?
- A. That's the preferred way. Basically my testimony says let's look at it both ways. The first way I looked at it was for the three-year time period.
- Q. And with respect to looking at it the second way, the 15-year time period, you take
 Mr. Wilson's figures, correct?
- A. That's correct. He has three scenarios. For purposes of presenting ESP figures, I used his medium scenario.
- Q. And as you mentioned, he has three cases, and the first two are based upon the Energy

 Information Administration's forecast for natural gas prices, correct?
 - A. That's right, yes.
- Q. And then he uses Company Witness Lisowski and Company Witness Rose's information?
- A. Yes. To my knowledge, he did not change the companies' projections of their O&M cost and cap adds. My understanding is that he just accepted that

information.

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- Q. Now, using the reference case for the EIA, that was Mr. Wilson's first case, correct?
 - A. Correct.
- Q. And it's, I want to say, many millions of dollars as a wash, but it's essentially a wash?
- A. Oh, I think when you take into account, you know, the enormous potential for monitoring error, I think it's fair to call it a breakeven.
- Q. And the second case he uses, as Mr. Wilson, a high oil and gas resource case, correct?
 - A. The EIA high oil and gas resource, yes.
- Q. And you've seen that case before, correct?
- A. I'm aware of it. It's not anything I've really studied.
 - Q. Have you seen the annual energy outlook that Mr. Wilson uses?
 - A. I have. I mean, it's a report that I routinely reference and use in other cases. I didn't study it specifically for this case, because that wasn't my assignment, but it's a document I'm generally familiar with.
 - Q. So the answer to my question is you've

seen it before?

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- A. Oh, sure, yeah.
- Q. And you're aware that the natural gas prices that are projected in the Ohio oil and gas research case are well below the other cases that the other five -- the four main cases that the EIA looks at in its AEO?
- A. Yes. I think in your question you said "research" and you meant "resource."
 - Q. Yes. Thank you.

You would agree with me that oil prices are currently low?

- A. Compared to where they've been in about the last ten years, yeah. I'm loving it.
- Q. And do you know that as far as natural gas price forecasts, that EIA includes in its AEO, there's a low price forecast, low oil price forecast?
 - A. Yes, it's a low case.
- Q. And would it be fair to say that if we used that low case, it would be much closer to the reference case?
- A. I would have to verify that. If you want to suggest that's the case, I'm not disputing that.
- Q. Now, Mr. Wilson's third case is based upon natural gas futures prices, correct?

A. Yes.

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- Q. And would you agree with me that most forecasters don't use futures prices beyond the first few, perhaps, three years because after that, the futures market is thin?
- A. Right. I think you're referring to long-term studies. If they were doing long-term studies, they may very well for the first few years use the futures market. But then they -- excuse me. When I say the "futures market," I'm talking about the CME futures markets for standard products like the Henry Hub, something like that. I think that's what we're talking about.

And that's information that's readily available, and they might use it for the first couple of years, but if you're talking about a figure, let's say, that's published on the CME website going out five years, ten years, they would -- typically they wouldn't grab a figure like that. Rather what they would do is they might take it just for the first couple of years, and then attach an escalation figure to it.

- Q. Now, would you agree with me -- so is the answer to my question yes?
 - A. Yes, with just adding a little bit more

explanation, yes.

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- Q. Would you agree with me that historically, gas prices have been volatile and probably more volatile than most other commodities?
- A. They have been volatile. I'm not in a position to say they have been more volatile than most other commodities. Most other commodities being things like food products, metals and -- I haven't done those calculations. I would say that natural gas has been more volatile than certain other energy commodities. I think it's fair to say that.
- Q. Would it be also fair to say that you would not expect gas prices to be flat and unchanged over eight years?
- A. I would love it if it was true that they were unchanged over ten years. I wouldn't really expect that.
- Q. Now, you did not do any forecasts for this case, correct?
 - A. That's correct.
- Q. And you did not model the impact of rider RRS, correct?
 - A. Model it in the sense that Mr. Ruberto did or Mr. Wilson, I did not.
- Q. And would it also be fair to say you did

not do a typical bill analysis?

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- A. I did not calculate typical bills. I did calculate total numbers, but not typical bills.
 - Q. So the answer to my question is yes?
 - A. That's correct.
- Q. And the only typical bill analysis you've seen has been one that was done by the companies, correct?
- A. The companies are the only party that, to my knowledge, have done a typical bill analysis.
 - Q. So the answer to my question is yes.
- 12 A. That's right. It was more than one witness that did it, but yes.
 - Q. And did you review the typical bill -- I take it then you reviewed the typical bill analysis that was attached to the companies' application?
 - A. Yes. I actually saw two of them, two typical bill analysis.
 - Q. I'm getting to the second one, perhaps.
 - A. Okay. Thank you.
 - Q. Is the second one that you saw, that was in discovery, a discovery response?
- A. No. It was actually in the companies'
 workpapers. There was one attached to the
 application. I think it was Attachment 7. It may

have been discussed here in hearings. And then there was another one that was, I believe, in the companies' workpapers. I don't know if that's something that's in the record or not.

Q. Okay.

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- A. But that's where I saw the other one.
- Q. And would it be fair to say, sir, that in looking at the typical bill analysis, either one that you looked at, for most rate classes and most usage, rates went up -- or, rates went up in the first year but then down in the second and third years of the ESP?
- A. They went up, right. They went up in the first year as compared to ESP III. That's the comparison that was made, and then they -- from after year 1, they went down a little bit, and they went down a little bit further in the year 3 as compared to year by year, but not as compared to ESP III.
 - Q. Okay.
- A. That would be the best description I could give you.
- Q. Thank you. Now, I want to talk to you a little bit about the qualitative aspects of the ESP. Would you agree with me that Ohio has a role to play in the development of generation in Ohio?

A. I would think so.

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- Q. And PUCO has a role in ensuring reliability for electric customers?
- A. Yes. It has a role to play with regard to reliability, yes.
- Q. Now, with regard to the retirement of the plants in question here, I want to ask you some questions about your own background. You've never had a decision-making role in buying or selling a retirement power plant, correct?
- A. Not a decision-making role, per se, no, a recommendation role.
 - Q. Haven't seen information on the finances of the FES plants at issue here, correct?
 - A. Well, no, that's not true. I've seen the information that's in the record in this case.
 - O. From Mr. Moul?
 - A. Yeah. I'm trying to remember whether there was anyone else. Certainly it's from Mr. Moul. I mean, there's also from other witnesses, too. It's not just him. I'm thinking of Dr. Kalt, for example.
 - Q. All right. Is it true that you haven't reviewed any information on FES's debt?
 - A. No, other than what was in Mr. Staub's testimony, no, which was not very much.

- Q. And you don't know how much additional debt FirstEnergy Corp. can take without affecting its credit rating, correct?
- A. No, I don't, because that would depend on many variables.
- Q. Now, you know that FES has deactivated a number of coal-fired plants located along Lake Erie in 2014 and this year, correct?
- A. I know that they deactivated a number of coal units yes.
- Q. And you know that FirstEnergy Solutions announced scheduling plans to repower two units with biomass at the R. E. Burger plant in Shadyside, Ohio.
- A. I'll take your word for it. That's not something that I follow.
- Q. And you also are aware that in 2013, FES deactivated Hatfields Ferry and Mitchell power stations?
 - A. Yes.

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- Q. Now, you've done no modeling on the consequences of retirement of plants in question, correct?
- A. No. I'm not sure which consequences you're referring to, but I guess for purposes of your question, it may not matter since I didn't do any.

- Q. Right. And from a reliability standpoint, the location of a particular plant may be relevant, you would agree with that, correct?
- A. You're asking me whether location matters? Sure, of course it does.
- Q. And you would also agree with me that voltage support is necessary to maintain the stability of the grid?
 - A. Absolutely.

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- Q. And for voltage support, the location of the plant is very relevant, correct?
- A. Location of the relationship between the location of the plant and load is relevant for the voltage support issue along with the characteristics of the generating units.
- Q. And you would agree with me, would you not, that the plants in question here provide economic benefits to their local areas?
 - A. They do.
- Q. And they provide things like providing employment and paying property taxes?
 - A. Yes.
- Q. And if the plants would close, that would have a property tax impact?
- 25 A. It would. I mean, presumably it would

unless it was replaced by something that was comparable.

- Q. Okay. And the plants, you would agree, are major employers in their respective geographic areas?
 - A. They are.

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- Q. And you don't know who other major employers in that area might be?
- A. I don't know the names of the other major employers.
 - Q. Or the unemployment rates in those areas?
- A. I have a general understanding of the unemployment rates. Maybe not precise, but I know, in general, what the unemployment rate situation is.
- Q. Would looking at figures from the Bureau of Labor Statistics be information that you would rely upon to form a view as to the unemployment rates in those areas?
- A. Yes. The Bureau of Labor Statistics has unemployment rates by state and by counties.
- MR. KUTIK: May I have a moment, your
 Honor?
- EXAMINER CHILES: You may.
- MR. KUTIK: Your Honor, we would ask to have marked as Company Exhibit 74 a multi-page

document that starts with a page that's entitled "Local Area Unemployment Statistics Map."

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EXAMINER CHILES: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

- Q. Mr. Kahal, I've handed you what we have asked to have marked for identification as Company Exhibit 74. Does this appear to be data from the Bureau of Labor Statistics?
- A. It does. On their website, if you actually go to their website, it's in color, which would be a lot nicer.
- Q. I agree, sir. And do you know -- and it lists here, does it not, the various counties in Ohio and their unemployment rates?
 - A. It does, for July of 2015, yes.
- Q. And you are aware, are you not, the counties in which the plants are located?
- A. The two plants that are at issue in this case, yes, I am aware of that. The Sammis, I think, is located in Jefferson County and Davis-Besse in Erie County.
- Q. And if we look at this table, and particularly on the second page, we see the unemployment rate for Jefferson County is 7.4 percent?

A. Yes.

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- Q. And do you know where the Davis-Besse plant is located?
 - A. Erie County.
- Q. How about Ottawa County? Does that sound familiar?
 - A. You could be right. I thought it was Erie County. But Ottawa County, yes, and the number is 5.2 percent.
- Q. Now, I want to talk to you a little bit about retail rates and prices in Ohio. Would it be fair to say that you have not studied the change in prices experienced by customers as they've switched contracts?
 - A. We're talking about switching retail suppliers?
- Q. Or going from one contract to another in a retail -- with the same retail supplier.
- A. That's correct. I mean, for nonresidential customers, it's generally not public information.
- Q. And you've also not done a study of the change in retail generation rates from nonshopping customers as EDUs have switched from ESP to ESP?
- A. From one three-year period to the next;

is that what you're referring to?

Q. Yes.

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- A. That's correct.
- Q. I want to talk to you a little bit more about rider DCR.
 - A. Sure.
- Q. You understand that rider DCR is to recover costs related to investments or expenditures intended, in part, to provide reliability benefits, correct?
- 11 A. Yes.
- 12 Q. And you would agree with me that 13 reliability adds value for customers?
- A. Absolutely.
 - Q. And you're aware that there have been cost tracker rider proceedings in Ohio?
- 17 A. Yes.
- Q. And if the Commission in those cases

 finds that costs are not prudent, the Commission has

 the authority to disallow certain costs being

 recovered under those riders?
- A. That's my understanding, that the
 Commission has the authority to disallow imprudently
 incurred or unreasonable costs.
- Q. And you have not participated in cost

tracker rider audit proceedings in Ohio?

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- A. In Ohio, I have not, that's correct.
- Q. And you have not reviewed cost tracker rider audit proceedings in Ohio?
- A. That's right, I have not been involved in any of those proceedings.
- Q. And that includes proceedings to audit rider DCR, correct?
 - A. That's correct.
- Q. Would it be also correct to say you haven't been involved in a base rate case in Ohio for many, many years?
- A. It's been quite a while since I've been involved. I was trying to remember when, but it's been quite a while, you're correct.
- Q. And you believe that there is less risk associated with recovery of costs through a cost tracker than a base rate case, correct?
 - A. There's less risk, yes.
- Q. And one of the reasons is because you think that prudence review disallowances are rare, correct?
- A. That's been my experience, that prudence disallowances in tracker proceedings are rare. I think the second reason that's very often cited is

there's less regulatory lag.

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- Q. I was going to ask you that.
- A. There is less -- yes, there's less regulatory lag.
- Q. Thank you for anticipating my question.

 It's your view that customers -- I'll

 back up.

You would agree with me, would you not, that customers are unwilling to pay more to avoid outages? That's a view you have adopting

Mr. Williams' testimony, correct?

- A. I don't know whether -- I think that that's a reference to some surveys, customer surveys, that have been done. I don't have firsthand knowledge of that being true.
- Q. And any comments that you would have on customer perceptions would be based upon

 Mr. Williams' testimony?
- A. That's right, I didn't get involved with reviewing those customer surveys and that sort of thing.
- Q. And, again, you've anticipated my next question, so I appreciate that.
- Now, I want to talk to you a little bit about Mr. Effron's calculations regarding earnings.

You agree with me that what he did was not a base rate return calculation, correct; in other words, a return calculation one would make in a base rate case?

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- A. No, it is. I think that what I explained in my testimony, is that it's not at the same level of detail. It's not that its conceptually different.
 - O. It's not the same level of detail?
- A. It's not the same level of detail as what would take place in a rate case where witnesses will be introducing adjustments and normalizations and all kinds of myriad of things that go on in a rate case.
- Q. So there might be a variety of adjustments and a variety of normalizations that might occur in a base rate case not reflected in Mr. Effron's calculations?
- A. That's correct. I don't think he tried to represent it otherwise.
- Q. And would it also be fair to say that Mr. Effron's calculations are not the formula that would be used for the SEET, S-E-E-T?
- A. Oh, no, no. He wasn't trying to simulate a SEET type of presentation. He was simply trying to present, as I understand it, what the companies' experience, based upon the most recent data that he

had in terms of their earnings under distribution service.

- Q. So the answer to my question is yes?
- A. It's different than a SEET, yes.
- Q. And it's your understanding that the SEET acts as a mechanism for limiting earnings in an ESP?
 - A. In a fashion, yes.
- Q. And you understand that that's part of the ESP statute, correct?
 - A. Yes.

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- Q. And unlike as with a base rate case, to obtain approval of an ESP under the ESP statutory test, there's no rate base necessary to be shown, correct?
 - A. I think you're referring to the filing requirements?
 - Q. Yes.
 - A. To my knowledge, there isn't a specific rule that requires that being filed when one makes an ESP application.
 - Q. Or for a rate of return either, correct?
 - A. Or the presentation of a rate of return.

 Now, there is financial information projections that are part of the filing.
 - Q. My question is about a rate of return.

- A. That doesn't include a rate of return.

 That includes financial information.
- Q. Now, you haven't reviewed any orders in any of the companies' SEET proceedings, correct?
- A. I have not been involved in any SEET proceedings or reviewed SEET orders.
- Q. I want to ask you a few questions or maybe one or two about Rider GDR.
 - A. Yes.

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- Q. You understand, do you not, that under the companies' proposal to obtain any recovery, the companies would first have to apply for approval for recovery of some type of cost, correct?
 - A. That's correct.
- Q. And then they would have to come in to show the amount of the costs sought to be recovered or, perhaps, a projection of that cost?
- A. I think that's the proposal as to how it would work.
- Q. Now, I have one, I think, final line of questions that I want to talk to you about, and that's relating to stipulations and your review about the stipulations in this case. You reviewed at least one Commission case on the standards for approval of a stipulation, correct?

- A. Yes, specifically the -- I think it's the ESP III case, which resulted in a stipulation, and there was pretty extended discussion about that in the Commission order.
- Q. And you haven't been involved in negotiations of any of the stipulations in this case, correct?
 - A. Oh, I have not, no.

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- Q. And you have no information on any involvement that OCC may have had in any negotiation with respect to a stipulation or any issue of settlement, correct?
- A. That's correct, I have no knowledge of what their participation in the settlement process, if any, has been.
- Q. And your answer would be the same for NOPEC, correct?
- A. My answer would be the same for NOPEC, that's correct.
- Q. And you don't know if there was any party precluded from having an opportunity to participate in the settlement process?
 - A. That's correct.
- Q. And you would agree with me that no stakeholder's interest is more important than any

other stakeholder's interest, correct?

- A. I would have -- the best answer I can give you, I have no basis for saying that one stakeholder's interest should be elevated over another stakeholder's interest. That's the best answer I can give you.
- Q. And you don't believe that OCC or NOPEC should have a veto over stipulations, correct?
- A. I don't believe that any individual single party should have a veto, that's correct.
- Q. Now, you're aware that the signatory parties included representatives of commercial customers, industrial customers, and municipalities, correct?
 - A. Yes.

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- 16 Q. But you don't know if any signatory party
 17 represents residential customers, correct?
 - A. The general body of residential customers of the three utilities, I don't know that any of them represent them.
 - Q. Okay. Well, isn't it true that you don't know if any signatory party represents residential customers at all?
- A. That's correct, I don't. I don't know what their specific representation is.

- Q. And you don't know if there are any side agreements not reflected in the stipulation as amended?
- A. That's correct, I have no knowledge of any side agreements.
- Q. You don't know if the signatory parties were represented by experienced counsel?
- A. I'm agnostic on that in that I can't comment on the capabilities of the counsel that were involved.
 - Q. In fact, you don't know those counsel?
- 12 A. I don't know them, no.
 - Q. That's a good reason to be agnostic.
- 14 A. I agree.

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- Q. Now, you have a view, do you not, that the signatory parties did not do an independent analysis, correct?
 - A. I have a view that I don't know that they have. I've seen no evidence that they have.
 - Q. Okay.
 - A. What they may have done and not provided is something that's unknowable to me.
- Q. You wouldn't consider a party that merely read the filings and then came to a conclusion about the benefits of the stipulation as a party that had

done an independent analysis, correct?

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- A. I wouldn't consider that to be an independent analysis, just reading the filing.
- Q. But you understand that a party could come to a conclusion regarding the benefits of a stipulation without doing what you would consider to be an independent analysis.
- A. They can come to any conclusion they want, sure.
- Q. Now, your belief that the parties didn't do an independent analysis is based upon three things; one, that you don't believe any signatory party provided any substantively supported testimony; two, signatory parties objected to discovery regarding what analysis they did; and three, to the extent the signatory parties answered this discovery, it showed that they had not done any bill impact analysis, correct?
- A. Well, all those statements are true. But just to clarify, I'm not saying that because they didn't answer the discovery that by itself means that they didn't do an analysis. I'm simply saying it simply means that by not responding to the discovery or objecting to the discovery, that I can't document that they have.

- So is the answer to my question yes? Q.
- 2 Α. With that clarification, I think the 3 answer is yes.
 - Ο. Now, do you know who Nucor Steel is?
- 5 Α. Yes.

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- And you understand that Nucor Steel is a 6 Ο. 7 signatory party.
 - Α. Yes.
- Do you know a party called the Ohio Energy Group or OEG? 10
- 11 I don't know who their members are.
- 12 Q. I didn't ask you that; whether you knew 13 that OEG is a party.
- Oh, that they're a party, yeah. I don't 14 have a knowledge of who they are, but I know they're 15 16 a party.
- 17 Do you understand that OEG was a 18 signatory to the stipulations in this case?
 - I believe so. I would have to check who Α. signed the stipulation.
- 2.1 Ο. Would you like to do that, sir, or will 22 you accept that?
- 23 Α. I'll accept it.
- 24 And it's true, is it not, that both Nucor 25 Steel and OEG sponsored witnesses in this case that

testified in support of the stipulation?

- A. I didn't read their testimony that way.

 I read the testimony of Dennis Goins and I read the testimony of Steve Baron. I certainly did not read the testimony of either witness as being a full-throated support for the entire stipulation. I read their testimony as being support for aspects of it.
- Q. All right. But you did read their testimony?
 - A. Oh, yes.

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- Q. And the testimony, at least in your view, made statements in favor of parts of the stipulation?
- A. Yes, of components of the stipulation.

 As an example, Dr. Goins testified strongly in favor of the interruptibility credit, but really not much else about the rest of the stipulation.
- Q. Now, with respect to the signatory parties' answers to discovery, you would agree with me that many of those parties objected to the discovery that's attached to your testimony on at least one of three grounds, maybe combinations of these three grounds: Attorney/client privilege, work product, and confidential settlement talks?
 - A. Yes.

Q. And you're aware that each of those grounds may be a basis for not otherwise responding to discovery?

A. Absolutely.

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- Q. And since you're not an attorney, you're not in the position to judge the merits of those objections, correct?
- A. No, I'm not. I've had pretty extensive experience with settlement processes. I don't find any of this surprising.
- Q. All right. And you're not aware, are you, that OCC or NOPEC moved to compel any response to challenge the validity of any of the objections?
 - A. Not to my knowledge.
- Q. Now, would it be fair also to say that your primary problem with the stipulation as amended is that it includes riders RRS, DCR, and ELR?
 - A. Yes. Those are the biggest problems.
- Q. And with regard to rider ELR, you don't know of any CRES providers that provide interruptible rates, correct?
- A. I don't have firsthand knowledge of CRES providers that provide interruptible features to their service.
 - Q. So the answer to my question is yes?

A. Yes.

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- Q. And you're not aware of any recent

 Commission decisions regarding the need to continue

 interruptible rates?
 - A. No.
- Q. Now, regarding the policy issues discussed in the stipulation as amended, on the issue of the alleged selection or regarding stranded costs, regarding the policy issues in the stipulation regarding the issues of stranded costs, you were not involved in any electric transition plan case in Ohio, correct?
- A. That's correct. I'm a little bit confused by the question, though, because I didn't think stranded costs were addressed in the stipulation. Am I misunderstanding the question?
- Q. Did you include commentary about stranded costs in your supplemental testimony, sir?
- A. I did. I thought you were referring to the stipulation.
- Q. I'm sorry, in your supplemental testimony.
 - A. In the supplemental testimony, yes.
- Q. And so let's get back to my question, which I think you've answer but just for clarity.

You were not involved in any electric transition case in Ohio?

A. That's correct.

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- Q. And you don't remember reading any opinions in those cases, correct?
 - A. I'm pretty sure I didn't.
- Q. And you don't know when the transition period was, correct?
 - A. I know the general time frame. I don't know precise dates.
 - O. Or when it ended?
 - A. Again, the same thing. I don't know precise dates. I don't know the general time frame.
- Q. And you don't know what a rate certainty plan or what a rate stability plan is?
 - A. Those are terms that I don't recognize.
 - Q. And you don't remember reading any decisions about the companies' plans with respect to a rate certainty plan or rate stabilization plan?
 - A. That's correct.
 - Q. And you don't know the mechanism for the companies' collection of stranded costs?
- A. The rate mechanism, I don't know what rate mechanism was used for the company to collect its stranded costs.

- Q. And you don't know if the companies' rates went up or down during the transition period, correct?
- A. That's right, I don't know the history of the companies' rates during that period.
- Q. And regarding the issue of stranded costs, would it be fair to say you're relying solely on Dr. Rose's testimony?
 - A. Yes.

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- O. And no other source?
- 11 A. In terms of the quantitative numbers, I'm
 12 relying on his representation of the \$7 billion
 13 collection of stranded costs. I'm relying on him for
 14 that.
 - Q. On a slightly different subject, would you agree with me that you would not define reasonably priced service as service that's priced as low as possible?
- MR. STINSON: Could I have that question reread, please?
- 21 EXAMINER CHILES: You may.
- 22 (Record read.)
- A. We are talking about electric service, is that what you mean?
- 25 Q. Yes.

4916 In the context of electric service, 1 Α. 2 that's not a definition I would use. 3 MR. KUTIK: May I have a minute, your 4 Honor? 5 EXAMINER CHILES: You may. MR. KUTIK: I have no further questions. 6 7 Thank you. 8 EXAMINER CHILES: Thank you. Mr. Kurtz? 9 10 MR. KURTZ: No questions. 11 EXAMINER CHILES: Mr. McNamee? 12 MR. MCNAMEE: No questions. Thank you. 13 EXAMINER CHILES: Mr. Stinson? 14 MR. STINSON: Could we take just one 15 moment, your Honor? 16 EXAMINER CHILES: Sure. 17 (Discussion off the record.) 18 EXAMINER CHILES: Let's go back on the 19 record. 20 Mr. Stinson? 2.1 MR. STINSON: We have no redirect, your 22 Honor. 23 EXAMINER CHILES: Thank you very much. 24 EXAMINER PRICE: I've got questions. Not 25 so fast.

Mr. Kahal, could you turn to page 26 of your testimony?

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THE WITNESS: The direct, sir?

EXAMINER PRICE: The direct, yes.

THE WITNESS: Yes, I have that.

EXAMINER PRICE: In the answer to question 26, you discuss giving equal weight to the benefits from both Mr. Rose's projections and Mr. Wilson's projections; is that right?

THE WITNESS: That's correct.

EXAMINER PRICE: So we have a number of projections in front of us. Do you think it's too crude of a mechanism for the Commission to take the average of all the projections that we have in front of us?

THE WITNESS: Too crude? I mean, that's one thing that the Commission should do. I think that -- now, I don't want to speak for Mr. Wilson, but I do think that it's important to recognize that there's a lot of uncertainty in these numbers, and the fact that we have comparing Mr. Rose, that is, companies' Mr. Rose and Mr. Wilson, there's a spread of \$6 billion. Mr. Wilson's case that has the lowest prices is almost a \$4 billion detriment. Mr. Rose's produces a benefit of 2 billion, so that's a spread

4918 1 of 6 billion. That's really huge. And the 2 Commission could do a lot of things. I mean, they 3 could average Mr. Wilson's numbers with Mr. Rose's 4 numbers if they thought they were of equal validity. 5 EXAMINER PRICE: So if we had other projections, three or four projections, that the 6 7 Commission thought were equally valid, it would not 8 be incorrect or not be invalid to aggregate them and 9 take the average? 10 THE WITNESS: If they thought they were equally validly, that would be one way of looking at 11 12 a possible expected outcome. They could do that. 13 wasn't trying to advocate that, but that's something 14 that they could do. EXAMINER PRICE: I understand. I'm 15 16 struggling with all the projections we have and how 17 we can make some sense of them of. 18 THE WITNESS: Yeah. I mean, planners 19 struggle with that question all the time. 2.0 EXAMINER PRICE: If you could turn to your supplemental testimony. 2.1 22 THE WITNESS: Yes. 23 EXAMINER PRICE: Page 17. Is all of your 24 knowledge of Ohio law derived from Dr. Rose?

THE WITNESS: Oh, no. I've read the

statute. It's been called the ESP statute.

EXAMINER PRICE: Perfect. You discussed in your testimony that Dr. Rose describes his firsthand experience with involvement in Senate Bill

THE WITNESS: Yes.

3, is that right?

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EXAMINER PRICE: And you quote him saying, "After the enactment of Senate Bill 3, market forces are to determine which power plants should be operated and which power plants should be retired if they're inefficient and uneconomic."

THE WITNESS: Yes.

EXAMINER PRICE: And we're moving through a deregulated environment, correct?

THE WITNESS: Exactly, yes.

16 EXAMINER PRICE: Are you familiar with

Senate Bill 221 which was enacted in 2008?

18 THE WITNESS: I don't know the

19 legislation by the numbers, by their Senate bill

20 | numbers, so I'm not entirely sure. What I have

21 reviewed is the statute --

22 EXAMINER PRICE: I'll get to that, don't

23 worry. You do not recall what Senate Bill 221 is?

24 THE WITNESS: No.

25 EXAMINER PRICE: You know if Dr. Rose has

4920 any firsthand experience with Senate Bill 221? 1 2 THE WITNESS: I don't know that. 3 EXAMINER PRICE: Do you know whether or 4 not Senate Bill 221 changed 4928.14 to delete the words "market-based from" the standard service offer? 5 THE WITNESS: Don't know that. 6 7 EXAMINER PRICE: Do you know whether 8 Senate Bill 221 amended 4928.17 to change the 9 statutes on corporate separation? 10 THE WITNESS: That, I don't know. EXAMINER PRICE: Do you know whether 11 12 Senate Bill 221 enacted 4928.143? 13 THE WITNESS: I don't know. EXAMINER PRICE: You are familiar --14 THE WITNESS: I don't recognize that 15 16 bill, so I can't answer those questions. 17 EXAMINER PRICE: You are familiar with 18 4928.143, the ESP statute? 19 THE WITNESS: Yes, the ESP statute, 2.0 right. 2.1 EXAMINER PRICE: And that has an 22 automatic fuel adjustment clause provision -- an ESP 23 can have an automatic fuel adjustment clause? 2.4 THE WITNESS: It provides for that. I 25 guess it's an option, would be the best way I would

put it.

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EXAMINER PRICE: But that wouldn't be a market force, right? If an ESP had an automatic fuel adjustment clause, that would not be something you would say is characteristic of market forces determining price?

THE WITNESS: Generally not. It's possible that someone could enter into -- let me put it this way. I have a lot of experience with PPAs in competitive wholesale markets, and it is not uncommon, based on my experience, for market PPAs to have pass-throughs of cost items. That happens.

And if that was the case, I wouldn't necessarily say that's nonmarket, but I think that what you're alluding to is something like an automatic fuel clause is kind of more characteristic of the traditional regulated model.

EXAMINER PRICE: Are you familiar with what CWIP provisions are, construction work in progress provisions?

THE WITNESS: Yes.

EXAMINER PRICE: And you're aware 4928.143 allows construction work in progress provisions?

25 THE WITNESS: It provides for that as a

4922 1 possibility that the Commission could approve. 2 EXAMINER PRICE: It allows for it. 3 THE WITNESS: It allows for it. 4 EXAMINER PRICE: Would you consider a 5 CWIP provision to be something characteristic of a market-based system? 6 7 THE WITNESS: Generally, no. 8 EXAMINER PRICE: Are you aware that 9 4928.143(B)(2)(c) allows a utility to submit an 10 application to construct a power plant --11 THE WITNESS: Yes. 12 EXAMINER PRICE: -- and receive rate of 13 return regulation on that? THE WITNESS: Yes. 14 EXAMINER PRICE: Is that a characteristic 15 16 of a market-based system? 17 THE WITNESS: Generally not. 18 EXAMINER PRICE: Based on all that we've 19 talked about, isn't it possible that 221 moved the 2.0 policy of the state away from a strict deregulated 2.1 environment to something else entirely different? 22 THE WITNESS: I can't argue with you one 23 way or the other, because I don't think that I've 24 actually seen that legislation.

EXAMINER PRICE: Under 143, 4928.143, is

there any requirement that rates be set for the standard service offer based upon a market system?

THE WITNESS: As being the only way of

doing it I think is the context of your question.

EXAMINER PRICE: Yes.

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THE WITNESS: No, it doesn't require that as being the only way of doing it. I think as you correctly indicated, it actually provides for the possibility of constructing new power plants to serve load.

EXAMINER PRICE: Thank you. Finally, you indicated in your testimony prudence -- you found that prudence disallowances are rare; is that correct?

THE WITNESS: Under trackers, yes.

EXAMINER PRICE: If a company filed an application for an amount, it doesn't matter what the amount is, and then later a stipulation was reached for a lower amount, would you consider that to be -- and the Commission approved the stipulation for the lower amount, would you consider that to be a disallowance?

THE WITNESS: No, I wouldn't -- no, I wouldn't consider that to be a disallowance. I would consider that to be an agreement reached by the

parties based upon any number of considerations, including litigation risk.

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EXAMINER PRICE: That's fair. Are you aware whether in the last ten years the Commission has disallowed significant portions of storm damage recovery costs by Duke Energy Ohio?

THE WITNESS: I have heard of -- yes, I had heard that there was a disallowance. I can't remember what the reasons for it were.

EXAMINER PRICE: Are you aware of whether in the last five years the Commission has disallowed significant recovery of fuel charges by Dayton Power & Light? Not significant, but disallowed some portion of fuel charges.

THE WITNESS: No, I'm not familiar with the Dayton case. I had heard of the Duke case.

EXAMINER PRICE: Are you aware of whether in the last five years the Commission has disallowed fuel costs submitted by American Electric Power, Ohio, AEP Ohio?

THE WITNESS: I don't know.

EXAMINER PRICE: Are you aware of whether in the last five years the Commission has disallowed the recovery of certain alternative energy portfolio standard costs incurred by FirstEnergy?

1 THE WITNESS: Yes, I had heard of that. 2 EXAMINER PRICE: What's your definition 3 of rare? I'm sorry. That was argumentative. You 4 don't have to answer that. Thank you. You're 5 excused. EXAMINER CHILES: Mr. Stinson. 6 7 MR. STINSON: Yes, your Honor. At this 8 time, OCC and NOPEC would move OCC and NOPEC Exhibits 7 and 8. 9 10 EXAMINER CHILES: Are there any objections to OCC and NOPEC Exhibits 7 and 8? 11 12 Hearing none, they will be admitted 13 (EXHIBITS ADMITTED INTO EVIDENCE.) MR. KUTIK: Your Honor, we move for the 14 15 admission of Company Exhibit 74. 16 EXAMINER CHILES: Are there any 17 objections to the admission of Company Exhibit 74? 18 MR. STINSON: I would object to the 19 extent, your Honor, that we covered during 2.0 cross-examination the Ohio unemployment rates in the 2.1 involved counties. Attached is also unemployment 22 information considering Indiana and the United 23 States, which were not covered. We would object to 24 the inclusion of the Indiana and U.S. rates, those 25 pages.

1 MR. KUTIK: Your Honor, the witness identified this document as being statistics from the 2 3 Bureau of Labor Statistics which were reliable and he 4 relied upon in his work generally. The fact that we 5 didn't talk about specific statistics is not a basis for objection. The foundation has been laid. 6 7 EXAMINER CHILES: The objection is 8 overruled. We will admit the entirety of Company Exhibit 74. 9 10 (EXHIBIT ADMITTED INTO EVIDENCE.) EXAMINER CHILES: At this time, we'll 11 12 take a ten-minute break and we will return at 10:40. 13 Thank you. 14 Off the record. 15 (Recess taken.) 16 EXAMINER ADDISON: Let's go back on the 17 record at this time. 18 Mr. O'Donnell, please call your next 19 witness. 2.0 MR. O'DONNELL: I'll call Bruce Burcat 2.1 with Mid-Atlantic Renewable Energy Coalition, and 22 he's the executive director. 23 (Witness sworn.) 24 EXAMINER ADDISON: You may proceed, 25 Mr. O'Donnell.

4927 MR. O'DONNELL: We've introduced 1 2 Mr. Burcat's direct testimony, and we don't have any 3 questions for him at this time. 4 EXAMINER ADDISON: Would you like to mark 5 that as an exhibit? MR. O'DONNELL: Yes, your Honor. We 6 7 could mark that as Exhibit A. 8 How about MAREC Exhibit No. 1? 9 MR. O'DONNELL: Yes, your Honor. That 10 would be perfect. EXAMINER ADDISON: Thank you. It will be 11 12 so marked. 13 (EXHIBIT MARKED FOR IDENTIFICATION.) 14 MS. DUNN: Your Honor, could we go off the record for a moment? 15 16 EXAMINER ADDISON: Let's go off the 17 record. (Discussion off the record.) 18 19 EXAMINER ADDISON: Let's go back on the 2.0 record. 2.1 Did you have any other exhibits to mark, 22 Mr. O'Donnell? MR. O'DONNELL: No. 23 24 EXAMINER ADDISON: The amended 25 supplemental testimony filed on --

4928 1 MR. O'DONNELL: The amended supplemental 2 testimony we'll mark as MAREC Exhibit 2. 3 EXAMINER ADDISON: So marked. 4 (EXHIBIT MARKED FOR IDENTIFICATION.) 5 EXAMINER ADDISON: Mr. Burcat, you didn't have any revisions or changes to your testimony as 6 filed? 7 8 THE WITNESS: There were no changes, but I would say in my supplemental testimony we updated 9 the exhibit that was in my direct testimony, just for 10 clarification purposes. 11 12 EXAMINER ADDISON: Thank you for that 13 clarification. 14 MS. DUNN: Your Honor, may we go off the record for one moment? 15 16 (Discussion off the record.) 17 EXAMINER ADDISON: Let's go back on the 18 record. 19 Any questions, Mr. Randazzo? 2.0 MR. RANDAZZO: Well, your Honor, I do 2.1 have a couple of questions, but there's a process by 22 which prepared testimony can come into the record, 23 and I do not believe that process has been followed 24 here. So I think there's a major problem with 25 anybody doing cross-examination at this point.

4929 It's rather -- it's like an exhibit. It 1 2 has to be sponsored, and I don't believe 3 Mr. O'Donnell has properly sponsored the exhibits for 4 this witness, so I'll object. 5 EXAMINER ADDISON: Let's go off the record for a moment. 6 7 (Discussion off the record.) 8 EXAMINER ADDISON: Let's go back on the record. 9 10 Mr. O'Donnell. MR. O'DONNELL: Thank you, your Honor. 11 12 We'll lay a foundation for Mr. Burcat's testimony to 13 introduce it into the record. 14 EXAMINER ADDISON: Thank you. 15 16 BRUCE H. BURCAT 17 being first duly sworn, as prescribed by law, was examined and testified as follows: 18 DIRECT EXAMINATION 19 20 By Mr. O'Donnell: 2.1 0. Mr. Burcat, did you file testimony in 22 this case? Yes, I did. 23 Α. 24 And can you identify the testimony for 25 the record?

A. Yes. I filed direct testimony on December 22nd, labeled the Direct Testimony of Bruce Burcat, and it's consisting of -- we didn't, unfortunately, number those pages, 14 pages of testimony and one exhibit, one attachment.

- Q. And, Mr. Burcat, did you also file supplemental testimony in the case?
 - A. Yes, we did.

- Q. Can you identify that?
- A. Yes. It's the supplemental testimony of Bruce Burcat filed on May 11th, 2015. It's five pages of testimony and one attachment.
- Q. Okay. And that's your testimony in this case. If we were to ask you the same questions in that testimony today, would you answer the same way, or do you have any amendments to that testimony that you'd like to make?
- A. No, other than just the clarification that I made earlier on the record.

MR. O'DONNELL: Okay. Thank you.

Your Honor, anything further that we need to do foundationally?

EXAMINER ADDISON: I believe this witness is available for cross-examination, unless

Mr. Randazzo has any other objections.

MR. RANDAZZO: We'll move on, your Honor.

EXAMINER ADDISON: Thank you. Please

proceed, Mr. Randazzo.

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CROSS-EXAMINATION

By Mr. Randazzo:

Q. Sir, my name Sam Randazzo. I'm general counsel for the Industrial Energy Users of Ohio and a member of the firm McNees, Wallace & Nurick.

Can you tell me how you define renewable?

- A. How I define renewable?
- Q. Yes.
 - A. Just renewable or renewable energy?
 - Q. We'll start with renewable resource.
- A. A renewable resource is typically a zero-emitting resource that is indefinite in its ability to, you know, for the resource itself to be obtained and used for generation in electricity.
- Q. Mandates that require subsidies for renewable resources?
- A. Well, we support, certainly, policies that facilitate the development of those resources because of their positive effects on the environment as well as economical impacts to the jurisdictions that they're located, among a number of other

benefits.

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- Q. Okay. Can you answer my question? Does your organization support state mandates that require customers to have a portion of their energy uses coming from renewable resources?
- A. Well, maybe if you could define mandates, but we support policies like renewable portfolio standards, sure, that encourage the use of renewable energy in a utility or suppliers portfolio of energy resources.
- Q. And so we are not dealing with the word "mandates." When you say "standards," would it be fair to say that if we substituted "requirements" for your choice of the word "standards," that your statement would remain unchanged?
- A. On the case of renewable portfolio standards, that is a requirement in some states and some states its voluntary.
 - Q. And do you know what the case is in Ohio?
- A. Right now there's a freeze, so there aren't -- there isn't a requirement at the moment for additional resources.
- Q. And do you know what happens if there's no further legislation in Ohio? Do you know what happens effective January 1, 2017?

- A. Yes. The freeze is over and the requirements are started up again at that point in time consistent with the statute.
- Q. And you're supporting the resumption and the escalation in what you call standards, what I call mandates?
 - A. Yes.
- Q. And do those standards result in nonbypassable charges being imposed on customers?
 - A. In Ohio?
- 11 Q. Yes.

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- 12 A. Not that I'm aware of, no.
- Q. Would you agree that -- well, strike that.
- Do you believe that what you call standards, what I call mandates, effectively subsidize the market entry of renewable resources in Ohio?
- A. No. I think it creates a fair playing field.
 - Q. And how about the production tax credit that wind resources receive, would you agree that that's about 2.3 cents a kilowatt-hour?
 - A. Yes, that's what it is currently.
 - Q. And do you regard that as a subsidy for

renewable resources?

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- A. I look at it as the same type of thing.

 It's a policy to support the development of renewable energy throughout the country. It's a federal policy, not a state policy.
- Q. And to the extent that there were property tax breaks in Ohio for wind resources, would you regard that as a subsidy?
 - A. No.
 - Q. Why not?
- A. I don't see tax credit as something that reduces the level of tax, but it's the project -- the project gets developed, and there's still tax payments being made by the entity. I think it's a tool that's used commonly, not just in this state but in a number of states for a variety of different purposes, and so I don't see it in the same way as you see it.
- Q. And would you regard requirements in the wholesale market that permit wind resources to come and go without obligation to be a subsidy?
- MR. MENDOZA: Objection, vague. Come and go has no -- it's impossible to understand.
- MR. RANDAZZO: I'll strike the question.
- 25 That's all I have. Thank you.

4935 1 EXAMINER ADDISON: Thank you, 2 Mr. Randazzo. 3 Mr. Mendoza? 4 MR. MENDOZA: No questions, your Honor. 5 EXAMINER PRICE: Ms. Petrucci? 6 MS. PETRUCCI: No questions. 7 EXAMINER ADDISON: Mr. Sauer? 8 MR. SAUER: No questions, your Honor. 9 EXAMINER ADDISON: Ms. Dunn? 10 MS. DUNN: Thank you, your Honor. 11 12 CROSS-EXAMINATION 13 By Ms. Dunn: 14 Good morning, Mr. Burcat. 0. 15 Α. Good morning. 16 My name is Carrie Dunn. We've not met Ο. 17 personally before, but I'm counsel for the Ohio 18 Edison, the Cleveland Electric Illuminating Company, 19 and the Toledo Edison Company. If I refer to the 2.0 term "companies," can we agree I mean those three 2.1 entities I just identified? 22 Α. Yes. 23 And you're here on behalf of the 24 Mid-Atlantic Renewable Energy Coalition, correct? 25 Α. Correct.

- Q. Can we refer to that throughout our discussion as MAREC?
 - A. Yes. I know it's a mouthful otherwise.
- Q. Thank you. I'm going to go ahead and start with MAREC Exhibit 1, your direct testimony, and you previously indicated that there are no page numbers. I'm going to represent that I'm going to start page 1 as the place where you say, "Please state your name and business address," okay?
 - A. Okay.

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- Q. And on page 1 of your direct testimony, it states that MAREC's membership, in part, consists of wind developers, correct?
 - A. Correct.
- Q. And for the time being, MAREC's focus is primarily on wind energy, not solar or other types of renewables, correct?
 - A. That's correct.
- Q. And some of your members have an interest in developing wind projects in Ohio, correct?
 - A. That is correct.
- Q. And some of your members have permitted wind farms, but they're not operational or under construction at this point in time, correct?
- 25 A. Yes.

- Q. And in Ohio, the Ohio Power Siting Board is responsible for issuing permits to wind farm developers, correct?
 - A. Yes.

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- Q. Now, simply because a wind developer receives a permit from the Ohio Power Siting Board, it does not necessarily mean the developer will actually construct the wind farm, correct?
 - A. That's correct.
- Q. Or that the wind farm will become operational, correct?
- A. Yes.
- Q. And sitting here today, there are two
 operating wind developments in Ohio operated by MAREC
 members, correct?
- 16 A. That's correct.
- Q. And there are 11 permitted wind projects in Ohio that are either not constructed or operational, correct?
 - A. That's my understanding, but they're not all MAREC members.
 - Q. Thank you for the clarification.

I also want to focus now on what

documents you reviewed from this case in preparing

both of your testimonies. For example, you did read

parts of the application the companies filed,
correct?

A. Yes.

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- Q. And you also reviewed Jay Ruberto's testimony, correct?
 - A. That's correct.
- Q. Is it fair to say for your direct testimony that you limited your review to those two items?
- A. The application and Jay Ruberto's testimony -- no, I looked at other -- in general, I looked at other things. I looked at statutory authority and some other issues that would arise. I did some searches. I did some general research. We also used a document -- I know I raised this at the deposition, but we looked at a document that showed the specifics on -- some of the specifics on -- let's see, I guess that was the Blue Creek Wind Farm.
- Q. And I don't think my question may have been very clear. But as far as what the companies filed in this case, is it fair to say that you limited your review to the application and Jay Ruberto's testimony?
- A. For the direct testimony?
- 25 Q. Yes.

- A. I would say that's primarily correct, but I did look at -- well, from the companies' information, yes.
- Q. Thank you. And I'm going to go ahead and turn to page 4 of your direct testimony. And the first answer paragraph, so the first paragraph at the top, in that paragraph, you're discussing the proposed transaction from the companies, correct?
 - A. Correct.

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- Q. And today you are not offering an opinion relating to whether or not the proposed transaction is legal under Ohio or federal law, correct?
 - A. That's correct.
- Q. You are also not offering an opinion as it relates to the structure of the proposed transaction, correct?
- A. In terms of that project, yes.
- Q. And you're also not offering an opinion on rider RRS, correct?
 - A. Correct.
 - Q. In your testimony, you are proposing a similar recovery mechanism, but for a purchase power agreement for renewable energy, correct?
 - A. Yes, I would say it's very similar.
- Q. And you're also not offering any other

- opinions on any other aspect of the companies' proposed transaction, correct?
 - A. I would say that -- I mean, we do talk -- you're talking about the direct testimony still or the supplemental direct testimony?
 - Q. Your direct testimony.
 - A. No, not in the direct testimony.
 - Q. And I'm going to go ahead and turn to page 6 of your testimony, your direct testimony.
 - A. Okay.

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- Q. And looking at the graph on page 6, you show a rise from 2013 up of the average annual LMP, correct?
 - A. Correct.
 - Q. And that rise is likely a result of the polar vortex, correct?
 - A. I can't say it's totally as a result of that. I could say that that's probably a piece of that, but I think there's probably other reasons involved in that. I mean, we know that natural gas prices have jumped around a little bit, maybe not as much in those earlier years, but that could be a big piece of it as well.
- MS. DUNN: Your Honor, may I approach?

 EXAMINER ADDISON: You may.

Q. Mr. Burcat, I've handed you a copy of your deposition. Could you please turn to page 24.

And starting on line 22, you state:

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"And in our testimony -- and let me find the page, on page -- I apologize for not having put page numbers on this, but basically page 6, there's a graph listed as PJM West Average Annual LMP from 2001 to 2014, which shows the extreme price volatility of energy prices from the time of 2001 to 2013. And even in 2013 you can see the price going into 2014 jump pretty significantly in that time frame

"And that's very likely related due to the condition we had last winter with the polar vortex jumping prices on a temporary basis."

Did I read that correctly?

A. Yeah. Maybe too much reliance on that particular condition. I mean, part of the concern with the polar vortex is the lack of natural gas availability to run generation at that time. So, I mean, I think certainly natural gas, whether it was through that particular event and possibly prices in general for natural gas, that those maybe combined could have created the volatility at that point.

But, yeah, the polar vortex was clearly a factor in that.

1 MS. DUNN: Your Honor, at this time I'd 2 like to move to strike everything after the word 3 "yes." I do understand we've had the so-called 4 Mulligan rule; however, I believe my question was 5 pretty straightforward, "if I read that correctly." Anything after "yes" is clearly not explaining or 6 putting in context and it can be dealt with on 7 8 redirect, if necessary. 9 EXAMINER ADDISON: I'm going to deny the 10 motion to strike. But, Mr. Burcat, if you could simply 11 12 answer counsel's question. Mr. O'Donnell can raise 13 any additional information that you'd like to be put 14 on the record during redirect.

- Q. (By Ms. Dunn) Go ahead and turn to page 7, please, of your direct testimony. And on page 7, you state that "The W. H. Sammis plant is exposed to coal-price fluctuations," correct?
 - A. That is correct.
- Q. You do not know what Sammis pays for its coal, correct?
 - A. That is correct.
- Q. You do not know what coal contracts
 Sammis has now, correct?
- 25 A. I do not.

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Q. And you do not know what coal contracts

Sammis will have in the future, correct?

A. That's correct.

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- Q. And earlier you discussed with Mr. Randazzo state incentives for renewable energy as well as production tax credits. Wind facilities also received accelerated depreciation, correct?
- A. That's correct, like a number of other types of businesses.
- MS. DUNN: Your Honor, I move to strike
 "like every other type of businesses."
- EXAMINER ADDISON: Mr. O'Donnell, do you have a response?
 - MR. O'DONNELL: I think that the statement was perfectly appropriate given that depreciation is not an energy-specific incentive.
- EXAMINER ADDISON: I'm going to grant the motion to strike after "that's correct."
 - Q. (By Ms. Dunn) Mr. Burcat, for PJM RPM auctions, the PJM average capacity factor for wind is 13 percent, correct?
- A. Yes. However, I think there's been some significant changes moving forward in the RPM auction.
- MS. DUNN: Your Honor, I would move to

4944 strike everything after the word "yes." 1 2 EXAMINER ADDISON: Mr. O'Donnell? 3 MR. O'DONNELL: Well, then we request she 4 clarify the question in the first place. Could we 5 have it reread? EXAMINER ADDISON: You may. 6 7 (Record read.) 8 MS. DUNN: I'm sorry, your Honor. Could we go off the record? 9 10 (Discussion off record.) MR. O'DONNELL: Thank you for repeating 11 12 the question. I think given that the question just said "for auctions" and didn't specify which auctions 13 14 or a time frame, that Mr. Burcat's answer was 15 perfectly appropriate because he's trying to provide 16 context so he's not misrepresenting something in this 17 proceeding. 18 MS. DUNN: Your Honor, he did answer 19 "that's correct" and then did go on to say the rest 2.0 of his sentence. 2.1 EXAMINER ADDISON: I'll grant the motion 22 to strike. Mr. O'Donnell, you can raise that issue 23 24 on redirect.

MR. O'DONNELL: Thank you, your Honor.

- Q. (By Ms. Dunn) Mr. Burcat, I believe you previously discussed the Blue Creek Wind Farm. MAREC has not done an analysis on the cost of operating the Blue Creek Wind Farm versus the cost of operating Sammis or Davis-Besse, correct?
- A. Yes.

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- Q. And MAREC has not done an analysis on the cost of operating the Paulding Wind Farm versus the cost of operating Sammis or Davis-Besse, correct?
 - A. Yes.
- Q. Turning to page 12 of your testimony, your direct testimony --
 - A. Okay.
- Q. -- at the bottom in the bullet points you list the general economic development benefits of adding approximately 800 megawatts of Ohio wind energy to the companies' ESP, correct?
 - A. Yes.
- Q. And as a basis for this information, you utilized the Blue Creek Wind Farm fact sheet, correct?
 - A. That's correct.
- Q. And you scaled the information on that fact sheet up for the 800-megawatt facility?
- A. Well, clarification, it's 800 megawatts

of wind energy. It's not for one particular facility. It could be multiple facilities, but that's what we did for the 800-megawatt total.

- Q. And, for example, the Blue Creek wind farm had \$2.7 million in annual local tax payments. You scaled that up to \$7.2 million for 800 megawatts of wind energy?
 - A. That's correct.

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- Q. And MAREC did not do a formal study relating to the economic benefits of its proposed 800 megawatts of wind energy?
 - A. We did not.
- Q. And for purposes of your direct testimony, you did not review the companies' testimony filed related to the economic development benefits of maintaining Sammis or Davis-Besse, correct?
 - A. Well, are you saying for the direct?
 - O. Yes.
 - A. That's correct.
- Q. MAREC did not do an analysis as to whether new transmission would be needed as a result of its proposal, correct?
- A. We did not -- can you repeat the question?

- Q. Sure. MAREC did not do an analysis as to whether new transmission would be needed as a result of its proposal?
 - A. We did not do an analysis.

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- Q. And in preparation of both your direct testimony and your amended supplemental testimony, you did not review any of the EPA's modeling for the Clean Power Plan, correct?
- A. Well, we did look at EPA's outputs in certain respects for developing our numbers on the schedule attached to the supplemental testimony.
- Q. For preparation of your direct testimony, you did not review any of the EPA's modeling for the Clean Power Plan?
- A. No. We did the same thing for the particular -- in fact, it's even labeled in the exhibit itself, so we did look at that.
- Q. Could you please open your deposition that I handed you previously, page 70, starting at line 10.
- Question: "Did you personally review any of the EPA's modeling for the Clean Power Plan?"
- Answer: "Their modeling? Not their
 modeling. I have looked at some of their data, but
 not the modeling"

Did I read that correct?

- A. Yes. And I believe that's my answer.
- Q. You do not know if Sammis is compliant with MATS requirements, correct?
 - A. That's correct.
- Q. MAREC has also not done a study on the cost of utilizing wind renewables to comply with the Clean Power Plan as compared to other options to comply, correct?
- A. MAREC has not performed that study, but there have been definitely other studies that we have looked at that do discuss compliance from the aspect of utilizing wind for compliance purposes.
- MS. DUNN: Your Honor, I would move to strike everything after the word "but."
- 16 EXAMINER ADDISON: Mr. O'Donnell?
- MR. O'DONNELL: That's fine. No
- 18 objection.

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- EXAMINER ADDISON: Motion to strike is granted.
- Q. Turning to your direct testimony,

 Attachment 1, you did not create Attachment 1 to your

 direct testimony, correct?
- A. I did not. It was under my supervision.
- 25 Q. And Attachment 1 to the amended

supplemental testimony, you did not create that either, correct?

- A. Well, based on -- I did not -- I had a hand in some of the changes that were made to that particular attachment based on my review of the earlier attachment, the subsequent review of the earlier attachment.
- Q. Just for clarification, should Attachment

 1 to your direct testimony be disregarded and

 replaced by the updated attachment to your amended

 supplemental testimony?
- A. It should be, because Attachment 1, while basically correct, there's a couple of minor errors in it, but based on the minor errors and the fact that it actually provides too much detail, some of the information is relevant for what we are trying to present there, yes, I would say we're at this point relying solely on the updated schedule in the supplemental testimony.
- Q. Turning to your amended supplemental testimony, looking at the updated exhibit, the capacity factor -- I'll let you get there. I apologize.
- A. Yes.

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Q. The capacity factor, the 59.45 for

4950 1 Sammis --2 Α. Yes. 3 -- that's using a straight average of all Ο. 4 of the Sammis units, correct? 5 Α. Yes. That's my understanding, yes. And the updated exhibit does not use a 6 weighted average of the Sammis units even though the 7 8 Sammis units are different sizes, correct? 9 Probably -- I would say that's correct, Α. 10 yes. And the 14.52, that's the interim EPA 11 Ο. 12 goal, correct? That's correct? 13 Α. And there are final goals now for Ohio, 14 Q. 15 correct? 16 That's correct. They've increased. 17 And in developing the updated exhibit, Q. 18 the capacity factor you used for wind was 33 percent, correct? 19 2.0 That's correct. Α. 2.1 Now, this updated exhibit is not an

actual illustration of how the wind offset would be treated under the Clean Power Plan, correct?

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24 Well, I mean, the final plan has changed 25 somewhat since the rules were finalized on August the

3rd of this year, so I think there's still a lot of discussion between the -- in the states, and states aren't going to have their final rules required until September of 2016. So I would say we can't tell at this time if this is the exact methodology that will be utilized in Ohio.

- Q. And in developing the updated exhibit, did MAREC review the technical support document from the EPA for Carbon Pollution Emission Guidelines for Existing Stationery Sources, Electric Utility

 Generating Units regarding State Plan Considerations?
- A. I missed some of that, could you repeat the question?
- Q. In developing Attachment 1, did MAREC review the technical support Document from the EPA for Carbon Pollution Emission Guidelines for Existing Stationery Sources, Electric Utility Generating Units Regarding State Planning Considerations?
- A. Again, this is -- we reviewed the data, but not the specific guidelines.
- Q. So the answer to my question is no, correct?
- A. Yes.

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Q. So MAREC did not review the EPA's methods and tools for quantifying avoided CO-2 emissions from

end-use energy efficiency and renewable energy?

A. I missed that again.

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- Q. Sure. So MAREC did not review the EPA's methods and tools for quantifying avoided CO-2 emissions from end-use energy efficiency and renewable energy?
- 7 A. I would say that I think that's correct, 8 yes.
 - Q. And, for example, MAREC -- strike that.

 So on the updated exhibit, MAREC took the total CO-2 emissions from Sammis, divided it by the total generation output from Sammis and wind combined, to come up with the 17.54 number, which is emissions -- CO-2 emissions from wind?
 - A. That is correct.
 - Q. Turning to page 3 of your amended supplemental testimony, and you state towards the bottom that "it does not appear that the applicant intends to provide a plan for compliance with pending environmental regulations," correct?
 - A. I'm sorry. What line is that?
- Q. Sure. I can't tell what line, but if you look at the question, "Does the applicant's plan provide."
- 25 A. Yes.

- Q. And then the second line down, it does not appear that the applicant intends to provide such a plan for compliance with pending environmental regulations in this proceeding. That's what I meant.
 - A. That's correct, yes.
- Q. Okay. And since your testimony, I think you just said that the final rules for the Clean Power Plan have been published, correct?
 - A. That is correct.
- Q. Have you reviewed the errata filed by Mr. Evans on September 14th, 2015?
 - A. I have not.

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- Q. And then turning to page 4 of your testimony, in the middle of the page, there's a paragraph that starts with "Other relevant testimony." You acknowledge on that page that you did not review the unredacted version of Mr. Evans' testimony where he discusses how Sammis can help Ohio meet the proposed Clean Power Plan, correct?
 - A. That's correct.
- Q. And is it fair to say that you also did not review the unredacted version of any errata that Mr. Evans filed on September 14th, 2015?
 - A. That's correct.
 - Q. And I believe you acknowledged earlier

that under the final rules for the Clean Power Plan,
Ohio will have a choice of what its state
implementation plan will be, correct?

A. There are various options.

MS. DUNN: Your Honor, I have no further questions.

Thank you, Mr. Burcat

EXAMINER ADDISON: Thank you.

Mr. Kurtz?

MR. KURTZ: Thank you, your Honor.

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12 CROSS-EXAMINATION

By Mr. Kurtz:

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Q. Just very briefly, Mr. Burcat. Good morning.

At the very beginning of your testimony, you described your organization as generally designed to promote renewables in the PJM footprint; is that correct?

- A. Yes.
- Q. Okay. What I want to do is ask you when you list ten of the nine PJM states plus the District of Columbia, I just want to ask you, I'm going to go state by state, tell me if there is a mandatory renewable portfolio standard by state to the extent

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And, by the way, will you define "mandatory renewable portfolio standard" before we start?

- A. Well, mandatory is not the word I was using.
 - Q. What word do you want to use?
 - A. I would say there are requirements in various states.
- Q. As opposed to voluntary, what should we call it? As opposed to voluntary, what is --
 - A. I would say required.
 - Q. Required RPS?
- 14 A. Yes.
- 15 Q. And what is a required RPS?
- 16 A. What is a required RPS?
- 17 Q. Yes.
 - A. It's a state statute or act. In some cases, it's actually implemented by a Commission or a public utility type commission in various states. So it doesn't necessarily have to come from statute if they have broad authority. But it's usually an escalating amount of renewable energy that must be purchased by the supplier of electricity to its customers.

Q. Okay.

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MR. O'DONNELL: Your Honor, may I just object on the grounds of vagueness. I think we're struggling with this term "requirement" that

Mr. Randazzo is using "mandated" and "required" RPS, because in Ohio -- or I shouldn't say in Ohio, just generally when it comes to the word "requirement."

Obviously, the Ohio RPS contains, in the first instance, what appears to be a requirement, "a utility shall," but then it contains a number of off ramps and caveats such as cost cap and force majeure provision, which, of course, the Commission has granted in the past.

So I think the word "requirement," since we are trying to define the term, might not necessarily describe the policy that we're trying to talk about here.

MR. KURTZ: That's why I asked the witness to describe what he meant by not mandatory but required. Anything as possessed to voluntary, that's what I want to get at. Is that good enough?

THE WITNESS: I think it is --

EXAMINER PRICE: Mr. Burcat, one moment.

Well, I agree that the witness has already provided a definition, and as long as we

have -- he understands the question as posed, I don't have an issue with this line of questioning as is.

Mr. O'Donell, if you have an objection, please do so prior to the witness giving an answer. That way, we can all make sure we're on the same page while I rule

6 on the objection.

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MR. O'DONNELL: Yes, your Honor.

- Q. (By Mr. Kurtz) So let's go by state.
- A. Okay.
- Q. And a nonvoluntary or required RPS standard, Delaware, yes, no, or you don't know?

 Delaware?
 - A. Delaware has an RPS that's not voluntary.
 - Q. So that's a yes? Is that a yes?
- A. Yes.
- 16 Q. Okay.

MR. MENDOZA: Objection. The question was about nonvoluntary or required, and so it's compound, and it's compounding the same problem that we've had here, which is we have --

MR. KURTZ: I'm trying to bend over backwards to be as clear as possible.

EXAMINER ADDISON: Just rephrase your question to use the definition or the word that he provided.

4958 1 (By Mr. Kurtz) The required RPS, as you Q. 2 have defined it, yes, no, or I don't know. Delaware? 3 I would say it's yes. Α. 4 Q. Illinois? Illinois is not in my territory. 5 Α. 6 So you don't know? Q. 7 Α. Well, I understand they have one, but I 8 don't know the details of it. 9 Ο. Is that a yes? 10 I can't answer that question. I don't Α. have the details. 11 12 Q. Indiana? 13 Α. It's not in my territory. 14 Q. Kentucky? 15 Not in my territory. Α. 16 Maryland? Q. 17 Α. That would be a yes. 18 Q. Michigan? 19 It's not in my territory. Α. 20 New Jersey? Q. 2.1 Α. Yes. 22 North Carolina? Q. 23 Α. Yes. 24 Ohio? Ο. 25 Α. Ohio is not the case at the moment since

4959 1 there's a freeze. And I would say the caveat that 2 Mr. O'Donnell presented previously applies in all of 3 these states. There are off ramps. There are ways 4 to -- like, for instance, in Delaware there's a cost 5 cap provision in that state and there are cost cap provisions in other states. 6 7 Q. Pennsylvania? 8 Α. Yes. 9 Tennessee? Ο. 10 It's not one of my jurisdictions. Α. 11 Q. Virginia? 12 Α. It's what they call a voluntary standard. So that would be a no? 13 Q. 14 Α. No. West Virginia? 15 Q. 16 That's a no. Α. 17 District of Columbia? Q. 18 That would be a yes. All with the same Α. 19 caveats. 2.0 MR. KURTZ: Thank you, sir. No further 2.1 questions. 22 EXAMINER ADDISON: Thank you, Mr. Kurtz. Mr. McNamee? 23 24 MR. MCNAMEE: I have no questions.

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you.

1 EXAMINER ADDISON: Any redirect,

2 Mr. O'Donnell?

MR. O'DONNELL: Yes, your Honor.

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REDIRECT EXAMINATION

By Mr. O'Donnell:

Q. Mr. Burcat, on the subject of mandates and requirements, Mr. Kurtz already elicited some of this information. Could you talk about why the word "mandate" might not be necessarily appropriate as commonly understood if -- well, if these portfolio standards as you described them have certain provisions that while they may appear mandatory, that word might be causing confusion.

MR. RANDAZZO; I'll object.

MS. DUNN: I'll object as well.

EXAMINER PRICE: Grounds?

MR. RANDAZZO: Improper form of the question. The question was, "Can you talk about this?" There's no way for us to anticipate and logically form an appropriate objection to the testimony when it's an invitation to the witness to just talk about stuff.

MR. O'DONNELL: I can rephrase it.

EXAMINER ADDISON: Thank you.

Q. (By Mr. O'Donnell) Mr. Burcat, why do you believe the term -- you've said to Mr. Randazzo you didn't think the term "mandate" was appropriate. Why not?

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A. I think for a lot of the reasons you spoke about. But generally that there are these off ramps. There are cost caps in states like Ohio, even though the RPS is frozen at the moment. There are states like Delaware with an off ramp, and there are other states in that required, but these state statutes are very complicated.

There are a number of provisions, especially respecting the costs of renewables that might be used, and so it's very hard to say that they are mandatory requirements on the utilities when they do have means to back out under certain circumstances.

MS. DUNN: Your Honor, I would move to strike Mr. O'Donnell's previous question before Mr. Randazzo's objection and Mr. Burcat's reference to what his counsel just said.

EXAMINER ADDISON: Mr. O'Donnell, do you have a response?

MR. O'DONNELL: I mean, I rephrased the question in accordance with the ruling from the

Bench, so I don't see why it needs to be stricken.

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MR. MENDOZA: What is the grounds of the motion to strike the counsel's statement?

MS. DUNN: The original question that he made was a narrative, and it was then objected to by Mr. Randazzo. Then he rephrased his question to ask an appropriate question, and then Mr. Burcat indicated "what my counsel just said," and he would have been referring to Mr. O'Donnell's previous narrative, which is why I'm asking to have the narrative stricken and his response, the first part of his response, which was "what he just said."

MR. O'DONNELL: Your Honor, I don't think the witness was referring to that at all.

EXAMINER ADDISON: At this time I'm going to deny the motion to strike. It seems a lot of the information that was covered during Mr. Burcat's response was also included in the line of questioning from Mr. Kurtz.

MS. DUNN: Thank you, your Honor.

EXAMINER ADDISON: Thank you.

Please proceed, Mr. O'Donnell.

Q. (By Mr. O'Donnell) Mr. Burcat, you testified on direct and were asked several questions about volatility. Do you have an opinion on price

1 | volatility of renewables versus nonrenewables?

MS. DUNN: Your Honor, I object that

that's outside the scope of my direct or cross-examination.

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MR. O'DONNELL: He was asked specifically about the graph that shows price volatility and was asked about volatility and whether he knew about Sammis' coal contracts and whether they are fixed or volatile. This is exactly the same subject of that question, your Honor.

MS. DUNN: Your Honor, if I may respond. The question Mr. O'Donnell asked was price volatility of renewables, and I never broached the subject of price volatility of renewables.

EXAMINER ADDISON: I tend to agree with Ms. Dunn. The objection is sustained.

MR. O'DONNELL: Thank you, your Honor.

Q. (By Mr. O'Donnell) Mr. Burcat, in your questioning by Ms. Dunn, you were asked about the price volatility of coal and, in particular, the Sammis plant. I believe you testified that you weren't aware of specific contracts that existed for the Sammis plant, but do you have an opinion on the general volatility of coal?

A. Yes.

MS. DUNN: Your Honor, I would also object on the basis that I asked him just very specific questions about whether he knew about coal contracts with Sammis. I did not open the door for questions about coal price volatility.

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EXAMINER ADDISON: Mr. O'Donnell?

MR. O'DONNELL: She asked if he has an

opinion on -- he testified on direct about price volatility of coal. She asked about coal contracts. I think it's only fair that he's able to provide the basis for his opinions since she asked the question.

MS. DUNN: Your Honor, if I may respond.

EXAMINER ADDISON: Of course, Ms. Dunn.

MS. DUNN: My three specific questions were: Do you know what Sammis pays for coal? Do you know what contracts Sammis has? And do you know what contracts it will have in the future? None of those questions opened the door to discuss coal price volatility.

MR. O'DONNELL: Your Honor, the original foundation for the question had to do with the volatility shown in the graph.

EXAMINER ADDISON: Thank you, both. I'm going to allow the question. There was references to Mr. Burcat's testimony on page 7 of his direct

testimony as to the Sammis plants' exposure to coal price fluctuations.

Do you need to have that question reread, Mr. Burcat?

THE WITNESS: I think I do at this point.

EXAMINER ADDISON: Could we have the last question reread, please.

(Record read.)

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A. Yes. Well, first of all, in regards to that question, coal prices as opposed to wind, energy and solar energy are not something that you could determine today. So even those contracts, most contracts for coal are usually passing through the pricing of coal, and that creates volatility.

And there's all sorts of factors related to that, but certainly a 15-year purchase power agreement is so far out into the future that there's bound to be some significant price volatility with coal.

On the other hand, when you're talking about wind energy, when a purchase power agreement is signed and executed, you know the price of the wind energy throughout the term of the contract, it's almost 100 percent stable because you know exactly what that price is, and it usually is fairly level

throughout the term, and there might be a small incremental inflation adjustment in some contracts.

It depends on the negotiations. But it acts as a significant hedge to the pricing of a -- pricing from fossil fuels, like coal and natural gas, that have historic volatility as shown in that graph.

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MS. DUNN: Your Honor, I would move to strike everything after the "on the other hand" when he discusses renewable energy. The question from Mr. O'Donnell asked for coal fluctuations or volatility, and he answered that and went on to discuss renewable.

Previously you did not allow a question about renewable energy and the volatility because I did not open the door, so that should be stricken as well.

EXAMINER ADDISON: Mr. O'Donnell.

MR. O'DONNELL: I think when asked about volatility, it's perfectly appropriate to draw contrast between a fuel source that has volatility and one that doesn't. It's part and parcel of the same question.

EXAMINER ADDISON: I agree with Ms. Dunn. Motion to strike will be granted for everything after "on the other hand," starting with "on the other

hand."

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Please continue, Mr. O'Donnell.

MR. O'DONNELL: Thank you, your Honor.

Q. (By Mr. O'Donnell) Mr. Burcat, you were asked about the Clean Power Plan and the proposal's impact on the Clean Power Plan and the work MAREC did to analyze that. Can you outline why you believe wind energy would help this proposal and its compliance with the Clean Power Plan?

MR. RANDAZZO: I object.

EXAMINER ADDISON: Grounds?

MR. RANDAZZO: Leading question.

EXAMINER ADDISON: Would you care to rephrase, Mr. O'Donnell?

- Q. (By Mr. O'Donnell) Mr. Burcat, do you think that the MAREC proposal helps this plant's compliance with the Clean Power Plan?
- A. Absolutely. That's the whole basis of my testimony.
 - Q. And why do you believe that, sir?
- A. Because of the zero-emitting resource that wind is and when combined with and basically used as an offset to the coal, the emissions, the requirement emissions from the coal plant, it acts as a significant offset as our schedule shows in the

supplemental testimony.

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Q. Thank you, Mr. Burcat. Follow-up question. Do you believe that there are any prior decisions of this Commission that also support that interpretation?

MS. DUNN: Your Honor, I object. That's outside the scope of my direct -- or excuse me, cross-examination, and also as Mr. O'Donnell just indicated, it was a follow-up to his last question, so it's not appropriate on redirect.

EXAMINER ADDISON: Objection sustained.

MR. O'DONNELL: I don't have any further questions.

14 EXAMINER ADDISON: Thank you,

15 Mr. O'Donnell.

16 Mr. Randazzo?

MR. RANDAZZO: I do.

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19 RECROSS-EXAMINATION

20 By Mr. Randazzo

Q. Sir, your counsel asked you about your proposal and how it might help with regard to compliance with the Clean Power Plan, otherwise known as the EPA's regulations to reduce the amount of carbon dioxide emissions, correct?

1 MR. MENDOZA: Objection.

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EXAMINER ADDISON: Grounds?

MR. MENDOZA: I think that name for the regulation was invented by counsel.

EXAMINER ADDISON: Care to rephrase,
Mr. Randazzo.

- Q. (By Mr. Randazzo) Sir, you agree the Clean Power Plan that your counsel referenced to you involves regulations to reduce the emissions of carbon dioxide?
- 11 A. It does. And one of its main building 12 blocks is wind and solar energy to get there.
 - Q. And your proposal is focused on wind, right?
 - A. Our proposal is focused on wind.
 - Q. Do you know how many megawatts of renewable resources have been certified by the state of Ohio to obtain RECS? First of all, so Mr. Mendoza doesn't object, do you know what a REC is?
 - A. You're asking me what a REC is?
 - O. Yes.
 - A. Renewable energy credit.
- Q. Yes, sir. So do you know how many
 megawatts of renewable resources have been certified
 by the state of Ohio to receive renewable energy

credits?

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A. Well, presumably some of it is coming from out of state, so I don't know. I know it's coming from in state, which is just over 300 megawatts of --

Q. Of what?

A. Of wind energy, and then it's the 880,060 hours times that to get to the megawatt-hours.

Q. I asked you about megawatts.

A. I told you what megawatts is, just over 300 megawatts.

Q. And it's your understanding --

A. But that's not what's coming from out of state.

Q. It's your understanding --

MR. O'DONNELL: I'm going to object.

Also, it's unclear if he's talking about megawatts that are permitted or sited or operational. I think he said certified at one point. There's just a lot of metrics here.

MR. RANDAZZO: This is the witness that said his proposal would help reduce the carbon dioxide emissions. So we're going to find out a little bit what his proposal actually does.

EXAMINER ADDISON: That's correct,

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

Mr. Randazzo. But make sure the record is clear enough so the record can be clear.

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MR. RANDAZZO: Your Honors, I asked him if he was aware of how many megawatts of renewable energy resources have been certified by the state of Ohio.

7 EXAMINER ADDISON: And he answered that 8 question.

MR. RANDAZZO: I don't know how I can make it any clearer.

- Q. (By Mr. Randazzo) Do you know the answer?
- A. I'm assuming that what they're certifying is the megawatt-hours, but not specifically the megawatts.
- Q. Have you had occasion to review the Public Utilities Commission of Ohio's website to identify the total renewable energy credits measured in capacity that have been certified by the state of Ohio?
- A. If that's -- no, I'm not sure it would be labeled that particular way.
- Q. And would you accept, subject to check,
 that total renewable energy credits certified by the
 state of Ohio is in excess of 5000 megawatts?

4972 MR. O'DONNELL: Objection. A REC is not 1 2 a megawatt. 3 EXAMINER ADDISON: Please rephrase. 4 MR. O'DONNELL: A REC is a megawatt-hour. 5 EXAMINER ADDISON: Please rephrase, Mr. Randazzo. 6 7 (By Mr. Randazzo) Are you aware that the 8 total renewable energy capacity that has been certified by the state of Ohio to receive RECS is in 9 10 excess of 5000 megawatts? I am not aware of that number, whatever 11 12 it means. 13 Ο. Do you know what percentage of those renewable energy resources are solar? 14 15 Α. No, I do not. 16 Is solar a zero-emission resource? Ο. 17 Yes, it is. Α. 18 Is hydroelectric generation capability a 19 zero-emitting resource? 2.0 MR. O'DONNELL: Your Honor, I want to 2.1 object again. He represents MAREC. He's focused on 22 the wind industry. This is not the subject of his 23 testimony or any of the questions here today.

like to object. We've gone beyond the scope of

MR. MENDOZA: Your Honor, I'd further

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redirect. He started off asking about questions that were specifically about the Clean Power Plan, which I think was permissible. Now, we're talking about aspects of renewable energy that he could have asked on the first go-around.

EXAMINER ADDISON: I tend to agree. Let's move on, Mr. Randazzo.

- Q. (By Mr. Randazzo) Sir, do you know whether -- have you done any analysis to determine whether or not the nonwind renewable resources might provide a basis of compliance for the Clean Power Plan that is less expensive than your proposal?
 - A. I have not.
 - Q. Why not?

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A. I mean, we're early in this process, and wind energy under the Clean Power Plan, especially the final rule that's been laid out on August 3rd, indicates that wind is an extremely cost-effective way of complying with, in part, the Clean Power Plan.

I've seen studies out there that
basically say it, and the problem with -- you know,
although solar is an excellent resource, as far as
I'm concerned, you cannot deploy it in anywhere close
to the volumes that you can employ wind in a
cost-effective way.

4974 1 0. Now, your counsel asked you about 2 volatility of renewable resources. Do you recall 3 that question? 4 Α. Yes. 5 MR. O'DONNELL: Your Honor, I believe the question wasn't permitted. 6 7 EXAMINER ADDISON: That's correct, 8 Mr. Randazzo. 9 MR. RANDAZZO: I thought the question was 10 permitted up to the point where the witness answered 11 beyond the scope of the permissible question. Where 12 the witness was not permitted to go was to talk about 13 volatility in coal. 14 MR. O'DONNELL: No. 15 EXAMINER ADDISON: I believe it may have 16 been the opposite of that, correct? 17 MR. O'DONNELL: We'll object because we 18 weren't allowed to ask that. 19 MR. RANDAZZO: I'll withdraw the 2.0 question. 2.1 EXAMINER ADDISON: Thank you. 22 Q. (By Mr. Randazzo) Do you agree that the 23 Clean Power Plan imposes an obligation on states to 24 submit a statewide compliant plan? 25 Α. Yes.

Q. Have you done any analysis to determine how your proposal could be integrated into a statewide compliance plan?

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- A. I think that is something that's going to be determined by the state.
- Q. I asked you if you've done any analysis to determine how your proposal would be integrated into a statewide plan.
- A. We have not done an analysis on that, but I feel certain that it could be integrated into a state compliance plan.
- MR. RANDAZZO: Your Honor, I move to strike after when he began to say "I feel certain it could be."
- 15 EXAMINER ADDISON: Mr. O'Donnell.
 - MR. O'DONNELL: He was asked if he had done an analysis, and he provided the analysis that he believes could easily be integrated into a plan. That's answering the question. That's not going outside the scope of anything.
 - EXAMINER ADDISON: I don't think he's saying he provided an analysis, but I'm going to deny the motion to strike.
 - Q. (By Mr. Randazzo) Are you aware that there are generating units in the state that are not

4976 1 owned and operated by investor-owned utilities? 2 Α. Yes. 3 Would those also be subject to potential Q. 4 impact from the Clean Power Plan? 5 Α. It's a statewide plan, yes. Would municipal electric utilities also 6 7 be subject to the Clean Power Plan? 8 Α. Yes. That's assuming they own 9 generation. 10 Have you done any analysis to determine Ο. 11 how your proposal would affect the compliance options 12 that are available to the state? I've not done a specific analysis on 13 Α. that. 14 15 Have you done any analysis? Q. 16 Α. No. 17 MR. RANDAZZO: Thank you. That's all I 18 have. 19 EXAMINER ADDISON: Thank you. 2.0 Mr. Mendoza? MR. MENDOZA: No questions, your Honor. 2.1 22 EXAMINER PRICE: Ms. Petrucci? 23 MS. PETRUCCI: No questions. 24 EXAMINER PRICE: Mr. Sauer? 25 MR. SAUER: No questions, your Honor.

4977 1 EXAMINER ADDISON: Ms. Dunn? 2 MS. DUNN: Thank you, your Honor. 3 4 RECROSS-EXAMINATION 5 By Ms. Dunn: Mr. Burcat, you don't know whether Sammis 6 has long-term fixed contracts for coal, correct? 7 8 MR. O'DONNELL: Objection. She already 9 asked the question. 10 MS. DUNN: It's a different question, 11 your Honor. 12 EXAMINER ADDISON: I'll allow the 13 question. 14 I do not know that answer, yes. Α. 15 Q. And you have a yellow pad up there with 16 you today, correct? 17 Α. Yes, I do. 18 And does that yellow pad contain notes 0. 19 that you brought up there with you today? 2.0 Yeah. I jotted down a few notes before I Α. 2.1 walked up here, like any witness would. 22 Q. In responding to Mr. O'Donnell's questions on redirect, you were referring to those 23 24 notes? 25 A. I was not.

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                  MR. DUNN: Thank you, your Honor. I have
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      no further questions.
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                  EXAMINER ADDISON: Thank you.
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                  Mr. Kurtz?
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                  MR. KURTZ: No questions.
                  EXAMINER ADDISON: Mr. McNamee?
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                  MR. MCNAMEE: No questions. Thank you.
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                  EXAMINER ADDISON: Mr. Burcat, you're
      excused.
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                  THE WITNESS: Thank you.
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                  EXAMINER ADDISON: Thank you.
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                  Mr. O'Donnell, would you like to move for
      the admission of MAREC Exhibits 1 and 2 into the
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      record?
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                  MR. O'DONNELL: So moved, your Honor.
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                  EXAMINER ADDISON: Any objections?
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                  Thank you. Hearing none, MAREC Exhibit 1
      and No. 2 will be admitted.
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                  (EXHIBITS ADMITTED INTO EVIDENCE.)
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                  EXAMINER ADDISON: Let's go off the
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      record for a moment.
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                  (Discussion off the record.)
                  EXAMINER PRICE: Mr. Mayes, you may call
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      your witness.
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                  MR. MAYES: I'm Jeffrey Mayes, general
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counsel of Monitoring Analytics, acting in the capacity as the independent market monitor for PJM.

I have with me Dr. Bowring. Dr. Bowring is the president of Monitoring Analytics, and he is also the market monitor for PJM as defined in the PJM tariff.

(Witness sworn.)

EXAMINER PRICE: Dr. Bowring, please state your name and business address for the record.

THE WITNESS: Joseph Bowring. We are in Norristown, Pennsylvania, 19066.

12 EXAMINER PRICE: Thank you.

Please proceed, Mr. Mayes.

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JOSEPH E. BOWRING

being first duly sworn, as prescribed by law, was
examined and testified as follows:

18 DIRECT EXAMINATION

19 By Mr. Mayes:

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Q. The market monitor filed testimony on December 22nd, 2014. Do you have a copy of that testimony, Dr. Bowring?

A. Yes.

MR. MAYES: I would move for -- I would like to mark that testimony as IMM-1.

4980 EXAMINER PRICE: It will be so marked. 1 2 (EXHIBIT MARKED FOR IDENTIFICATION.) 3 So, Dr. Bowring, is this testimony that Q. 4 you prepared? 5 Α. Yes. Do you have any corrections? 6 Ο. 7 Α. No. 8 Would your answers be the same today as Q. 9 they were then? 10 Α. Yes. MR. MAYES: I would move to enter into 11 12 the record the direct testimony of Joseph E. Bowring 13 on behalf of the Independent Market Monitor for PJM. 14 EXAMINER PRICE: We'll defer ruling of your motion for admission until complete with 15 16 cross-examination. 17 Ms. Bojko. 18 MR. KUTIK: Your Honor, before we begin, I have a motion to strike. 19 2.0 EXAMINER PRICE: Mr. Kutik. 2.1 MR. KUTIK: Your Honor, the companies 22 would move to strike starting on page 3, line 13, the sentence beginning with the word "both" and the 23 24 footnote it relates to, footnote 1 to that page. 25 This seeks to characterize the decisions

in the two cases cited, and similar to the discussion that was had with respect to OCC Witness Ferrey, it is improper for parties to render opinions as to what happened or what was decided in particular cases.

Witnesses are supposed to provide either facts or opinions on their expertise. Issues with respect to legal matters are for the Commission to decide, and particularly the interpretation of cases with respect to -- and particularly with respect to interpretation regarding the Federal Power Act, which is what these cases related to. So on those grounds, we move to strike.

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EXAMINER PRICE: Mr. Mayes, response?

MR. MAYES: We object. We think that

that sentence is fine. It states his opinion on

these cases as they relate to consistency with

competition, and so it's not just about the legal

finding of those cases. It's about the relevance of

those cases to competition.

And I would note that we have had a lot of discussion, even just today, about what has been going on in other states. So it seems that the companies have already conceded these sorts of things are relevant to their case.

MS. BOJKO: Your Honor, may I be heard?

EXAMINER PRICE: Ms. Bojko.

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MS. BOJKO: Your Honor, Judah Rose footnote 1 and 11 of the companies' testimony cited to the recent District of Columbia Circuit Case, DC Circuit Case regarding capacity performance and regarding issues before the Federal Energy Regulatory Commission, OEG Witness Baron.

EXAMINER PRICE: Ms. Bojko, slow down.

And who objected to that footnote?

MS. BOJKO: I don't know, your Honor, because it's typically in this situation that people can give regulatory opinions of what goes on in other regulatory jurisdictions and the company did it.

EXAMINER PRICE: So there was no ruling on that footnote; is that correct?

MS. BOJKO: Not to my knowledge, your Honor. It was allowed in the record and consistent with it being allowed into the record, other witnesses testifying on similar subject matters should also be able to have their opinion heard and in the record.

The Commission should want a complete docket, a complete evidentiary record in which to base its decision, and that includes counterarguments to the exact thing raised by the companies in their

testimony, and that's exactly what the intervenors did. They filed testimony in response to the companies' testimony.

instance of us denying a motion to strike, I'll hear it. But if it's an instance of nobody made a motion to strike, therefore, you should allow this, I don't think that's an analogous situation. You can put the question to the Bench, and so you didn't get a ruling.

MS. BOJKO: I believe in your companies' Witness Strah, if I recall correctly, footnotes 1, 2, and 3, discussions of the New York State Commission decisions in those cases, there was a motion to strike that was denied.

EXAMINER PRICE: Fair enough.

Mr. Kutik, care to respond to that?

MR. KUTIK: Yes, your Honor. The

20 testimonies is that the witness was describing the

Commission -- or what was happening in those

21 facts and circumstances of those cases and what the

22 proposal was with respect to those facilities at

23 issue in those cases. Here the witness is giving his

24 opinion on what these cases said in terms of the

25 matters of the law.

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MR. MAYES: Your Honor, the market monitor is willing to agree the purpose of that statement can be confined to the same purpose the companies used to support their reference to a case.

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MR. KUTIK: This doesn't describe the facts or the proposals that were at issue in those cases.

MR. MENDOZA: Your Honor, if I may.

EXAMINER PRICE: Mr. Mendoza.

MR. MENDOZA: The entire statement the witness is offering that subsidies for generation in this case are similar to those that were overturned by the Third and Fourth Circuit in those other cases, and I think this is an important issue for the Commission to consider, and this is an important witness who can talk about those issues.

And I think the key part of that sentence is that he alleges that the subsidies are analogous, which is a factual claim, and he's just adding that last clause after both is just a summary of the holdings of those cases, and it's true that those are legal conclusions, but it gives context to the factual claim he's making.

And I would note, like Ms. Bojko, that many of their witnesses have -- many of the

companies' witnesses have included discussions of case law in their testimony.

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MR. KUTIK: And none of those, your
Honor, were objected to. And we are not objecting,
your Honor, to his analogy to what was happening in
New Jersey or Maryland, nor are we objecting, at
least at this point, for parties to be able to argue
whatever they want to argue about the two cases that
they cite here in footnote 1. The point is that
that's a subject of briefs. It's not a subject of
testimony.

MR. MAYES: Your Honor, that statement represents the witness' opinion on the meaning of those cases, and it's very relevant to his testimony here.

EXAMINER PRICE: That's Mr. Kutik's point, that he's drawing a legal conclusion. I don't think --

MR. MAYES: No, the meaning in the sense -- with the meaning in the sense of competitive markets, not a legal conclusion. We're willing to concludes it does not represent a legal conclusion.

MR. KUTIK: Your Honor, what this will force me to do if you don't strike it, is I will then present to this witness the opinions in those cases

and discuss what those cases say and don't say,
which, again, is more appropriate for briefs rather
than cross-examination.

EXAMINER PRICE: Now, you've just said

something that would really interest the Bench.

Okay. We're going to grant the motion to

strike, although, I'm very intrigued by Mr. Kutik's possibilities. We're going to grant the motion to strike.

MR. KUTIK: You can look forward to the briefs.

EXAMINER PRICE: We'll have an opportunity to do some briefs, so the motion to strike will be granted.

Any other further motion to strike?

MR. KUTIK: No, your Honor.

EXAMINER PRICE: Ms. Bojko.

MS. BOJKO: Thank you, your Honor.

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CROSS-EXAMINATION

21 By MS. Bojko:

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- Q. Good afternoon, Mr. Bowring.
- A. Good afternoon.
- Q. My name is Kim Bojko, and I represent the
 Ohio Manufacturers' Association's Energy Group in

this proceeding.

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On page 2 of your testimony on lines 3 and 5, you use the term "FirstEnergy." What do you mean by the use of FirstEnergy in this context?

- A. When I use the term "FirstEnergy," I'm referring to the entirety of the FirstEnergy companies all owned by the single parent company.
- Q. And, sir, why do you use the term
 "FirstEnergy" interchangeably throughout the
 testimony to refer to both the companies' provisions
 as well as the FirstEnergy Corp.?

MR. KUTIK: Objection.

EXAMINER PRICE: Grounds?

MR. KUTIK: Well, your Honor, as the Bench is aware, OMA really has no adversity to the subject matter of this witness' testimony, and at this point, the question is designed to elicit friendly cross.

EXAMINER PRICE: I think Ms. Bojko is fully aware of the prohibition on friendly cross. It doesn't sound like a very friendly question to me.

MR. KUTIK: I'll guarantee the answer will be friendly, your Honor.

EXAMINER PRICE: Let's hear the answer and, then we'll go from there.

1 MR. KUTIK: Fair enough, your Honor.

A. So if I remember, you're asking why I interchangeably used these terms?

O. Yes.

A. Because there's one company here, one company making decisions, and that's really the essence of the case, one company with different affiliates shifting costs between the two.

MR. KUTIK: Move to strike.

EXAMINER PRICE: Granted.

MS. BOJKO: The entirety of the answer,

your Honor?

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EXAMINER PRICE: Yes.

MS. BOJKO: I think he's entitled to explain what terms he uses and why he's using it and in what context.

EXAMINER PRICE: I think you demonstrated Mr. Kutik's point, this is friendly cross. If you have adverse questions to ask this witness because you are adverse, both parties are adverse to what each other's position is, if you have adverse questions to ask this witness, you should ask them now.

MS. BOJKO: Your Honor, it was a clarifying question of what is meant by terms in the

1 testimony.

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2 EXAMINER PRICE: I've made my ruling,

3 Ms. Bojko. It's time to move on.

Q. (By Mr. Bojko) Sir, would you oppose rider RRS, even if it turned out to be profitable for ratepayers for the entire term of the PPA?

A. Yes.

Q. Are you opposed to renewable purchase power agreements, sir?

MR. KUTIK: Objection.

EXAMINER PRICE: I want to hear the answer to this one. Overruled.

A. I'm not sure that's a well-defined term, but if it looked like this, then yes.

EXAMINER PRICE: Are you opposed to renewable mandates?

17 THE WITNESS: As a general matter, I'm
18 opposed to subsidies that affect market outcomes.

EXAMINER PRICE: Do you believe a renewable portfolio standard or renewable mandate depending on your choice of term is a subsidy?

THE WITNESS: Yes.

EXAMINER PRICE: Thank you.

Q. (By Ms. Bojko) And, sir, do you believe that the renewable PPAs may serve a different purpose

4990 1 to meet such things as mandates? 2 MR. RANDAZZO: I object. 3 EXAMINER PRICE: Grounds? 4 MR. RANDAZZO: It's redirect on your Honor's cross-examination. 5 6 MR. KUTIK: I'd join. 7 EXAMINER PRICE: Overruled. I think we 8 may have found a position that this witness is 9 adverse to OMAEG. 10 MS. BOJKO: I don't know about that 11 characterization, your Honor. 12 MR. KUTIK: If that's not true, your 13 Honor, I would object. 14 MR. RANDAZZO: Somebody is wrong here. 15 EXAMINER PRICE: Well, we'll allow this 16 one. 17 THE WITNESS: All right. Sorry. Could 18 you give me the question again? 19 EXAMINER PRICE: Let's read the question 2.0 back, again. 2.1 (Record read.) 22 So if the question is if renewable 23 portfolio standards are a response to mandates or a 24 form of implementing mandates, then that's true,

they're implementing mandates.

4991 1 MS. BOJKO: Your Honor, I have no further 2 questions. Thank you. 3 EXAMINER PRICE: Mr. Mendoza? 4 MR. MENDOZA: No questions, your Honor. 5 EXAMINER PRICE: I'm coming back to the signatory parties after the nonsignatory parties. 6 7 Mr. Petricoff? 8 MR. PETRICOFF: No questions, your Honor. 9 EXAMINER PRICE: Mr. O'Brien? 10 MR. O'BRIEN: No questions, your Honor. 11 EXAMINER PRICE: Mr. Sauer? 12 MR. SAUER: No questions, your Honor. 13 EXAMINER PRICE: Mr. Randazzo? 14 MR. RANDAZZO: Just a couple. 15 16 CROSS-EXAMINATION 17 By Mr. Randazzo: 18 Dr. Bowring, welcome to Ohio. Ο. 19 Α. Thank you. 2.0 Q. Counsel, Ms. Bojko, to my right actually 2.1 took most of my questions. Thank you. 22 But with regard to renewable mandates or 23 standards or requirements, can those also have 24 impacts on the available cash flow to other 25 generation technologies?

4992 1 MR. MENDOZA: Objection. Compound. 2 EXAMINER PRICE: Let's have the question 3 back again. 4 MR. RANDAZZO: I'll try again. EXAMINER PRICE: 5 Okay. MR. RANDAZZO: I don't know what's 6 compound about it, but I'll try again. 7 8 (By Mr. Randazzo) With regard to state Q. 9 portfolio mandates, can compliance with those 10 mandates impact the available cash flow to nonmandated generating technologies? 11 12 Α. Yes, to the extent that they're 13 subsidies, which I believe they are, subsidies change the outcome of competitive markets, and when other 14 15 sources of supply are mandated and subsidized, it 16 tends to reduce prices and, therefore, reduces 17 revenues to other forms of generation. 18 And is it true that in the PJM wholesale 0. 19

- structure that at times wind resources have been negative prices into the wholesale market?
- Wind resources at times have offered in at negative prices, yes.
 - And have they cleared at negative prices? 0.
- Α. Yes.

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Q. Which when wind, a resource clears in the

PJM market, that means it's been accepted for dispatch, correct?

A. Yes.

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- Q. And would you regard that, in other words, the ability of a particular type of generating technology to bid a negative price and be accepted by PJM, to be an anti-competitive condition?
- A. It's a result of subsidies. Those subsidies are affecting market outcomes, and in this case resulting in lower prices and lower revenues to other forms of generation.
- MR. RANDAZZO: That's all I have. Thank you very much.
- 14 EXAMINER PRICE: Thank you.
- 15 Mr. Kurtz?
- MR. KURTZ: Thank you, your Honor.
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- 18 CROSS-EXAMINATION
- 19 By Mr. Kurtz:
- Q. Good afternoon, Dr. Bowring.
- You filed essentially identical testimony
- 22 in the AEP case as you did in this case, is that
- 23 correct?
- A. Very close, yes, same points.
- Q. And you were deposed in both cases.

A. Yes.

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- Q. Am I correct that in your AEP deposition, you testified that you had not reviewed -- that you did not know that Ohio allowed for CWIP on new generation built by a distribution utility?
 - A. I was not asked that question.
- Q. Before you filed testimony, did you review 4928.143, the ESP statute?
 - A. No.
- Q. Will you turn to page 4 of your testimony. I want to read just a short two sentences beginning on line 4 to put things in a little bit of context.

You testify that "A sustainable market design means a market design that results in appropriate incentives to retire units and to invest in new units over time such that reliability is ensured as a result of the functioning of the market. There are at least two broad paradigms that could result in such an outcome."

Did I read that correctly?

- A. Yes.
- Q. Then you describe the market paradigm, the next couple sentences, which has most importantly an energy and capacity market; is that correct?

A. Yes.

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- Q. Then you describe a quasi-market paradigm where energy is procured in the market, in the LMP, but that capacity or need for investment is done through long-term-contract model or the cost-of-service model; is that correct?
 - A. Yes.
- Q. Okay. What I'd like to do is -- are these generally the market paradigm or the quasi-market paradigm by state, or do you have both within a state?
- A. It's possible they're both within a state.
 - Q. Okay. Let me go by state in PJM and tell me if that state is a market paradigm, a quasi-market paradigm, or something different, or both. Delaware?
 - A. Okay. So maybe -- I'm not sure I'm going to be able to give you a comprehensive answer. I'm not sure I've thought about whether every state is best characterized by market or quasi-market. I'll be happy to respond to that question, but I'm not sure I can do it accurately sitting here.
 - Q. Can you respond as to Delaware? Is that a market paradigm or quasi-market paradigm?
 - A. I don't evaluate state by state. I'm

interested in the broader PJM market which, as you know, incorporates multiple states. So if you're asking whether in Delaware there's some quasi-market elements, sure. There are other subsidies to forms of generation in probably almost every state in PJM.

- Q. Okay. Well, I want to understand your testimony, and ultimately I want to understand where Ohio fits into these two paradigms. Delaware allows for customer choice, correct?
 - A. Yes.

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- Q. And do the investor-owned utilities still own generation, or are they divested?
 - A. I think generally they're divested.
 - Q. Why wouldn't that be a market paradigm?
- A. Generally it is. There are -- to the extent that Delaware has RECS, then that's a nonmarket. We're talking about subsidies there, so there are lots of exceptions across the footprint of PJM; but, nonetheless, PJM is broadly characterized by the market paradigm, but there are clearly exceptions. It's not a perfect market paradigm.
- Q. Does Delaware have municipal utilities or rural electric cooperatives that still own generation and they do not allow customer choice for those customers?

A. Yes.

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- Q. Illinois, is that generally market paradigm or quasi-market paradigm?
- A. As I said, I can give you a better answer -- if you're interested in a detailed answer from me, I can give it to you afterwards. If you want me to go through this state by state, we could do that. As I said, every state has elements of quasi-market, particularly to the extent that they allow for solar and nonsolar renewable RECS.
 - Q. I do want to go state by state.
 - A. That's fine.
- Q. Illinois, is that market paradigm or quasi-market paradigm?
 - A. Generally market.
 - Q. Does Illinois have municipal or cooperative utilities that still own generation and do not allow for customer choice?
 - A. Yes.
 - Q. Indiana, market paradigm or quasi-market paradigm?
- A. Generally quasi-market. It depends on what you mean -- I assume you mean the entire state?
- Q. They have no customer choice for investor-owned or any utility customers, correct?

A. Yes.

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- Q. Kentucky?
- A. There are elements of market, but there's certainly elements of quasi-market.
 - Q. There's no overall customer choice in Kentucky, is there?
 - A. I'm not sure. I didn't define the quasi-market paradigm having to do with customer choice. I don't recall.
- 10 O. Well --
- 11 A. I don't believe that was the premise of your question.
- Q. Okay. Does Kentucky procure resources
 through long-term contracts or cost-of-service
 regulation?
- 16 A. Yes.
- 17 Q. So why --
 - A. I'm sorry. Kentucky itself, as a state obviously doesn't do that, just to be clear.
 - Q. Do the investor-owned cooperative and municipal-owned utilities in Kentucky procure generation through the cost-of-service model?
- 23 A. Yes.
- Q. So that would be the quasi-market paradigm?

- A. Unless to the extent they're relying entirely on that. They also participate in markets, so it's not entirely quasi-market.
- Q. Well, even -- let's take Maryland, market paradigm or quasi-market paradigm?
- A. Maryland also has -- Maryland also has -- Maryland also has cooperatives.
- Q. They have cooperatives that own generation and do not have customer choice, but the rate -- but the investor-owned utilities have divested, and there is choice.
 - A. Yes.

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- Q. So would that be for the investor-owned utilities the market paradigm?
 - A. Generally, yes.
- Q. Here's a good one. Michigan where they have 10 percent shopping and 90 percent cost of service, how would you characterize that one?
- A. As you know, only a very tiny part of Michigan is in PJM, but as a general matter, the state I would say is not in the market paradigm.
 - Q. The M portion of INM, Indiana-Michigan --
- 23 A. Yes.
 - Q. The M portion of INM, which is Indiana and Michigan Power, which is an AEP affiliate, so

that part of the state would be -- well, let's -- New Jersey, market paradigm, quasi-market?

- A. There are munis in Maryland as well, but generally market.
- Q. So the investor-owned utilities have divested. There is choice for the ratepayers of the investor-owned utilities in New Jersey?
 - A. Yes.

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- Q. But they have municipal utilities that still own generation and there is no customer choice.
 - A. For those customers.
- Q. All the municipal utilities that own generation in PJM, they do participate in the energy and capacity markets, do they not?
- A. Yes. I'm sorry. So as you know, there are some exceptions, and anyone who elects to be an FRR entity is not participating in the capacity market, although they are participating in the energy market and are subject to reliability rules.
- Q. Well, the only FRR fixed resource requirement entities in PJM are only the AEP affiliates, Appalachian Power, Indiana-Michigan, Kentucky Power, and, I guess, Duke Energy Kentucky as well is an FRR, correct?
 - A. I'm not sure what your question is.

- Q. Well, you were making a distinction that FRR entities do not participate in the capacity markets, and I was just naming the FRR entities that I know.
- A. Okay. That was not an exhaustive list, if that's your question.
- Q. Okay. FRR entities can participate in the capacity market if they meet certain reserve requirements. Isn't there an extra 3 percent holdback they have to get over before they can participate?
- A. FRR entities do not generally participate in the capacity market. They are allowed to buy if they need to or to sell a small amount of excess capacity in the market, but it's recognized that any more than that would be an inappropriate subsidy intervention in the market and, therefore, they're not allowed to.
- Q. PJM-wide is 1,300 megawatts that the FRR entities are allowed to participate in the market.
- A. I'm not exactly sure what the number is, but it's fairly small.
- Q. North Carolina, is that a market paradigm or quasi-market paradigm?
 - A. Only a small part of North Carolina is

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PJM, but I would say that's generally nonmarket or quasi-market.

Q. Ohio?

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- A. Generally market paradigm.
- Q. How would you know that if you had not reviewed the ESP statute before filing your testimony?
- A. Since I haven't reviewed it, I'm not sure how to answer the question. I'm not sure what it has to do with your question to me about whether it's market or quasi-market. My definition has nothing to do with your statute.
- Q. Well, do you recognize from your deposition or elsewhere that under Ohio law, investor-owned utilities are allowed to build power plants and charge customers on a nonbypassable cost-of-service basis?
- A. I recognize that, but I also don't recall the last time that occurred.
- Q. Well, it has not occurred -- well, it has for renewables. But let me go back to my question.

 Your position is that Ohio is a market paradigm state?
- A. Generally.
- Q. Okay. Yet when writing this testimony,

5003 you had not reviewed the ESP statute to form a basis 1 for that conclusion, correct? 2 3 MS. BOJKO: Objection, your Honor. 4 EXAMINER PRICE: Grounds? 5 MS. BOJKO: It's argumentative. EXAMINER PRICE: It's asked and answered. 6 7 MS. BOJKO: That too. 8 Pennsylvania, quasi-market paradigm or --Q. 9 Generally market paradigm. Α. But Pennsylvania does have municipal 10 Q. utilities that have cost-of-service generation? 11 12 Α. Yes. 13 Ο. And that cost-of-service generation does 14 participate in the PJM capacity markets? Α. 15 Yes. 16 Tennessee, quasi-market or market? Q. 17 Quasi-market. Α. 18 Is TVA allowed to participate in the PJM Q. 19 capacity markets, or is that selling outside of the 2.0 fence, so to speak? 2.1 Any entity that has generation can 22 participate in the PJM market, including TVA. 23 That's a huge utility, that's a huge Q. enterprise, correct? 24

MS. BOJKO: Objection.

5004 1 How big is TVA's --Q. 2 EXAMINER PRICE: Pending objection. 3 Grounds? 4 MS. BOJKO: He just rephrased. I mean, 5 he's testifying instead of asking the witness questions. Assumes facts not in evidence. 6 7 Q. (By Mr. Kurtz) Do you know how many 8 megawatts TVA has? 9 Α. I do not. 10 Virginia, market paradigm or quasi-market Q. 11 paradigm? 12 Α. Quasi. And they have municipal utilities as well 13 Ο. that participate in the market, as well as the 14 15 investor-owned utilities; is that correct? 16 Α. Yes. 17 West Virginia? Q. 18 Α. Ouasi. District of Columbia? 19 Q. 2.0 Α. Market paradigm, generally. 2.1 Ο. Okay. You've already testified as to 22 your position on renewals, so that's fine. 23 MS. BOJKO: Objection, your Honor. 24 MR. KURTZ: Let me rephrase, because I 25 may be done.

5005 EXAMINER PRICE: We're going to ignore 1 2 Mr. Kurtz's editorial comments. 3 MS. BOJKO: And strike them from the 4 record? 5 EXAMINER PRICE: We're just going to satisfy ourselves with ignoring them. 6 7 MR. KURTZ: I am done. Thank you, your 8 Honor. 9 EXAMINER PRICE: Thank you. 10 Mr. Kutik? 11 MR. KUTIK: Thank you, your Honor. 12 13 CROSS-EXAMINATION 14 By Mr. Kutik: Good afternoon. 15 Q. 16 Good afternoon. 17 It is correct, is it not, that you are Q. 18 testifying for the first time at the Public Utilities Commission of Ohio in this case? 19 20 Α. Yes. 2.1 And so let me ask you a couple questions 22 about yourself. You joined PJM in March of 1988, 23 correct? 24 A. No, March 8th, 1998. 25 Q. 1999?

A. I'm sorry. 1999. Now, you've got me confused.

Q. To be clear, you joined PJM in March 1999.

A. March 8, 1999.

Q. And your position then was market monitor.

A. Yes.

- Q. And you had that position until the creation of Monitoring Analytics, correct?
- 11 A. Yes.

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- Q. And marketing analytics, we might regard that as a spinoff of the PJM market monitoring unit, correct?
- A. The name is Monitoring Analytics, not marketing analytics.
- Q. Okay. And it's an LLC?
- 18 A. Yes.
- 19 Q. And you are the only member of the LLC?
- 20 A. Yes.
- Q. Now, would it be fair to say that among
 the functions of the market monitor within PJM is to
 monitor, report on, and recommend changes to the PJM
 rules?
- 25 A. Yes.

Q. And another one of those functions is to -- or in looking at recommendations for how the rules are working, one of the goals that you have is to assure that there are competitive outcomes in PJM, correct?

A. Yes.

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- Q. Now, you and your firm also publish reports from time to time, correct?
 - A. Yes.
- Q. And some of those reports are entitled "State of the Market."
 - A. Yes.
- Q. And those reports are intended to capture the most significant issues that confront the market?
 - A. Yes.

MR. KUTIK: Your Honor, at this time we would like to have marked as Company Exhibit 75 a document entitled "State of the Market Report for PJM" dated May 15, 2014.

EXAMINER PRICE: It will be so marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MR. KUTIK: We'd also like to have marked at this time, your Honor, as Company Exhibit 76 a document entitled State of the Market Report for PJM dated April 13, 2015 -- excuse me -- August 13, 2015.

5008 1 EXAMINER PRICE: That will also be so 2 marked. 3 (EXHIBIT MARKED FOR IDENTIFICATION.) 4 MR. KUTIK: May I approach, your Honor? 5 EXAMINER PRICE: You may. Doctor, I have handed you, and my 6 Q. 7 colleague, Mr. Harvey, has handed you Company 8 Exhibits 75 and 76. Do you have those? 9 Yes. 75 is 01? Α. 10 Yes. Q1, '14 and Company Exhibit 76 is Q. 02, 2015? 11 12 Α. Yes. 13 Q. You have those in front of you. I do. 14 Α. And these are the State of the Market 15 Q. 16 reports for May 15, 2014 and April 13, 2015, correct? 17 Α. Yes. 18 And you were the principal author of 0. these documents? 19 20 Α. Yes. 2.1 Ο. You also prepared or you and your firm 22 also publish reports entitled Analysis of Base Residual Auctions, correct? 23 24 Α. Yes. 25 Q. And you have published reports for the

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      2016-'17 BRA and 2017-'18 BRA?
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                  Yes.
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                  MR. KUTIK: Your Honor, we'd like to have
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      marked at this time as Company Exhibit 77, a document
 5
      entitled Analysis of 2016/2017 RPM Base Residual
      Auction dated April 18, 2014.
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                  EXAMINER PRICE: Be so marked.
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                  (EXHIBIT MARKED FOR IDENTIFICATION.)
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                  MR. KUTIK: We'd like to have marked as
10
      Company Exhibit 78 a document entitled Analysis of
11
      the 2017/2018 RPM Base Residual Auction dated October
12
      6, 2014.
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                  EXAMINER PRICE: Also be so marked.
                  (EXHIBIT MARKED FOR IDENTIFICATION.)
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                  MR. KUTIK: May I approach, your Honor?
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                  EXAMINER PRICE: You may.
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                  MR. MENDOZA: Your Honor, may I ask a
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      point of clarification?
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                  EXAMINER PRICE: We'll get these
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      distributed. Then we'll move on to your
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      clarification.
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                  Doctor, I've handed you what has been
     marked for identification as Company Exhibits 77 and
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78. And you recognize these as the reports from

Monitoring Analytics regarding the base residual

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auctions for 2016-'17 and 2017-'18, correct?

A. Yes.

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EXAMINER PRICE: Mr. Mendoza, you have an issue?

MR. MENDOZA: I have a question about the Market Monitor Report. I was wondering if the document included all, the appendices --

MR. KUTIK: Honor, I'm cross-examining the witness at this point. If he has questions, he could have asked questions. If he wants to make some other point at some other time, that's fine, but I'd like to continue my cross-examination.

EXAMINER PRICE: I'd appreciate an answer. Is this the full document, with all appendices?

MR. KUTIK: Your Honor, what I'll say is this is a document that -- I'll start with Exhibit 75. Exhibit 75 is a document that has page numbers that go from 1 to 409, and Exhibit 76 is a document, not including the cover and table of contents, that goes from page 1 to 471.

EXAMINER PRICE: Okay. That will work.

Q. (By Mr. Kutik) Were you the principal author of the documents that we've identified as Company Exhibit 77 and 78?

A. Yes.

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- Q. And do you intend in these documents, that is, Exhibit 77 and 78, to capture what you thought were the significant facts arising from those auctions?
 - A. Yes.
- Q. Now, one of the things that you do in these base residual auction analyses is to total the total capacity offered in the auction, correct?
 - A. Yes.
- Q. And we can see that, for example, in the report dated April 18, 2017, Company Exhibit 77, we can see that in Table 6 on page 44, I believe, correct?
 - A. I didn't hear a question.
- Q. I'm sorry. My answer was correct. My question was you see that data with respect to the total amount offered into the auction on Table 6 on page 44, correct?
- A. Yes.
- 21 Q. And UCAP that was 169,159.7, correct?
- A. So that is total cleared if you're looking at the row halfway down the table.
- Q. And total offer was 184,380?
 - A. I'm not sure what you're looking at.

Q. Okay. To determine the total offered, total amount of capacity offered into the BRA, we would look at the -- we could look at either column, but looking at the UCAP column, we would see number 184,380, correct?

A. Yes.

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- Q. All right. And that represents, if you look over to the right-hand column, 91 percent was generation, 91.5 percent was generation, correct?
- A. Yes. And just so we're clear, the number you described is available capacity; it's not the total offered in, just for clarity.
 - Q. Okay.
- A. Yes. And then the percentages are the percentage of generation offered DR and EE.
- Q. And the generation offered was 91.5 percent. The DR offered was 7.9 percent and the EE offered was .6 percent, correct?
 - A. Yes.
- Q. And then you also show the total amount that's cleared, correct?
- 22 A. Yes.
- Q. And that number under the UCAP column is 169,159.7, correct?
- A. Sorry. So, yes, that's right. Yes.

5013 1 And looking at the 2017/2018 report, we Ο. 2 would see a similar analysis on page 47 of the 3 report, correct? 4 Α. Yes. 5 Ο. And what we'd see here, looking at similar numbers that we looked at, the table in the 6 7 prior report, we would see under the UCAP column on 8 the row that says "Total offered," 178,138.5, 9 correct? 10 Α. Yes. And of that amount, 92.9 percent was 11 12 generation, 6.3 percent was DR and .7 percent was EE, 13 correct? 14 Α. Yes. 15 Q. Now, you also have information on --16 well, strike that. 17 Let me refer you back to Exhibit 77, 18 April of 2014 report, the 2016-'17 auction, and 19 specifically refer you to Table 3 on page 20. 2.0 Are you there? 2.1 Α. Yes. 22 And Table 3, one of the lines indicates Q. "Existing generation sources as price takers." Do 23 24 you see that? 25 Α. Yes.

Q. And what it shows there is that a 519 of 100 -- excuse me, 1,199 of the generation resources offered constituted existing generation resources as price takers; is that correct?

A. Yes.

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- Q. And we would see a similar analysis with respect to your report dated October 6th, 2014 for the 2017/2018 auction that we marked as Exhibit 78, correct?
 - A. Yes.
- Q. And that also would be on page 22, Table 3?
 - A. That's correct.
 - Q. And what we would see there is out of 1,202 generation resources offered, 637 were existing generation resources as price takers.
 - A. Yes.
 - Q. You were also aware, are you not, that PJM publishes some information on the prices offered by capacity or by generation owners or capacity resource owners, correct?
- A. Sorry. I'm not sure quite what you're asking me.
- Q. Well, have you seen any data that PJM publishes on capacity resource offer prices for a

particular delivery year?

- A. I have. The reason I'm pausing is there's been some discussion over the years about what they're allowed to publish and what not they're allowed to published, so they've done things that FERC ultimately told them not to do, so I'm not sure exactly what you're referring to.
 - Q. But you have seen some data?
 - A. Certainly.

MR. KUTIK: Your Honor, at this time we would like to have marked as Company Exhibit 79 a document, a one-page document, entitled "Capacity Resource Offer Prices for 2016/17 Delivery Year."

EXAMINER PRICE: Be so marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MR. KUTIK: And we'd also like to have marked for identification Company Exhibit 80, "Capacity Resource Offer Prices for 2017/18 Delivery Year."

20 EXAMINER PRICE: Also so marked.

21 (EXHIBIT MARKED FOR IDENTIFICATION.)

MR. KUTIK: May I approach?

23 EXAMINER PRICE: You may.

Q. (By Mr. Kutik) Doctor, have you seen the information that's shown in Exhibit 79 and 80 before?

- A. I'm sure I've seen these slides, yes.
- Q. You recognize these as slides that are published by PJM.
 - A. Yes.
 - Q. And what this shows is a certain amount of capacity resources that offer, for example, at a price of zero, correct?
 - A. Yes.
- 9 Q. We also see a certain amount of 10 generation resources that offered at between zero and 11 \$100.
- 12 A. Yes.

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- Q. And then for over 200, correct?
- 14 A. Yes.
- Q. And Exhibit 79 shows that information for the 2016-'17 BRA, correct?
- 17 A. Yes.
- 18 Q. And Exhibit 80 shows that same 19 information for the 2017-2018 BRA, correct?
- 20 A. Yes.
- Q. Now, one of the things that your office also does is monitor retirements, correct?
- 23 A. Yes.
- Q. And would you agree with me that the large percentage of retirements in the last four or

five years have been coal-fired units?

A. Yes.

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- Q. You'd also agree with me, would you not, that the overwhelming percentage of additions in the last four or five years within PJM have been gas-fired, natural gas-fired units, correct?
 - A. Yes.
- Q. Now, you would agree with me that the PJM capacity market rules are not perfect, correct?
 - A. Yes.
- 11 Q. In fact, that's something you've stated
 12 from time to time?
 - A. Yes.
 - Q. And would you also agree with me that capacity prices have been suppressed by a number of market design features?
- 17 A. Yes.
 - Q. And the rules relating to demand response have had a price suppression effect, correct?
 - A. Yes.
 - Q. And, for example, you've determined that the impact of continued inclusion of a limited DR product in the capacity market on the 2016-'17 BRA was about \$4.6 billion?
- A. Are you referring to some particular

document I have in front of me? That sounds approximately correct. I'm not -- I don't want to argue with you, but I just want to check the number.

- Q. Sure. Could you look at what we've marked as Exhibit 75, which is your State of the Market report dated May 15th, and particularly on page 1 of that document. Tell me when you're there.
 - A. I'm there.

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- Q. And in the --
- A. I see the number. The answer is yes.
- 11 Q. Thank you. And would it be fair to say
 12 that in that auction the total value of capacity sold
 13 was 5.5 billion?
 - A. Yes.
 - Q. And a month earlier in your BRA report, you had observed that if no DR had been offered into the market in 2016-'17 BRA, revenues would have increased by \$5.5 billion, correct?
 - A. I'm assuming you're reading it correctly.
 - Q. All right. Well, let's look at the report, if you'd like.
 - A. Okay.
- Q. Let's look at Exhibit 77, which is the
 24 2016-'17 BRA analysis. Let me have you look at page
 5 at the bottom. Are you there, sir?

A. I am.

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- Q. And the last sentence it says, "If only generation in Annual DR were offered in the 2016/2017 RPM base residual auctions, total RPM market revenues for the 2016/2017 RPM Base Residual Auction would have been \$10,141,586,456. If there were no offers for the DR in 20162017 RPM Base Residual Auction, total RPM market revenues for the 2016/2017 RPM Base Residual Auction would have been 15,630,600,107, an increase of 5,489,013,652 or 54 percent compared to the results with only Annual DR."
 - A. Yes.
 - Q. I read that correctly?
 - A. Very well.
- Q. Now, I want to follow up on some questions and answers that took place during your examination with Mr. Kurtz. It is correct to say, is it not, that there are generators in PJM that receive cost-based generation from ratepayers as part of bundled retail rates that also offer that generation into the PJM capacity markets, correct?
- A. I'm not sure -- if the question was are there generation owners who receive cost-of-service revenues and then offer those units into the RPM auction, the answer is yes.

5020 1 And there is -- and some of this 0. 2 generation is owned by vertically integrated utilities in nonretail choice states? 3 4 Α. Yes. And the amount of this generation is a 5 0. significant number, correct? 6 7 Α. I don't know what you mean by that. 8 Q. Okay. 9 The number is what it is. 10 Q. All right. Do you remember me taking your deposition, sir? 11 12 Α. I do. 13 MR. KUTIK: May I approach, your Honor? 14 EXAMINER PRICE: You may. 15 Dr. Bowring, you recall, as I just said, Q. 16 I took your deposition, and at the deposition you 17 took an oath to tell the truth, correct? 18 Α. Yes. 19 And you did tell the truth? 0. 2.0 Α. Yes. 2.1 Ο. And you also took the opportunity after 22 the deposition was over and after the deposition was 23 transcribed, you wanted the opportunity to review 24 your deposition transcript, correct?

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Α.

Yes.

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Now, I want to refer you to page 40 of
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             Q.
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      your deposition. Are you there, sir?
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             Α.
                  Yes.
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                  And starting at line 8, did you give the
 5
      following answers to the following questions:
                  Question: "Is there some generation in
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 7
      PJM that is owned by fully integrated utilities or
 8
      vertically integrated utilities operating in a
      non-retail choice state?"
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                  Answer: "Yes."
                  Question: "And are you aware with
11
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      respect to those generators whether they offer their
13
      generation into the PJM capacity market?"
                  Answer: "Yes."
14
                  Question: "Do you know how much
15
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      generation that entails?"
17
                  Answer: "Again, I don't know off the top
18
      of my head."
                  Question: "All right. Can you give me
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      an approximation?"
                  Answer: "I am not sure that number is
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      not confidential, but it's a significant number."
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                  That was your deposition testimony, was
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      it not?
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             Α.
                  Yes.
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- Q. Now, one of those generation owners receiving cost-based generation from retail customers and offering generation into the PJM market is Dominion, correct?
 - A. Yes.
 - Q. And that's in Virginia, correct?
- A. Yes.

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- Q. Now, before I get to Dominion, I want to just, perhaps, clarify some of your answers in response to questions from Mr. Kurtz. Would it be fair to say that most of Pennsylvania is within PJM?
- A. I believe it all is. Well, actually, there may be some tiny exceptions, so the answer is yes.
 - Q. And part of West Virginia is in PJM?
- 16 A. Yes.
- Q. And part of Kentucky is in PJM?
- 18 A. Yes.
- 19 O. Part of Indiana is in PJM?
- 20 A. Yes.
- Q. I think you said a tiny part of Michigan is in PJM?
- A. I think the tiny part applies to many of those states.
- Q. And with respect to the part of Virginia

5023 1 that's in PJM, Virginia has cost-of-service 2 regulation for generation, correct? 3 Α. Yes. 4 Q. And the same is true with West Virginia? 5 Α. Yes. And Kentucky? 6 Q. 7 Α. Yes. 8 Q. And Indiana? 9 Α. Yes. 10 And Michigan? Q. 11 Α. Yes. 12 Q. Now, going back to Dominion, it's correct to say that Dominion owns approximately 13 18,000 megawatts of generation capacity? 14 15 Α. Yes. 16 And that's roughly 10 percent of the Q. 17 total capacity in PJM? 18 Α. Roughly. 19 And Dominion bids both into the capacity Q. 20 and energy markets, correct? 2.1 Α. Yes. 22 Dominion has recently built and put into Q. service a number of new generation facilities, 23 24 correct? 25 Α. Yes.

- Q. One of those new generation facilities is the Bear Garden unit or plant, correct.
 - A. Yes.

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- Q. And that's a 589-megawatt natural gas combined cycle plant, correct?
 - A. I believe so.
- Q. And another Dominion plant is the Virginia City Hybrid Energy Center, correct?
 - A. Yes.
 - Q. And that's in service now, correct?
- 11 A. I believe so.
- 12 Q. Another plant that's in service recently
- is Dominion's Warren County Power Station, correct?
- 14 A. Yes.
- Q. And that's a natural gas combined cycle plant.
- 17 A. Yes.
- 18 Q. Dominion also plans a facility for the
 19 Brunswick County Power Station, correct?
- A. You're asking me if they're planning one?
- Q. Yes, a planned facility.
- 22 A. I believe so.
- Q. And that's a 1,300-megawatt combined
- 24 cycle plant or will be, correct?
- 25 A. I believe so.

- Q. Another planned facility is Dominion's Greensville Power Station, correct?
 - A. Yes.

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- Q. And that planned unit is for 1,555 megawatts as a natural gas combined cycle plant, correct?
 - A. I believe so?
- Q. And you would expect that all of these units, to the extent they exist, to the extent they will exist, have been or will be offered into PJM, correct?
- 12 A. Yes.
- Q. Would it be also fair to say that there
 are -- I think as you mentioned to Mr. Kurtz, there
 are some cooperatives within PJM, correct?
- 16 A. Yes.
- Q. And these are nonprofit entities that recover the cost of generation through retail rates, correct?
- 20 A. Yes.
- Q. One of those cooperatives is Eastern
 Kentucky Power Cooperative?
- 23 A. Yes.
- Q. And that owns four plants that approximate about 3,000 megawatts?

- A. That sounds right.
- Q. And they, that as EKPC, bids its capacity into PJM, into the PJM markets, correct?
 - A. Yes.
 - Q. You're also aware of an entity called American Municipal Power, correct?
 - A. Yes.

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- Q. That is a member of PJM, correct?
- A. Yes.
- Q. And owns generation on behalf of municipally owned electric systems, correct?
 - A. Yes.
- Q. And the net cost of operating that generation is passed through to members and eventually to ratepayers of members, correct?
- 16 A. Yes.
 - Q. And with respect to American Municipal Power, it offers its generation into the PJM market, correct?
 - A. Sorry. I thought you just -- did you ask the same question? Maybe I didn't understand.
- Q. Well, does AMP offer its generation into the PJM markets?
- A. It doesn't do it directly. I believe so.
- 25 Q. Now, as market monitor, one of the

things, one of your special statuses is that you get to see the offers that entities make into the capacity and energy markets, correct?

- A. We do see the offers.
- Q. And would it be fair to say that you have never brought a complaint to the enforcement authorities at FERC against Dominion for how its bid its capacity or energy into the PJM market?
- A. The status of our referrals is actually confidential.
- Q. Well, isn't it true that you have never brought a complaint against EKPC?
- A. The status of our referrals is confidential, if that's what you're asking about.
 - MR. MAYES: Objection. Can you clarify the meaning of complaint that you're using?
 - Q. Dr. Bowring, do you remember being deposed in the AEP ESP case?
- 19 A. Yes.

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- MR. KUTIK: May I approach, your Honor?

 EXAMINER PRICE: You may.
- Q. Dr. Bowring, I've handed you a copy of a document. Is that the transcript of your deposition in the AEP case?
- 25 A. Yes.

- Q. And that was earlier this week, was it not, or last week, I guess?
 - A. Friday.
- Q. And like with the deposition in this case, you took an oath to tell the truth in that case, did you not?
 - A. Yes.
- Q. Let me refer you, sir, to page 55 of that transcript. Are you there?
- A. Yes.

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- Q. And let me refer you specifically to line
 12 15. Did you not give the following answer to the
 13 following question:
- Question: "Have you ever brought a

 complaint to PJM or FERC about the way that Eastern

 Kentucky Power Cooperative bids at its plants?"
- Answer: "I don't believe -- I don't believe so."
 - A. That is what I said, and I think it's consistent with what I just told you.
 - Q. Well, isn't it true that you have never brought a complaint to PJM or FERC about the way that American Municipal Power bids its capacity?
- A. Okay. So just to be clear, referrals, which is a form of a complaint, I assume, in the way

you're using the term are confidential, so I can't answer the question about referrals. Have we said anything public about it? No.

- Q. Okay. Well, again, let me refer you to your deposition, sir, page 58. At the bottom of page 58, starting at line 23, do you not answer the following questions the following way --
 - A. Sorry. What page are you on?
 - Q. Page 58, starting at line 23.

Question: "Have you ever brought a complaint to PJM or FERC about AMP's bidding behavior in the capacity auctions?"

Answer: "No."

That was your deposition testimony, was it not?

A. Yes.

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MS. BOJKO: Objection. Your Honor.

EXAMINER PRICE: Grounds?

MS. BOJKO: This is improper impeachment.

He did not say -- he said we did not make a formal public complaint, but we cannot discuss referrals,

22 and that's a different entity. Mr. Kutik was not the

deposer asking questions, so he has no idea of what

the intent of the deposer was at the time, thus it's

25 improper impeachment.

5030 1 EXAMINER PRICE: Overruled. It's plain 2 language. He asked the same question. 3 MS. BOJKO: And the witness clarified. 4 EXAMINER PRICE: Mr. Mayes can provide 5 any context to the Bench on redirect if he thinks 6 that that's appropriate. 7 MR. MAYES: The meaning of the term 8 "complaint," as I think the witness has already 9 testified, sometimes people use that to mean 10 referral. Sometimes they mean it to mean a filing 11 under Section 206 of the Federal Power Act. 12 EXAMINER PRICE: I think now you're 13 testifying, Mr. Mayes. Again, I'm not saying this is no -- this is certainly legitimate topic for inquiry, 14 but you should do it on redirect. 15 16 MR. MAYES: I think the witness has 17 already testified on that point. 18 EXAMINER PRICE: If you're happy with the 19 record, then so am I. 2.0 MR. MAYES: Yes, your Honor. 2.1 0. (By Mr. Kutik) Now, Dr. Bowring, you've 22 used the word "subsidy" in your testimony, correct? 23 Α. Yes. 24 And, in fact, you've used that word 25 today, correct?

A. Yes.

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- Q. In your view, generation owners, like Dominion, are receiving a subsidy, correct?
 - A. Yes.
- Q. But recovery of cost of service for generation that would otherwise be recovered in the wholesale market is -- I'll back up.

Would it be fair to say that the receipt by Dominion of cost-based recovery from retail customers is not inconsistent with PJM rules?

- A. That is correct.
- Q. Now, I want to switch to a slightly different topic. Would you agree with me that there are many generation owners that offer PJM into -- well, that offer generation into the PJM market at zero, correct?
 - A. Yes.
- Q. And we saw several exhibits or two exhibits before that show that, correct?
 - A. Yes.
- Q. And you would agree with me that there is nothing in your reports about offering in at zero as being improper, correct?
- A. Yes, zero offers can be consistent with competitive offers, and there's certainly no rule of

offering in at zero.

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- Q. So the answer to my question is yes?
- A. The answer is the answer I gave.
- Q. My question was, there's nothing in your reports that says that's improper, correct?
- A. Well, I think I probably have exhausted recall of everything I said in the report. I mean, if you'd allow me to explain the answer, I'd be happy to. If you don't want me to, I'm not sure I can answer the question.
- Q. All right. You are familiar with
 something called the minimum offer pricing rule,
 correct?
- 14 A. Yes.
- Q. Would it be correct to say that that does not apply to existing generation?
- 17 A. Yes.
- Q. And it has never applied to existing generation, correct?
- 20 A. Yes.
- Q. And Davis-Besse and Sammis would be considered existing generation for purposes of the MOPR, correct?
- 24 A. Yes.
- Q. And the two OVEC plants involved in the

proposed transaction would be considered existing generation for MOPR purposes, correct?

A. Yes.

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- Q. And you argued at one point that existing generation, like Dominion, should be subject to the MOPR, correct?
- A. We argued that Dominion should be subject to the MOPR.
- Q. And PJM did not -- or, excuse me, but FERC did not accept your view, correct?
- A. There was a settlement and FERC accepted the settlement, which included Dominion.
 - Q. Isn't it true that your view did not prevail?
 - A. That is correct.
 - Q. I want to talk to you a little bit about the companies' proposal in this case. Would it be fair to say you do not recall whether the companies are asking the Commission to approve a PPA?
 - A. The companies are asking for -- the companies are asking for the transfer of the responsibility for paying certain assets to the customers, and the form of it is through a PPA, I believe.
- MR. KUTIK: Move to strike as

1 nonresponsive.

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EXAMINER PRICE: I'm not going to strike your answer, but I'm going to warn you to please be more responsive to the counsel going forward, and if you could give a more straightforward response to the previous question, I'd appreciate it.

THE WITNESS: Okay. Sorry. Could you tell me the question again?

EXAMINER PRICE: The court reporter will read it back.

(Record read.)

A. Yes.

- Q. And you don't recall reviewing the term sheet between the companies and FES, correct?
- A. I've read the companies' filing and the companies' witnesses' testimony.
- Q. So is the answer to my question, yes, you don't recall reviewing the term sheet?
 - A. I don't recall if it was included in those documents, that's correct.
 - Q. And you don't know if there is only one contract or more than one contract as proposed, correct?
- 24 A. Yes.
- Q. And you understand that under the

companies' proposal, the Commission would not be asked to determine what the price of the generation received under the PPA to be offered into the market would be, correct?

- A. Sorry. I didn't understand what you were asking.
- Q. Sure. Let me try to repeat it.

You understand that under the companies' proposal, the Commission would not be asked to determine the price of generation under the PPA, what that would be offered into the market at, correct?

- A. So can I try to rephrase the question to see if I have it?
 - Q. Sure.

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- A. So you're asking me whether the Commission is determining the price at which this capacity would be offered in the PJM market?
 - Q. Yes.
 - A. That is correct.
- Q. And would it be fair to say that rider -- let me ask you a different question.

The price that the companies would pay

FES under the PPA would not be set by the Commission,

correct

A. I don't know.

Q. You understand that rider RRS would be either a retail charge or credit, correct?

A. Yes.

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- Q. And rider RRS would reflect the netting of the amounts that the companies paid FES and the market revenues received by the companies via whatever output of the plants was sold into the market, correct?
- A. Again, I'm not quite sure what you're asking.
- Q. All right. So you don't understand that there is a netting in rider RRS of what the companies would pay FES and what the companies would receive from the market in offering the output of the plants into the PJM markets.
 - A. I understand there's a netting.
- Q. Okay. Now, would it also be correct to say that as far as the companies are concerned, rider RRS is to act as a pass-through?
 - A. Yes.
- Q. And the recovery from the companies' customers of costs paid by the companies to FES would not be automatic, correct?
 - A. There is a provision for a review, yes.
 - Q. But the Commission would also have the

right to review the companies' bidding behavior into the PJM market, correct?

A. Yes.

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- Q. You didn't do an analysis of the companies' projection of costs and revenues under rider RRS, correct?
- 7 A. I didn't think it was necessary, that's 8 correct.
 - Q. And you didn't do an analysis of Mr. Rose's energy or price capacity forecast, correct?
- 12 A. Yes.
- Q. And you believe that even if rider RRS
 results in a credit for customers, the rider would be
 providing a subsidy, correct?
- 16 A. Yes.
- Q. And that would be true even if rider RRS provided a credit for its entire term?
- 19 A. Yes.
- Q. Now, I understand, sir, that you've
 reviewed the PUCO's order in the prior AEP ESP case,
 correct?
- A. How do I understand that? I'm sorry.

 I'm not supposed to ask questions. I'm not sure what

 you're referring to, I'll put it that way.

- Q. You testified in or you plan to testify in a case involving AEP, correct?
 - A. Yes.

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- Q. And you understand that that's a case that involves AEP's PPA rider, correct?
 - A. Yes.
- Q. And you understand that the PPA rider was established in AEP's most recent ESP case, correct?
 - A. Yes.
- Q. And you read the order in that case from the Commission, correct?
- A. I just don't recall having -- I don't recall the details of it, but I probably read it.
- Q. Now, it would be correct to say, sir, that you do not have an opinion that that case, that is, the AEP ESP case, was wrongly decided, correct?
 - A. Correct.
- Q. And would it be fair to say that supply diversity is an appropriate factor for the Commission to consider in evaluating proposals like the riders that were at issue -- or that are at issue in this case or in AEP's PPA rider case?
 - A. Yes.
- Q. Would you also agree with me, sir, that compliance with environmental regulations and with

pending environmental regulations is similarly an appropriate factor for the Commission to consider?

- A. Yes.
- Q. Do you further agree that the impact of closure of generation plants and the impact that it would have on electric prices and the resulting effect on economic development within the state is a similarly and appropriate factor for the Commission to consider?
- 10 A. Sorry. "Similarly and appropriate" is what you said?
- 12 Q. Yes.
- 13 A. Yes.
- MR. KUTIK: May I have one minute, your
- 15 Honor?

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- 16 EXAMINER PRICE: You may.
- 17 (Discussion off the record.)
- 18 MR. KUTIK: I have no further questions.
- 19 Thank you, Dr. Bowring.
- 20 EXAMINER PRICE: Thank you.
- Mr. McNamee?
- MR. MCNAMEE: I have no questions. Thank
- 23 you.
- 24 EXAMINER PRICE: Mr. Mayes, redirect?
- 25 MR. MAYES: Yes, I have redirect.

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REDIRECT EXAMINATION

By Mr. Mayes:

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Q. Dr. Bowring, is there anything in any of your answers that you would like to clarify?

MR. KUTIK: I object.

MR. MAYES: It's not a leading question.

MR. KUTIK: But it calls for an

incredibly detailed and unobstructed narrative and that's improper.

11 EXAMINER PRICE: I think you have to
12 narrow your redirect a little more than that.

Let's go off the record.

(Discussion off the record.)

- Q. (By Mr. Mayes) We discussed at some length your various reports and the State of Monitor Report and Base Residual Auction analysis or conclusions about the capacity market. Have there been any developments regarding the capacity markets that might cause that information to be less relevant today?
- A. Well, there's certainly been significant developments since our last BRA report was done. I think it's widely known, probably been discussed here, that the capacity performance changes to the

capacity -- you're causing it -- that the capacity 1 2 performance modifications to the capacity market were 3 put in place recently and affected the most recent 4 base residual auction, which was for years '18-'19. 5 The net effect of that was to remove some of the 6 issues that we had with the capacity market design 7 resulting in higher clearing prices throughout the 8 PJM footprint. 9 MR. MAYES: That concludes my redirect. 10 EXAMINER PRICE: Thank you. Mr. O'Brien, recross? 11 12 MR. O'BRIEN: Thank you, your Honor. 13 14 RECROSS-EXAMINATION 15 By Mr. O'Brien: 16 Just one question, Dr. Bowring. 17 Mr. Kutik asked you a number of questions about 18 Dominion in Virginia. To your knowledge, does 19 Virginia regulation allow Dominion to recover

Dominion in Virginia. To your knowledge, does

Virginia regulation allow Dominion to recover

generation costs from facilities that are

specifically excluded from providing retail

generation service to Dominion's Virginia customers?

MR. KUTIK: Objection.

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EXAMINER PRICE: Grounds?

MR. KUTIK: Friendly cross.

5042 EXAMINER PRICE: That's also outside the 1 2 scope of redirect. 3 MR. KUTIK: That, too. 4 MR. O'BRIEN: I thought I'd try, your 5 Honor. EXAMINER PRICE: Good try. 6 7 MS. BOJKO: I do have one. 8 EXAMINER PRICE: Ms. Bojko. 9 MS. BOJKO: Thank you. 10 11 RECROSS-EXAMINATION 12 By Ms. Bojko: 13 Your counsel just asked you about the 14 recent developments in the capacity performance being 15 included in the recent BRA auctions. Has your 16 testimony here today changed based on the recent 17 developments in the capacity auctions, which include the capacity performance modifications that you 18 19 mentioned? 2.0 MR. KUTIK: Objection. 2.1 EXAMINER PRICE: Grounds? 22 MS. BOJKO: Friendly cross. EXAMINER PRICE: I'll allow this one. 23 24 Α. No. 25 MS. BOJKO: Thank you. No further

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      questions.
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                  EXAMINER PRICE: Mr. Mendoza?
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                  MR. MENDOZA: I have a question.
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                  EXAMINER PRICE: Promise me it will be
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      unfriendly.
                  MR. MENDOZA: I think I will pass then,
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      actually. I thought I would take a shot given your
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      previous ruling, but I can't make that --
 9
                  EXAMINER PRICE: It seemed unfriendly
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      when she asked it.
                  Mr. Petricoff?
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                  MR. PETRICOFF: No questions.
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                  EXAMINER PRICE: Mr. Sauer?
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                  MR. SAUER: No questions.
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                  EXAMINER PRICE: Mr. Randazzo?
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                  MR. RANDAZZO: No questions.
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                  EXAMINER PRICE: Mr. Kurtz?
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                  MR. KURTZ: No questions.
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                  EXAMINER PRICE: Mr. Kutik?
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                  MR. KUTIK: Your Honor, may I proceed?
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                  EXAMINER PRICE: Thank you.
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                       RECROSS-EXAMINATION
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      By Mr. Kutik:
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             Q.
                  It is correct that there were a number of
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units that offered in in terms of the last BRA as price takers?

- A. The nature of offer has changed in that auction, so certainly some did offer as price takers.
- Q. Okay. And that included both the BRA and the transition auctions, correct?
- A. I'm not sure that it did include the transition auctions. To answer the question accurately, I would need to check.
- Q. Well, would you agree that one of the effects of the capacity performance rule is that it has increased capacity prices?
 - A. Yes.
- Q. And there is also a proposal, is there not, or perhaps it's a rule now, regarding a change in the rules relating to offer caps, correct?
- A. Yes.

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- Q. And that is to set the cap at a percentage of CONE, correct?
 - A. Not entirely.
- Q. All right. Well, do you believe that that offer cap change will put upward pressure on capacity prices, and you believe that; do you not?
- A. I believe it will result in higher prices.

5045 MR. KUTIK: No further questions. 1 Thank 2 you, your Honor. 3 EXAMINER PRICE: Thank you. 4 Mr. McNamee? 5 MR. MCNAMEE: No questions. Thank you. EXAMINER PRICE: Ms. Addison? 6 7 EXAMINER ADDISON: No questions. 8 EXAMINER PRICE: Ms. Chiles? 9 EXAMINER CHILES: No questions. 10 EXAMINER PRICE: I just have a couple questions. 11 12 THE WITNESS: Sure. 13 EXAMINER PRICE: Turning to your 14 testimony at page 3, line 12. 15 MR. KUTIK: I'm sorry, your Honor. 16 EXAMINER PRICE: Page 3, line 12 of the 17 testimony, you have a brief discussion or abbreviated 18 discussion of the subsidy question in New Jersey and Maryland, is that correct? 19 2.0 THE WITNESS: Yes. 2.1 EXAMINER PRICE: And you believe the 22 situations where analogous, even though New Jersey and Maryland involve construction of generation and 23 24 in this case it's existing generation? 25 THE WITNESS: Yes.

EXAMINER PRICE: You indicated that -I'm trying to listen to your opposition to long-term
contracts. If hypothetically a company were to
propose a long-term contract for renewable energy,
10, 15 years, you would oppose that as a market
subsidy?

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THE WITNESS: So, first of all, I don't have opposition to long-term contracts.

EXAMINER PRICE: I misunderstood something then.

THE WITNESS: Long-term contracts are fine as long as they're market based. So there are lots of long-term contracts. But, nonetheless, everyone in the PJM market is required to offer their capacity into the market. So as long as the long-term contract doesn't constitute a subsidy — this, for example, lots of units, brand new units, are being built enter into energy takeoff long-term contracts with someone willing to guarantee them a price for energy, that's fine.

So I have no objection to long-term contracts, only when they're a vehicle for providing subsidies. And in the case of renewables, the same issues apply. If someone was entering into a long-term contract really for the purpose of making

an out-of-market payment that those resources would not receive in the market, that would be a subsidy as well. But it's not the long-term contract, it's the fact that these payments are not consistent with the competitive market.

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EXAMINER PRICE: Okay. Does opposition to renewable energy mandates and their impact on the market extend to energy efficiency mandates?

THE WITNESS: Okay. Just so we're clear, my view on all of these things is that markets work better without subsidies, and those do constitute subsidies and subsidies for energy efficiency function the same way that subsidies for wind or solar function, or they can function that way.

EXAMINER PRICE: So you're opposed to them?

THE WITNESS: Yes. When they operate, a subsidy is, in effect, competitive prices, yes.

EXAMINER PRICE: Thank you. You're excused.

THE WITNESS: Thank you.

EXAMINER PRICE: At this time, we will rule on Mr. Mayes' motion for admission of IMM

Exhibit 1. We will grant it subject to the motion to strike.

(EXHIBIT ADMITTED INTO EVIDENCE.)

MR. KUTIK: Your Honor, at this time we'll move for the admission of Company Exhibit 75, 76, 77, 78, 79 and 80.

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EXAMINER PRICE: Any objection to the admission?

MR. PETRICOFF: Yes, your Honor. I would like to object. We have no objection to the relatively few pages, there were two tables that were cited in what are 1,000 pages of documents which were not handed out, and I think it's wrong to have all of that come into the record. I think it ought to be limited to just the pages that were referenced in the cross-examination, and I think that those pages ought to be made available by filing them into the record so we can have them for briefs.

MR. KUTIK: Your Honor, this witness authenticated all the documents, and he also indicated that he -- or the documents are supposed to indicate significant and substantial issues within PJM. I think the entire document is fair game to be commented on and to be briefed.

EXAMINER PRICE: Mr. Petricoff, is your concern the fact that the documents have not been handed out, or is your concern the fact that the

documents are so voluminous?

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MR. PETRICOFF: C, all of the above. And let me explain why. There's no question about the authenticity. We're not challenging the authenticity. But in 1,000 pages, there might be a lot of items that could end up in briefs that could be cited that weren't part of the discussion and aren't relevant. And I can't articulate to you why it isn't relevant because nobody has seen it. These are not documents that were produced in discovery. They just showed up today, and they were not passed out to everybody.

EXAMINER PRICE: In terms of passing them out, I assume, Mr. Mayes, these documents are available on your website?

MR. MAYES: That's correct.

EXAMINER PRICE: So there's easy access to these documents. In terms of relevance, that's a matter for your reply brief.

Frankly, generally it's been our practice to submit the complete document and not omit parts of documents. I think we've taken administrative notice of major sections of the tariff, for example. So if there's a relevance issue that comes up, you can take care of it on brief.

MR. PETRICOFF: Thank you. EXAMINER PRICE: At this time, we will admit Company Exhibit 75, 76, 77, 78, 79 and 80. (EXHIBITS ADMITTED INTO EVIDENCE.) EXAMINER PRICE: Let's at this point adjourn for lunch. We'll return at 2:30. Let's go off the record. (At 1:18 p.m. a lunch recess was taken until 2:30 p.m.) 2.1

5051 1 Tuesday Afternoon Session, 2 October 6, 2015. 3 4 EXAMINER PRICE: Mr. Petricoff, you may 5 call your next witness. MR. PETRICOFF: Thank you, your Honor. 6 7 At this time we'd like to called David Scarpignato to 8 the stand. 9 (Witness sworn.) 10 EXAMINER PRICE: Please be seated and state your name and business address for the record. 11 12 THE WITNESS: Hello. I'm David 13 Scarpignato with Calpine Corporation. The address is 14 875 15th Street, Suite 700, Washington DC 20005. 15 EXAMINER PRICE: Please proceed, 16 Mr. Petricoff. 17 MR. PETRICOFF: Yes, your Honor. Has the 18 witness been sworn in? EXAMINER PRICE: Yes. 19 2.0 MR. PETRICOFF: At this point I'd like to 2.1 have marked as RESA Exhibit 1 the direct prepared 22 testimony of David Scarpignato, and I'd also like to have marked as RESA Exhibit 1A an errata sheet for 23 24 changes to that testimony that we'll go over here 25 momentarily.

5052 1 EXAMINER PRICE: Be so marked. 2 (EXHIBITS MARKED FOR IDENTIFICATION.) 3 4 DAVID SCARPIGNATO 5 being first duly sworn, as prescribed by law, was examined and testified as follows: 6 7 DIRECT EXAMINATION 8 By Mr. Petricoff: 9 Mr. Scarpignato, do you recognize what -first of all, do you have a copy of what we've just 10 marked as RESA Exhibit 1 and RESA Exhibit 1A? 11 12 A. I have this (indicating). 13 Q. That's 1A. 14 EXAMINER PRICE: Mr. Petricoff, we don't have copies of 1A. 15 16 MR. PETRICOFF: I'm sorry, your Honor. 17 Mr. Scarpignato, let's start with RESA Q. 18 Exhibit 1. Do you have a copy with you of your 19 direct prepared testimony? 2.0 Α. Yes, I do. 2.1 And was that prepared by you or under 22 your direction? 23 Α. Yes. 24 And was it submitted to the Commission on 25 December 22nd, 2014?

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- Q. And have there been any changes in your position that have taken place since December 22nd of 2014?
 - A. Yes.
 - Q. Could you tell us about that?
- A. I am now with Calpine Corporation and the address has changed. The title has stayed the same, and I've been employed there since April 2016.
 - Q. And do you have --
 - A. '15. Thank you.
- Q. And the changes in terms of your position and the date that you started with Calpine are reflected in Exhibit 1A?
 - A. Correct.
- Q. And I notice that the job responsibilities and duties appear to be the same other than the change of the name; is that correct?
 - A. Yes. At a high level, that's correct.
- Q. Does Calpine belong to RESA? Are they members of RESA?
- A. Calpine does not belong to RESA, but
 Calpine purchased Champion Energy on October 1st, the
 other day, and Champion is a member of RESA.
- Q. And you are here on behalf of RESA?

- A. I am here on behalf of RESA.
- Q. The first four questions that we have now redone by virtue of RESA Exhibit 1A, if I asked you the other questions in your direct prepared testimony that was filed on December 22nd, would your answers be the same?
 - A. Yes.

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- Q. Are there any other changes or amendments you would like to make?
 - A. No.

MR. PETRICOFF: Your Honor, at this time the witness is available for cross-examination.

EXAMINER PRICE: Mr. Kutik.

MR. KUTIK: We have some motions to strike. Our first motion to strike, your Honor, is directed to page 16, and, particularly, your Honor, the sentence that begins on line 6. It says "For example," and goes to line 8 and ends with the footnote No. 2. So we would move to strike that sentence and the two footnotes on the grounds that the sentence relies on hearsay, particularly it appears that one is -- the first footnote on a report by the Brattle Group, another report by Sargent & Lundy; and the second footnote appears to be something from SNL, but it isn't apparent exactly

what it is, so there's no foundation to establish that it meets any of the exceptions to the hearsay rule.

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EXAMINER PRICE: Mr. Petricoff?

MR. PETRICOFF: Yes, your Honor. As to the question on hearsay, these are publicly available sources. The Internet sites are presented. The value of the source can obviously be addressed in cross-examination, and the Commission can give the proper weight to it.

EXAMINER PRICE: Do you have personal knowledge of the statements made in your testimony?

THE WITNESS: Yes.

MR. KUTIK: Do you mean with respect to the facts of that particular sentence?

EXAMINER PRICE: Yes, with respect to the facts of that particular sentence.

THE WITNESS: Can the reporter repeat the question so I understand what you're asking?

EXAMINER PRICE: I'll ask it again. Do you have personal knowledge of the facts contained in that sentence?

THE WITNESS: If you mean by personal knowledge, am I the one that obtained the knowledge, yes.

EXAMINER PRICE: Where did you obtain the knowledge?

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THE WITNESS: I obtained the knowledge from publicly available sources that I have listed there. Nobody else handed them to me. It's not unusual to talk about heat rates in my industry.

EXAMINER PRICE: Okay. We will grant the motion to strike at this time. It is hearsay.

MR. KUTIK: Our next motion, your Honor, or might be two motions because they're both on the same grounds, is directed to some sentences on page 31, and actually it starts on line 21 with the sentence that begins "As an example," and our motion continues on to page 32, line 5, and we would have a similar motion, your Honor, with respect to the sentence that begins on line 5 on page 32 to the end of that paragraph that ends on line 10.

These sentences report statements that are in Attachments 4 and 5 to the witness' testimony. Attachments 4 and 5, your Honor, appear to be letters from third parties to others, and so they are statements of the declarants that are outside the hearing room, and they are statements, your Honor, that are not of parties, and certainly nothing in these letters satisfies any of the exceptions of the

5057 hearsay rule. 1 2 EXAMINER PRICE: Mr. Petricoff? 3 MR. PETRICOFF: Your Honor, may I have a 4 minute to review the sentences? 5 EXAMINER PRICE: You may. Just to clarify, you're not striking the 6 7 example -- the sentence on line 20, "For example, PJM 8 load forecasts in 2008-'12 were significantly off 9 from the estimates"? 10 MR. KUTIK: I'm sorry. I didn't hear your reference. 11 12 EXAMINER PRICE: Line 20, you are not 13 including that sentence? 14 MR. KUTIK: On page 32? EXAMINER PRICE: 31. 15 16 MR. KUTIK: That's correct, your Honor. 17 I'm not striking that sentence. 18 MR. PETRICOFF: Well, your Honor, in 19 terms of the Attachment 4, this letter basically is a 2.0 public letter that was filed by public officials with 2.1 the PJM, and, I assume, is available on the records 22 of PJM, and, therefore, I think it does fit the 23 hearsay example for a public document. 24 MR. KUTIK: May I respond, your Honor? 25 EXAMINER PRICE: Are you making the same

argument about the second one, Attachment 5?

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MR. PETRICOFF: I hadn't got to that one yet. I thought I'd take the first one first.

EXAMINER PRICE: You may respond.

MR. KUTIK: Your Honor, the public records exception are records of a public entity, a governmental entity, additionally with a duty to report the facts or circumstances that are in that document. These are simply statements of these various parties about certain facts that they allege to exist. It's classic hearsay.

EXAMINER PRICE: I'm going to grant the motion to strike as to the first sentence and attachment.

As to the second sentence, Mr. Petricoff?

MR. PETRICOFF: Well, your Honor, I'm

going to make a very similar argument. Once again,

PJM is a public quasi-governmental agency

Correspondence as docketed is open for the public to

see, and, therefore, I think it deserves treatment

here as a public document and exception to the

hearsay rule.

EXAMINER PRICE: Thank you. We'll grant the motion to strike. The difficulty is Mr. Kutik cannot cross-examine the underlying statements to

test the veracity. I understand what you're saying about it's available, but he has no ability to dispute these underlying facts.

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MR. PETRICOFF: I understand that he doesn't have the, if you will, declarant here to do it, but I think when looking at the way it is used within the testimony, it is to support the issue as opposed to being in there only for the truth of its assertion in that case. I think it does -- it is covered by the hearsay rule.

EXAMINER PRICE: Thank you. I am granting the motion to strike.

MR. PETRICOFF: I understand, your Honor. That's fine.

MR. KUTIK: Your Honor, for our last motion to strike, we direct your attention to page 34, and we would move to strike in their entirety question and answers 52 and 53. This is very similar to the discussion we had this morning with Dr. Bowring. This is a discussion of two cases, four opinions, and is more appropriate for a brief and not for an opinion by a witness and cross-examine on that opinion.

EXAMINER PRICE: Mr. Petricoff?

MR. PETRICOFF: Yes, your Honor. I think

I want to start by talking about the answer to 53 first and then move back to 52. In 53,

Mr. Scarpignato indicates that he's not a lawyer, but the purpose here is to -- but he is an expert in PJM affairs and is on the PJM committees, including the MOPR committee, and so he is saying that the compensation schemes that were proposed in Maryland and New Jersey are similar to the application in the matter at bar.

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That, I think, is not a legal matter, and he should be able to do it. So I think it makes sense in the context to leave the fact that they were struck down in, but if, in fact, the concern is he's raising a legal opinion or making a legal decision, I think that should be limited to just taking out the words "struck down" on line 1 on page 35.

MR. MENDOZA: Your Honor, may I? EXAMINER PRICE: You may.

MR. MENDOZA: I'd like to add similar to the discussion we had this morning, this is all factual comparison of the schemes that were overturned in New Jersey and Maryland and comparing those to the proposal here, so this is appropriate testimony for this witness. It's a factual comparison of the two programs.

5061 1 EXAMINER PRICE: Mr. Kutik. 2 MR. KUTIK: Your Honor, this testimony, 3 and particularly the footnotes, quote at length from 4 the opinion, and so, again, we're talking about the 5 necessity of sitting here and debating what the 6 opinion said and didn't say. 7 EXAMINER PRICE: The issue I think that 8 Mr. Petricoff has raised is that it's not unfair, is if we struck the footnotes, would you still have an 9 10 issue with the remainder of the testimony? MR. KUTIK: With Mr. Petricoff's 11 12 additional strike, your Honor? 13 EXAMINER PRICE: Yes. MR. KUTIK: So that sentence now would 14 15 read how, your Honor? 16 EXAMINER PRICE: "I simply want to point 17 out that the compensation scheme proposed by the 18 Companies is nearly identical to the ones in Maryland 19 and New Jersey," and strike the footnotes. 2.0 MR. KUTIK: That would be acceptable, 2.1 your Honor. 22 EXAMINER PRICE: Okay. The motion to 23 strike will be granted in part and denied in part. 24 MR. PETRICOFF: Your Honor, I think in

keeping with the logic, then, we would not contest

5062 taking out Q52 and A52 because I think that goes 1 along with --2 3 EXAMINER PRICE: Question 52 and answer 4 52, those will be stricken also. 5 MR. KUTIK: That concludes my motion. EXAMINER PRICE: Thank you. 6 7 Mr. Mendoza? 8 MR. MENDOZA: No questions, your Honor. 9 EXAMINER PRICE: Mr. Sauer? 10 MR. SAUER: No questions, your Honor. 11 EXAMINER PRICE: Mr. Randazzo? 12 MR. RANDAZZO: Yes, a few. 13 14 CROSS-EXAMINATION 15 By Mr. Randazzo: 16 Good afternoon, sir. Q. 17 Α. Hello. 18 As compared to Direct Energy, is Calpine Q. 19 in the generation business? 2.0 Α. As compared to Direct Energy? 2.1 Q. Right. 22 Α. Direct Energy is not in the generation 23 business as far as what most people think of as a 24 generator. If you're talking about resources in PJM, 25 they're still not the same, but Direct Energy has

demand response resources.

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- Q. And Calpine is a merchant generator firm; is that correct?
 - A. Correct.
- Q. Now, on page 2 of your testimony, at line 16 -- starting on line 16 and ending on line 18, I just want to make sure I've got this correct. You're saying that the testimony that you are presenting may represent the position of RESA as an organization, but may not represent the views of any particular RESA member; is that correct?
 - A. That's correct.
- Q. And yet you're testifying on behalf of RESA; is that correct?
 - A. Yes, I am testifying on behalf of RESA.
- Q. Now, in your testimony, you talk about rider RRS. Would it be correct, sir, that regardless of what happens, how the Commission disposes of the issues related to rider RRS, that purchase power agreements are still going to exist to supply the generation requirements of retail customers, correct?
 - A. Is it a legal question?
- Q. No, just commercial practice. There has to be both sale and purchase power agreements upstream of every retail purchase power agreement,

correct?

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- A. I don't know. I'm an expert in business rules and regulatory affairs and stakeholder processes at PJM, so I'm not sure what's required for a bilateral to be set up in the first place. I'm aware of people that enter into bilaterals, but I'm not as familiar with whether they're legal or not legal.
 - Q. That really wasn't my question.
 - A. Sorry about that.
- Q. Let's try it again. Would it be correct, sir, that for every retail purchase agreement of electricity, there is a corresponding wholesale transaction?
 - A. A one-to-one ratio, no.
- Q. And how is it that retail customers obtain purchased electricity?
 - A. Through typically -- although there's different setups, typically through a load-serving entity of some sort.
 - Q. And would the retail customer need to enter into some sort of agreement to purchase that electricity?
- A. Well, for instance, PJM will charge the load-serving entity the price to purchase all the

capacity. I'm sorry. I'm trying to follow you.

Q. I'm sure it's my questions.

Are you aware of how retail electric customers in Ohio receive generation supply?

- A. Not intimately, no.
- Q. At all?

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- A. At all, yes.
- Q. And what's your understanding?
- A. My understanding is that at a wholesale level, there's typically load-serving entities of some sort that you can buy the power from those load-serving entities, buy the generation or the supply to supply those to the end-use customers. So there's a wholesale transaction where I'm heavily -- where I know a lot of the rules and hope to help out here.

And then there's the retail side of things where I'm not as intimately involved, but I believe that then the LSE has to have some kind of rate on file. Whether the LSE makes money or uses money is kind of irrelevant from an LSE's perspective —— I mean, not from the LSE's perspective but customer's perspective because they sign up for a rate usually. And I think the other way to get retail service in Ohio is through more of a standard

offer service through the companies.

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- Q. And would it be your understanding that there are agreements in both cases? In other words, if customers, retail customers, are obtaining generation supply through what you call a load-serving entity, there would be agreements associated with that transaction?
- A. Yeah. The load-serving entities have a reliability assurance agreement that they sign with PJM to purchase the wholesale power. They also are signatories to the PJM operating agreement, and they probably sign other things too.
- Q. Now, at page 6 of your testimony, line
 14, beginning with the sentence that starts on that
 line, you indicate that "PJM would need to do
 something." Is it your understanding that PJM has a
 unilateral ability to act in the areas that you
 described in your testimony?
- A. I believe in the operating agreement. You're testing my memory a little bit. I believe in the operating agreement, it has -- PJM itself has a responsibility to maintain efficient markets. That's my recollection. I don't have the document in front of me.
 - Q. More specifically, sir, if PJM was going

to make any changes of the type that you describe in
your testimony, wouldn't it need to make an
application to the Federal Energy Regulatory
Commission?

- A. Well, there's multiple ways that that can occur.
- Q. Answer my --

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MR. PETRICOFF: He was answering. He should be allowed to finish.

EXAMINER PRICE: First allow the witness to finish his answer. Then you can move to strike anything you think is nonresponsive.

MR. RANDAZZO: I'll withdraw the question.

- Q. To the extent that PJM would change its rules related to such things as the minimum offer price rule, would it need to seek approval of the Federal Energy Regulatory Commission?
 - A. If PJM initiated, yes.
- Q. Well, that's what you're talking about in your testimony, if the PJM initiated something, right?
- A. This relates to the question I was trying to answer before.
- MR. RANDAZZO: I'll withdraw my question,

1 your Honor.

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MR. PETRICOFF: Your Honor, he should be allowed to finish regardless.

EXAMINER PRICE: The question is withdrawn. Let's just move on.

- Q. Now, with regard to -- were you here earlier today to hear Dr. Bowring's testimony?
 - A. Yes, I was.
- Q. Did you hear him discuss his views that the renewable mandates are subsidies?
- A. I heard parts of it. I was reading a little bit during the testimony.
 - Q. Did you hear that?
 - A. I think I heard that, but, again, I was coming in and out of the conversation.
- Q. Has Dr. Bowring or PJM done anything to address those subsidies?
 - A. The subsidies for --
 - Q. As renewable energy resources.
 - A. Yes. There was huge discussion in the PJM stakeholder process where I primarily do my business. Market monitor also operates in that environment, and I think it was the market's reliability committee. We discussed changing the MOPR a few years back related to something that

happened in Maryland and New Jersey. That was related to new resources, though, not existing resources. And in that regard, there were stakeholders pushing -- a strong push and market monitor, if I recall -- and I'm not the market monitor, so I'm recalling what he said. The market monitor pushed very strongly that the MOPR should be more expansive and not just be limited to more of the traditional types of resources; CT, CC, and coal.

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So back then, yeah, I recall him potentially trying to get the renewables for basically the new-entry renewables I'm referring to, just to be clear, the new-entry renewables to prevent them from offering in at zero. Ultimately, though, he was not successful with that, and obviously the stakeholders take different positions. There's over 900 stakeholders in PJM.

- Q. And it's clear to you that PJM never modified the minimum offer price rule to deal with the subsidies for renewable resources; is that correct?
 - A. Oh, it's very clear, yes.
- Q. Now, at page 13 of your testimony, actually line 19 and 20 in response to question 23, you mentioned deliverability limits. Do you see

that?

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- 2 A. Yes.
 - Q. Now, would deliverability limits be the same as transmission constraints?
 - A. Deliverability limits are a type of transmission constraint, but there are other types of transmission constraints, too. So if you're asking if it's a subset of that, I can say yes. Is that what you're asking?
 - Q. Right.
- 11 A. Yes.
 - Q. And page 22 at the bottom of the page, the sentence that starts on line 23, when you say, "Where the market location is incapable of responding," would it be fair to say that what you're referring to there is where the capacity resource is located within a particular zone are incapable of responding? Would that be a fair way to more specifically state what you're getting at there?
 - A. No, not completely.
 - Q. Well, can we start in part at what you're getting at?
 - A. Yes.
- Q. So when generation resources or capacity resources located within a particular zone in PJM are

inadequate to satisfy the load within that zone, would one of the responses from PJM be to require the construction of transmission?

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A. Feel free to strike this, but I think what you're trying to ask me -- I think what you're trying to ask me is more related to where would new capacity locate, because that's what the question is kind of relating to. And if new capacity -- you can strike it if you want. If new capacity is not there, then what happens is, yeah, PJM would do a transmission build. If existing capacity is already there, there's nothing to build.

And the third topic, which you might eventually ask me about, is if something retires, and if something retires and then is not replaced by something else, then you also see transmission build. If that helps -- sorry.

Q. Well, we got there eventually. Thank you.

Now, if you know, do you know what position RESA took or Calpine took or Direct Energy took with regard to the above-market capacity pricing authorized by this Commission for AEP Ohio?

MR. PETRICOFF: Object as to Direct Energy and Calpine. He is the RESA witness and

1 cannot answer for the rest of it.

2 EXAMINER PRICE: He can answer if he

3 knows.

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- A. No.
- Q. Did you evaluate the positions that have been taken or review the positions that have been taken by RESA in other Ohio Commission cases for purposes of preparing your testimony?
 - A. I think RESA took a position, especially in New Jersey, and I have a vague recollection of reviewing that.
- Q. Okay. Other than that, anything else?

 I'm talking about Ohio Commission decisions.
 - A. Ohio Commission decisions, I'm sorry, I did not answer that question correctly.
- 16 O. That's okay.
- 17 A. The answer would be no.
- 18 MR. RANDAZZO: That's all I have. Thank

19 you.

- 20 EXAMINER PRICE: Thank you.
- 21 Mr. Kurtz?
- MR. KURTZ: Could I go after the company;
- 23 your Honor?
- 24 EXAMINER PRICE: You may.
- 25 Mr. Kutik?

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2 CROSS-EXAMINATION

By Mr. Kutik:

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- Q. Good afternoon, sir.
- A. Good afternoon.
- Q. Let's see if I can get a couple things straight first off. Your former employer was an entity called Direct Energy, LLC, correct?
 - A. Correct.
- Q. And there were two affiliates that Direct Energy, LLC, had. One was Direct Energy Services, LLC, and another was Direct Energy Business, LLC, correct?
- A. Those were two affiliates. If you're saying that's all of them --
- Q. No, I'm saying there were those two among others.
 - A. Among others.
- Q. And as far as you know, both of those companies are certified to be CRES providers in the state, correct?
- 22 A. Correct.
- Q. But your direct employer, Direct Energy,

 LLC, was not certified, correct?
- 25 A. I believe that's correct.

- Q. Now, you then left the Direct Energy family and you went to Calpine in April of this year, correct?
 - A. Correct.

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- Q. And so you were not then working for a business affiliated with a CRES provider until a week ago?
 - A. Yeah, October 1st.
- Q. Okay. Now, you don't hold any positions in RESA, correct?
- 11 A. No, I do not.
 - Q. And until a couple weeks ago, maybe this week, last week, you were not -- or Calpine was not a member of RESA, correct?
 - A. Correct.
- Q. And you don't hold an office or you're not on any committees at RESA?
- 18 A. No, I'm not.
- 19 Q. Now, would it be fair to say you don't
 20 have experience doing a forecast or projection of
 21 market prices, correct?
- 22 A. Correct.
- Q. And you have not on a regular basis
 provided regulatory monitoring or advocacy services
 to your employers letting to Ohio, correct?

A. I hate to do this, but can you repeat the question.

(Record read.)

- A. Correct. Sorry, Mr. Kutik.
- Q. We'll mispronounce each others' names and I will not be offended if you won't.
 - A. Maybe we should go with first names.
 - O. Or sir.

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- A. Sir.
- 10 Q. You can call me counsel. I can call you sir.
 - Now, the first time that you knew anything about the possibility of testifying is when your counsel at Direct approached you and told you that they wanted you to testify?
- 16 A. Correct.
 - Q. And before then, you had not reviewed the companies' filings in this case, correct?
- 19 A. That's correct.
- Q. In fact, you've mainly gained your
 understanding about what the companies are proposing
 through counsel and reading some of the companies'
 filings, correct?
- A. That's correct.
- Q. And you reviewed the companies'

application and some, but not all, of the companies' testimony, correct?

A. That is correct.

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- Q. And certainly you reviewed the documents that were cited in your testimony?
 - A. That's correct.
- Q. But you don't recall reviewing any documentation that outlines what the proposed transaction between the companies or FES would be, correct?
- A. I know there's a PPA, but I don't know, again, whether it's going to be allowed or not allowed or how it's allowed and those types of things.
 - Q. Let's get back to my question. My question was, you don't recall reviewing any documentation that outlines what the proposed transaction between the companies or FES would be, correct?
 - A. I think that's correct.
- Q. Now, in coming to your opinions in this
 case, you did not speak with anyone from PJM,
 correct?
 - A. Not on this issue, correct.
 - Q. Or with the PJM market monitor, correct?

- A. That's correct.
- Q. And you don't specifically recall reading the ESP statute for purposes of your testimony or preparing your testimony?
 - A. Correct.

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- Q. And you don't know if there is a statute relating to anti-competitive subsidies, correct?
- A. I'm trying to remember the last time I talked to you. I might have come to an understanding that there is one.
- Q. Well, at the time that you wrote your testimony, would it be fair to say that you didn't know whether there was a statute relating to anti-competitive subsidies?
- A. Correct.
- Q. And do you believe that the ESP statute requires an ESP every three years, correct?
 - A. Correct.
 - Q. Now, you didn't do any modeling of rider RRS, correct?
 - A. Did you say modeling?
 - Q. Yes, I did.
- A. No, I did not do any modeling of RRS.
- Q. And you didn't develop any forecast of the prices or costs for purposes of this case for

5078 1 rider RRS? 2 Α. That's correct. 3 You didn't do any modeling or forecasting Q. 4 of PJM, correct, for purposes of this case? 5 Α. That's correct. And you're certainly not an expert in the 6 Ο. 7 Ohio retail electric market? 8 Α. That's correct. 9 You don't have any opinions as to the 10 competitiveness of the Ohio retail market, correct? 11 Based on data, no. I more look at rules 12 and how they interact with the competitiveness in an 13 area. 14 So the answer to my question is yes? Q. 15 Α. I think so. 16 You haven't reviewed and are not familiar 17 with the amount of shopping that takes place in Ohio, 18 correct? 19 Α. No. 2.0 What I said was correct? Q. 2.1 Α. Correct. Thank you. 22 And you haven't reviewed any filings in Q. prior ESPs, correct? 23 24 Α. For Ohio? 25 Q. Yes.

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- Q. Now, your job, at least at Direct Energy, did not include working with retail customers directly, correct?
 - A. Typically not.
- Q. And you've done no research in retail customer preferences, correct?
- A. No research as I would use the word "research."
- Q. And you're not aware of any studies on retail customer preferences, correct?
- A. I may be aware of studies. I may have read something, but I'm certainly not -- I can't cite what those examples would be, but I'm sure I probably read things over the years.
- Q. None come to mind that you could talk about intelligently today, correct?
- A. Correct.
- Q. And you have very limited knowledge of the products offered, for example, by Direct Energy affiliates in Ohio, correct?
- A. I have no direct knowledge of the products offered?
- Q. No. I said you have very limited knowledge.

A. Oh, yes, correct.

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again?

answer to my question yes.

- Q. Now, I want to talk to you a little bit about what you understand about the companies' proposals in this case. You believe that the companies are seeking approval of a PPA, correct?
- A. I probably read a little bit into that statement. I believe they're seeking approval of the PPA costs to be passed on to the end distribution customers.
- Q. Is the answer to my question yes?

 MR. PETRICOFF: Objection, your Honor.

 He answered the question.

MR. KUTIK: I'm not sure he did, your Honor. That's why I'm asking the question again.

EXAMINER PRICE: Objection is overruled.

Please go ahead and answer the question.

THE WITNESS: Can you repeat the question

EXAMINER PRICE: The question is, is the

MR. PETRICOFF: Your Honor, may I have the question before that question read back?

MR. KUTIK: I can repeat it, your Honor.

Q. (By Mr. Kutik) Isn't it true that you believe the companies are seeking approval of the

5081 1 PPA? 2 No, not without the other context that I 3 I think if somebody asked me that provided. 4 question, I would read the rest of what I said before. 5 MR. KUTIK: Okay. May I approach, your 6 7 Honor? 8 EXAMINER PRICE: You may. 9 Sir, I've handed you what appears to be a Ο. 10 transcript from a deposition that I took of you on 11 February 4, 2015. 12 MR. PETRICOFF: Your Honor, may I have a 13 moment to get my copy of the transcript? 14 EXAMINER PRICE: You may. 15 MR. PETRICOFF: I'm ready now. 16 Is that correct, sir? Q. 17 Α. That's correct. 18 And you recall having your deposition Q. 19 taken, correct? 2.0 Α. Correct. 2.1 0. And at that deposition, you swore an oath 22 to tell the truth? 23 Α. Yes. 24 And at the deposition, I asked you 25 whether you wanted to take the opportunity after the

deposition was transcribed to read the record and make any corrections?

- A. Correct.
- Q. And you took that opportunity; did you not?
- A. I did.

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- Q. Now, I want to refer you, sir -- I want to refer you, sir, to page 78 of your deposition.

 Are you there?
- A. Not yet. Yes, sir.
- 11 Q. Starting at line 1, did you not answer 12 the following questions the following way:

Question: "All right. Now, I want to ask you a question. I want to ask you a little about what -- about your understanding about what the companies have proposed. In this case is it your understanding that the companies are seeking approval of a purchase power agreement?"

Answer: "Yeah, I would call it a purchase power agreement, yeah."

Question: "So the answer is yes?"

22 Answer: "Yes."

That was your deposition testimony,

24 correct?

25 A. Correct.

Q. Thank you. Now, you believe that the companies proposed to have the PUCO set or approve the price to be paid under the proposed PPA, correct?

- A. The price under the PPA is not specified until after -- until after you estimate it for each year, and then there's a true-up with it. So I'm not -- I don't think there's an actual dollar figure upfront that you see.
- Q. But RRS, as far as you're concerned, will set the price that the companies will pay FES in the future if approved, correct?
 - A. Yeah. It will determine the payments.
 - Q. So the answer is yes?
- A. I'm worried about the last one where I read into your question and you missed a piece of it, so I'm trying to make sure I understand your question and add what my interpretation of your question is.
- Q. So, again, the answer to my question is yes?
- A. No. The answer is what I provided earlier.
- Q. Let me refer you again to your deposition, sir. And let me refer you specifically to page 78 again.
- 25 A. Okay.

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Q. Did you not give the following answer to the following question starting at line 23 on page 78.

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Question: "All right. So your understanding is the companies propose that the PUCO set the price that FES, FirstEnergy Solutions, would pay the companies, correct?"

Answer: "Not at this -- they will not do that at this point, but at some point in the future after they have already agreed to the concept, they will."

Was that your answer, sir?

- A. Yes, that's consistent with my answer here.
- Q. Well, we can agree to disagree on that, sir. You believe that the companies would have no risk of nonrecovery under this proposal, correct?
- A. I believe they would have no risk of nonrecovery for costs that are, I guess, within normal costs, prudent-type costs, obviously, the prudency-type review. But assuming that they do everything reasonably, using terminology I know, according to good utility practice and all that, which may not be optimal, which is good utility practice, it may not be good as a competitive market

would produce, yes, I think they would recover 100 percent.

- Q. All right. So there is a risk, however, that the Commission could find that certain costs that the companies paid FES were not reasonable, correct?
 - A. There is a risk.
- Q. And if that happened, the companies then would not recover that portion of the costs that they paid to FES, correct? That's how you understand it works, right?
 - A. Correct.

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- Q. Now, you understand that the companies propose, as we just talked about, the PUCO would have a right to audit the PPA's cost, correct?
 - A. Correct.
- Q. But you think if the PUCO said that the costs were improper, the companies wouldn't have to pay FES for those costs, correct?
 - A. Yeah, in very general-speak.
- Q. Now, you don't know whether under the companies' proposal, the Commission would have the ability to review the companies' bidding behavior, that is, how the plant's output was offered into the PJM markets, correct?

- A. Correct.
- Q. But you understand that the companies do not propose that the PUCO establish or order the manner in which the plants' capacity or energy would be bid into the markets?
 - A. Yes.

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- Q. You understand that the companies will be offering capacity, energy, and ancillary service into those respective markets, correct?
 - A. Yes.
- Q. And you don't know who owns the plants; is that correct?
 - A. Not 100 percent certain, especially about the OVEC plants.
 - Q. All right. And you don't know if the companies propose one contract or more than one contract, correct?
 - A. I do not know.
 - Q. You understand that the energy purchased under the proposed transaction would not be used by the companies to displace SSO load procured during the auction, correct?
- A. I might have to rethink that one a little bit.
- Could the reporter read it back one more

time just to make sure I don't answer this
incorrectly?

EXAMINER PRICE: Yes, please.

(Record read.)

- A. When you say "energy," you're talking capacity energy or just energy?
 - Q. Energy.
 - A. Yes.

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- Q. And you also understand that the energy purchased by the companies would not be directly provided to shopping customers?
 - A. Not directly, correct.
- Q. Would it be fair to say that you don't know if FES would be required under the proposed transaction to use good utility practices?
- A. It would be fair to say I don't know that, but it would also be fair to say that most things that you see written in the industry usually refer to good utility practice.
 - Q. But you don't know?
- A. I don't know.
- Q. And you don't know whether if FES failed to do so, the companies would not be obligated to pay for any costs relating to those practices that were not consistent with good utility practice?

- A. Yeah, I don't know what the causes are for that.
- Q. And would it be fair to say that you don't know if FES would be required under the proposed transaction to pay upfront for any capital expenditures?
 - A. No, I would not know that.
- Q. And you don't know whether FES would be prohibited under the proposed transaction from accelerating depreciation unless the companies agreed?
 - A. No, I would not know that either.
- Q. Now, regarding rider RRS, you understand that it's a generation-related rider, correct?
 - A. Yes.

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- Q. And if capacity prices went up, the rider RRS charge would move in a positive direction for customers, correct?
- A. The RRS is related to energy and capacity. So if the capacity went in one direction so that the resources cleared more money there and you still have to look at the energy market, the capacity markets is less than 20 percent of the marketplace. The energy and ancillary services are the bulk.

Q. Let me refer you to your deposition, sir, page 91.

Did you not give the following answer to the following question starting at line 2:

Question: "That's correct. So that if capacity prices went up, the way the companies have proposed how rider RRS would work, the rider RRS charge would move in a positive direction for customers?"

Answer: "Correct."

That was your deposition testimony,

12 correct?

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- A. It has to be taken in context with line 9 --
- 15 Q. Is that your deposition testimony, sir?

 16 MR. PETRICOFF: Your Honor, he's allowed

 17 to finish.

EXAMINER PRICE: Number one, go ahead and finish your answer.

- A. It has to be taken in context with line 9 on page 90. Just because the price of capacity market goes up doesn't mean that the costs of the units weren't out of market. You would have to go above a certain level is another reason.
- Q. Are you done?

1 MR. PETRICOFF: Move to strike, your

2 Honor.

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3 EXAMINER PRICE: Grant the motion to strike.

You need to listen carefully to counsel's questions and answer the question and only that question. On redirect, Mr. Petricoff will have a chance to ask any questions that might give the Commission the context that you feel the Commission should know or any other information you think the Commission should know about the answer.

- Q. So I read that correctly, correct?
- A. You read my deposition correctly.
- Q. Now, I'm going to ask you some questions about PJM. Would it be fair to say that easily 160,000 megawatts of generation have been bid into the PJM auctions for planning years 2015-'16 and later?
- 19 A. I believe that's the approximate number, 20 yes.
 - Q. And you are familiar with the term "regulated generation," are you not?
 - A. Yes.
- Q. And would it be fair to say that regulated generation would include generation owned

by vertically integrated utilities within PJM's footprint but also located in nonretail choice states?

A. Yes.

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- Q. And those generators are receiving generation-related compensation through bundled retail rates, correct?
 - A. Correct.
- Q. And part of the rates paid by distribution customers would, therefore, include a generation-related component, correct?
- A. I don't know how the individual retail rates are structured, if they put that into an individual component or if they bundle it with something else.
- Q. But in some part of the overall rates that are paid by those customers would be generation cost recovery?
 - A. Correct.
- Q. And you also understand that some of the generation that's owned by that regulated generation that appears in PJM is bid into the PJM markets, correct?
- A. Correct.
- Q. And with respect to the regulated

generation in PJM, Virginia Power or Dominion is one example, correct?

A. Correct.

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- Q. Now, would it also be fair to say that there is also plenty of generation PJM that offers into the RPM auctions at zero?
 - A. Yes.
- Q. And you would think that over -- or you believe that over 50 percent of the generators do that, correct?
- A. That would be reasonable, yes.
- Q. Now, I want to talk to you a little bit about your comments on the minimum offer pricing rule. You follow FERC's orders on that; do you not?
 - A. Yeah. I follow the outcome of them as far as the concepts are concerned and how they relate to business rules for us to follow, not the legality of it.
- Q. Sure. And you understand that the MOPR currently does not apply to nuclear or coal facilities, correct?
- A. I might be incorrect then, because I thought it applied to coal facilities, new coal facilities.
- Q. All right. So you believe that it

currently does not apply to nuclear facilities; is that correct?

A. I think it would probably apply to a new nuclear facility, but I may be wrong.

MR. KUTIK: May I approach, your Honor? EXAMINER PRICE: You may.

MR. KUTIK: Your Honor, I'd like to hand to the witness -- I don't intend to mark this, because I believe it's something the Commission could take administrative notice of -- an order of the Federal Energy Regulatory Commission In the Matter of the PJM Interconnection, LLC, and PJM Power Providers Group versus PJM Interconnection, LLC, FERC Docket Number ER11-2875-000, et al., an order issued on April 12, 2011.

- Q. (By Mr. Kutik) Sir, I've handed you the order that I've just described. You recognize this as an order of the FERC?
- 19 A. Yes.

- Q. And I want to refer you to page 7. Are you there, sir?
- 22 A. Yes, I am.
- Q. And I want to refer you specifically to page -- to footnote 16. Do you see that?
- 25 A. Yes, I do.

Does that refresh your recollection as to 1 0. 2 whether the MOPR applies to nuclear coal facilities? 3 MR. PETRICOFF: Your Honor, I want to 4 object. At this point it's the -- the foundation 5 question was did you recognize this as an order of the Federal Energy Regulatory Commission? But we 6 7 don't know whether he has seen this, read this, or 8 understood it, and it's unfair to give him something 9 that he doesn't know and then ask him questions from 10 specific pages.

MR. KUTIK: I merely asked if it refreshed his recollection, your Honor. Apparently he was having problems with recalling what the detail of the rule was.

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MR. PETRICOFF: The point was he hasn't said yet whether he recognized this.

MR. KUTIK: He doesn't have to recognize it.

EXAMINER PRICE: Let's allow the refreshed recollection question, and then we'll go on from there.

- A. I appreciate showing me this. No, I did not realize this.
- Q. Okay. So it does refresh your recollection, sir, that the MOPR does not apply to

nuclear, coal facilities?

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- A. Yes.
- Q. Would it also be true to say the MOPR for such facilities is set at zero?

MR. PETRICOFF: Can I get a clarification as to what facilities?

MR. KUTIK: Coal and nuclear.

- A. I think it's -- based on what you just showed me, I think the answer is yes, but MOPR currently only applies to new generation.
- Q. And you've anticipated my next question. Would it be fair to say that the MOPR does not apply to existing generation facilities?
 - A. Correct.
- Q. And would it be fair to say that in April of 2011, PJM proposed extending the MOPR for all new resources after the BRA in which the resource first cleared? Do you recall that?
 - A. Yes, I recall that.
 - Q. And the Commission rejected that, correct, the FERC?
- A. I don't recall if I've ever seen it, but
 I believe you if you're implying that it did.
- Q. Well, let me see if I can refresh your recollection again.

- A. I appreciate that.
- Q. Could you look at page 52 of the
- 3 April 12, 2011 order that I just handed you.
 - A. Page which one? Which page?
- 5 0. 52.

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- 6 A. 52.
- Q. In paragraph 172 to 174. And the
 Commission found that PJM's proposed revision was not
 just and reasonable?
- 10 A. Correct.
- 11 EXAMINER PRICE: Excuse me, Mr. Kutik.
- 12 Are you having your recollection
- refreshed, or are you learning new things?
- 14 THE WITNESS: As far as in the
- 15 | stakeholder process where that issue is discussed, I
- 16 know all about it, and I know the stakeholders wanted
- 17 to change it. I know the market monitor wanted to
- 18 change it.
- Once it was filed at FERC, I'm learning
- 20 new things on what rulings necessarily came out.
- 21 Usually if a ruling comes out requiring us to do
- 22 something, then it comes back to the stakeholder body
- and I see it again, and then we have to figure out
- 24 how to implement the order. If it doesn't get
- approved, it doesn't necessarily come back to me to

figure out how to implement it with the other stakeholders in PJM.

- Q. (By Mr. Kutik) Now, are you aware also that the FERC again considered proposals to revise the MOPR in 2013?
- A. There was at least two times, so, yeah, 2013 is probably correct.
- Q. And one of those proposals was to include it extending the mitigation period, correct?
 - A. Correct.

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- Q. And that was also rejected, correct?
- A. Correct.
- Q. Now, I want to talk to you about your comments about what happened -- or your comments about what you believe PJM would do if the Commission here approves the companies' ESP; in particular, you said that with respect to PJM's response to what happened in New Jersey and Maryland.
- Would it be fair to say that in both of those states, it was proposed or established that the generator would be in charge of bidding the capacity and energy into the wholesale market?
- A. They would be in charge of it, but they would be directed to put it -- to offer it in in such a way that it cleared.

Q. And in both states, the generator was
required to bid the capacity in a certain way that
you just mentioned, correct?

A. Correct.

Q. And in both states the rules establish a

- Q. And in both states the rules establish a specific price or formula by which the generation would be paid, correct?
- A. You mean outside the capacity market, correct?
- 10 Q. Yes.

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- 11 A. Yes.
- Q. And in both states, the generation was going to be new generation?
- 14 A. Correct.
- Q. Now, it's also fair to say that in April
 of 2011, the FERC decided to eliminate the exception
 for state-mandated generation to some degree,
 correct?
- 19 A. Correct.
- Q. And the FERC was still concerned about, quote, uneconomic entry, correct?
- 22 A. Correct.
- 23 Q. And that means new facilities, correct?
- A. It means uneconomic new facilities.
- Q. Now, the FERC has never suggested or made

any effort to apply MOPR to existing facilities, correct?

- A. Not in PJM, but I don't know elsewhere.
- Q. Fair enough. And FERC has not approved any effort to require -- well, strike that.

I want to talk to you a little bit about the polar vortex. You don't know what FirstEnergy plants were out during the polar vortex, correct?

- A. I'm not sure of all the plants that were out during the polar vortex, and the polar vortex wasn't one day; but since then, I've heard of a couple that have been out.
- Q. Well, certainly you didn't know what FirstEnergy plants were out during the polar vortex when you wrote your testimony, fair to say?
 - A. Yes.

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- Q. And PJM has put -- has, in fact, adopted proposals to change the rules as a result of the polar vortex, correct?
 - A. Yes.
- Q. And, particularly, that's the capacity performance rules, correct?
- A. And another filing that they did at FERC,

 I don't know the docket numbers, but they changed

 requirements about things like outside management

control excuses for not being there, but it wasn't actually the CP filing. So they've done a few things.

MR. KUTIK: Your Honor, may I have the question reread, please?

EXAMINER PRICE: You may.

(Record read.)

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MR. KUTIK: And the answer, please? (Record read.)

MR. KUTIK: Move to strike, your Honor.

MR. PETRICOFF: Your Honor, if I may, I think he's merely completing the answer to the concept that they were looking at, what is being covered by the CP rules, and he's indicating there's important information that's relevant to what is in and out, but it's not in the CP rule, per se.

EXAMINER PRICE: I'm going to avoid answering by invoking the one Mulligan for this particular witness.

But in the future, if you could please focus on counsel's question and answer only that question.

THE WITNESS: I will try my best.

Q. (By Mr. Kutik) So let's go back to my question, which is isn't it true that one of the

proposals that was created as a result of the polar vortex was the capacity performance proposal, which ultimately became the capacity performance rule, correct?

- A. That question, correct.
- Q. There's also a proposal to change the offer cap to a percentage of net CONE, correct? To, I guess I should say, a higher percentage of net CONE, correct?
 - A. Correct.

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- Q. And you believe that these proposals and this rule will put upward pressure on capacity prices, correct?
 - A. Correct.
- Q. You would agree with me that the overwhelming majority of retirements in PJM in the last five years have been coal-fired, correct?
 - A. Correct.
- Q. You would also agree with me that the overwhelming additions in PJM in the last five years have been gas-fired units, correct?
 - A. Correct.
- Q. And would you also agree with me that gas plants represented proportionately a higher percentage of plants with problems during the polar

vortex than other fuel-type plants?

- A. Correct.
- Q. You are aware, are you not, of some hedging strategies for retail electric service providers, correct?
 - A. Correct.
- Q. And you know what they were for at least three of your employers, Baltimore Gas & Electric, Old Dominion Electric Cooperative and Direct Energy, correct?
- 11 A. Yes.

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- Q. And I assume that you've become aware of hedging strategies at your new employer, Calpine?
 - A. No, I have not.
 - Q. You were at least aware of hedging strategies of the three other employers that you have. And would it be fair to say that you don't know for sure what other companies do with respect to their hedging strategies?
 - A. I believe that's correct.
- Q. And one strategy that you're aware of is long-term bilateral contracts for fuel?
 - A. Correct.
- Q. Another strategy is relying on your own -- or that entity's own generation?

5103 1 Α. Correct. 2 Another strategy is buying futures? Q. 3 Correct. Α. 4 But NYMEX and other exchanges don't go 0. out very far, correct? 5 6 Α. Correct. 7 And your understanding is that the NYMEX 8 futures market is generally illiquid beyond three 9 years? 10 Α. Correct. 11 Now, you're not an economist, are you? 0. 12 Α. No, I'm not. 13 Q. And you've never done a market power 14 analysis for purposes of this case? 15 Α. No, I have not. And you don't know if FES has been able 16 Ο. 17 to exercise market power, correct? 18 Α. No. 19 Now, for the ATSI region, you don't 2.0 consider that to be a separate market, correct? 2.1 Α. No. 22 What I said was correct? Q. 23 No, what you said is incorrect. Α. 24 Let me refer you, sir, to your Ο. 25 deposition, page 136.

5104 1 MR. PETRICOFF: 136? 2 MR. KUTIK: Yes. 3 Let me know when you're there, please. Q. 4 Α. I'm at page 136. 5 Ο. And did you not provide the following answer to the following question starting at line 24 6 7 at page 136: 8 Question: "Would you consider ATSI to be 9 a separate market?" 10 Answer: "No." That was your deposition testimony, was 11 12 it not? 13 Α. Correct. 14 MR. KUTIK: May I approach, your Honor? 15 EXAMINER PRICE: You may. 16 MR. KUTIK: Your Honor, we would like to have marked for identification as Company Exhibit 81 17 an article from the Harvard Business Review called 18 19 "The Five Competitive Forces that Shape Strategy," by 2.0 Michael E. Porter. 2.1 EXAMINER PRICE: It will be so marked. 22 (EXHIBIT MARKED FOR IDENTIFICATION.) Now, sir, in your testimony, you refer to 23 Q. 24 something called Porter's five forces, correct? 25 Α. Correct.

5105 And that Porter is Michael E. Porter, 1 0. correct? 2 3 Correct. Α. 4 You are familiar or you've seen this article before from Professor Porter? 5 I believe so. 6 7 Ο. And between Professor Porter and you, 8 would be more authoritative as to what those 9 forces are and how they should be used? 10 Α. No. 11 Okay. So you think that you're more of Ο. 12 an authority on Porter's five forces than Professor Porter; is that your testimony? 13 14 No. You said in how they're used. Α. Okay. So in terms of how they should be 15 Q. 16 used, you would be more authoritative than Professor 17 Porter; is that your testimony? 18 Α. Not how they should be used, but how they 19 are used, which I think is your original question. 2.0 My question is how they should be Ο. No. 2.1 Are you more authoritative than Professor 22 Porter on how Porter's five forces should be used? Should be used? 23 Α. 24 Ο. Yes. 25 Α. In a general context.

Q. In any context.

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- A. To say yes and no. In a general sense, he's more authoritative, and in a detailed sense as far as applying them to the industry where you have knowledge of the different forces at play, the person in that market, industry, would be more authoritative.
- Q. Okay. But in terms of how the analysis, the general structure of the analysis, you would concede that Professor Porter be more authoritative than you?
 - A. Yes.
- Q. Now, would it be fair to say that these forces that Professor Porter describes help companies understand the structure of an industry and stake out a position that is more profitable and less vulnerable to attack?
- A. In a general sense, yes, but I'm not sure if it's granular enough to say that.
- Q. So you're generally agreeing with my proposition?
 - A. Probably the market within the industry.
- Q. Well, let me refer you, sir, to page 2 of this document, the page that's numbered 2. You state -- you see the top, sir, there's a statement

that says, "awareness of the five forces can help a company understand the structure of its industry and stake out a position that is more profitable and less vulnerable to attack."

- A. I see that.
- Q. Would you agree with that?
- A. Yes. From a general high level, yes.
- Q. Would you also agree that good industry analysis does not just list pluses or minuses, but sees an industry in overall systemic terms?
 - A. Yes.

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- Q. And when using Porter's five forces, analysts look at industry structure quantitatively rather than be satisfied with lists of quantitative factors?
- A. Yeah, I believe that.
 - Q. Now, defining the industry is important when using Porter's five forces, correct?
 - A. Correct.
- Q. And the industry here is the PJM wholesale market for electricity, correct?
- 22 A. That's the market in the industry.
- Q. So the answer to my question is yes?
- 24 A. No.
- 25 Q. Let me refer you to your deposition, sir,

page 167. Are you there, sir?

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- A. Not yet. One second. I am there.
 - Q. Did you not give the following answers to the following questions starting at line 16:

Question: "In your testimony when you are discussing Porter's five factors, what industry are you discussing?"

Answer: "We're discussing market models within the electric utility industry."

Question: "Okay. Are you talking about the wholesale market for electricity?"

Answer: "Yes."

Question: "Are you talking about the PJM wholesale market for electricity?"

15 Answer: "Yes."

That was your deposition testimony, was it not?

- A. Correct.
- Q. And you would agree with me, would you not, that wholesale power is not a substitute for wholesale power?
- A. I don't think that that's -- you just want me to say yeses and nos. Can you repeat the question again?
 - Q. Wholesale power is not a substitute for

wholesale power?

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- A. Wholesale power can be a substitute for wholesale power.
- Q. Let me refer you to your deposition, sir, page 168. Did you not give the following answer to the following question starting at line 16:

Question: "That wasn't my question. My question is, is he -- is a substitute for wholesale electric power?"

10 Answer: "No."

That was your deposition testimony, was it not?

A. Yes.

- Q. Now, would it also be fair to say that customers of wholesale power in PJM are the LSEs?
 - A. Largely, yes.
- Q. And the bargaining power of load-serving entities is influenced by the PJM's rules, correct?
 - A. Yes.
- Q. And suppliers to generators would be entities like fuel suppliers or suppliers of machinery for plants, correct?
- A. I apologize. I zoned out for a second.

 I was thinking about the last question.
 - Q. Sure. Can it be read, please, your

5110 1 Honor? 2 EXAMINER PRICE: Yes. 3 (Record read.) 4 Α. Correct. 5 Ο. Now, on a different topic, you're familiar with the RMR process, correct? 6 7 Α. A level of familiarity. 8 Q. You have a general familiarity? 9 Α. Yes. 10 And you understand that part of that is a Q. notice requirement that a generator must give PJM 11 12 before the unit retires, correct? 13 Α. Correct. 14 And that's a three-month requirement, 15 correct? 16 Correct. 17 And you don't know if the PUCO could Q. 18 require a longer notice period, correct? 19 No, I don't know. Α. 2.0 And you would agree with me, would you Q. 2.1 not, that Ohio has a role to play in the development 22 of generation within its borders? 23 Α. Yes. 24 And a state might have an interest in 25 having a generation plant with the jobs that a

5111 generation plant would support, correct? 1 2 Α. I assume they would. 3 And a state might also have an interest Q. 4 in reliability for its citizens, correct? 5 Α. Yes. MR. KUTIK: May I have a minute, your 6 7 Honor? 8 EXAMINER PRICE: You may. 9 Is it your understanding, sir, that the Ο. RMR is voluntary? 10 11 Α. Yes. 12 MR. KUTIK: I have no further questions. 13 Thank you, sir. 14 EXAMINER PRICE: Thank you. Mr. Kurtz? 15 16 MR. KURTZ: Thank you, your Honor. 17 18 CROSS-EXAMINATION 19 By Mr. Kurtz: 2.0 Q. Good afternoon, sir. 2.1 Hi. How are you doing? 22 To the best of your knowledge, in New Q. Jersey and Maryland schemes, scenarios that you refer 23 24 to in your testimony, would you agree that the 25 purpose of those programs was to affect wholesale

capacity pricing?

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- A. That is my opinion, but I can't -- I think that's what you're asking me. If you're asking me do I have proof of that, no, I do not.
- Q. Is that your understanding of why the stakes did that, to reduce capacity pricing in those zones?
 - A. It's more my theory than understanding.
- Q. Okay. What is the purpose of the minimum offer price rule?
- A. It's to prevent market power by buyers to artificially drive down the costs that the overall, I guess, market entity is paying by actually spending money on a resource and offering it in below its actual costs.
- Q. I think you agreed with Mr. Kutik that the minimum offer price rule does not apply to any existing power plants?
 - A. Correct.
- Q. And the minimum offer price rule does not apply to new wind generation?
 - A. Correct.
- Q. Does not apply to new solar?
- A. Correct.
- Q. Does not apply to new coal?

A. Correct.

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- Q. And it basically only applies to new gas combustion turbines and combined cycles, correct?
 - A. Correct.
- Q. Calpine Corporation, your current employer, is a major owner of merchant power plants; is that correct?
 - A. Yes.
- Q. All else equal, would an increase in capacity pricing in the PJM markets increase Calpine's profits?
- MR. PETRICOFF: Your Honor, I'm going to object. He's not here on behalf of Calpine.
 - Q. Who are you here on behalf of?
- 15 A. RESA.
- MR. KUTIK: Well, your Honor, it goes to credibility.
- MR. KURTZ: I'll just change the examples.
- Q. Do any of the RESA members own
 generation, or was that just the P3 Group in this
 proceeding?
- A. You know, I'm not sure if some of the RESA members -- oh, wait. Yeah, some of them do.
- Q. Okay. As to those RESA members that own

generation, would an increase in wholesale capacity pricing improve their profits, all else equal?

A. All else equal, yes.

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- Q. And then by the same token, an increase in wholesale capacity prices would drive up rates that consumers ultimately pay, all else equal?
- A. No, not necessarily, because you used the word "ultimately," because ultimately implies long-term.
- Q. No. I meant if the cost of capacity goes up that the load-serving entities have to pay to provide service, wouldn't that result in higher prices to consumers?
- A. No, not necessarily in the long term, because the capacity construct is constructed in behavior that actually -- when you get more generation in the capacity market, especially reliable generation -- I'm going off topic. Do you want me to keep going?
- Q. Not in the long term, but in the short term certainly would raise prices on consumers, correct?
 - A. Correct.
- Q. You mentioned there's 900 stakeholders in the PJM process.

A. Over 900.

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- Q. What committees are you on?
- A. I'm on quite a few. I probably can't recall them all. Now, although there's 900 members, I will point out they don't necessarily all go to all the meetings, but there's a lot there. The members committee is the highest level committee at PJM. I'm on that, and the committee below --
- Q. Stop there. How many members are on the member committee?
- A. The member committee is made up of voting members as opposed to members. Voting -- well, members attend too, but the voting members are what we kind of count. Voting members -- I'm not sure. I think it's 200 something.
- Q. So whenever there's an important proposal, those 200 members vote yes or no on the proposal?
 - A. If they show up, yeah.
- Q. So are there -- when there's a member committee meeting, how many members typically show up for an important meeting?
- A. Well, there's two -- I'm sorry. I forgot the question.
- Q. How many members show up to an important

member meeting typically?

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- A. Let me see. I've never looked around to count it. There's two ways of showing up. One is via teleconference, and the other way is in person.

 I think for a typical MC, probably see, I'm guessing, maybe 80 or so voting members.
- Q. So there's a very large conference room and some people participate by teleconference?
 - A. Correct.
- Q. Okay. And so during an important vote, do you confer with other members to see how they're going to vote and how you're going to vote? Is there any prohibition against that?
 - A. There's no prohibition against that.
- Q. So is there a certain amount of negotiation that goes on?
 - A. Yes.
- Q. Why do people refer to the PJM capacity process as a market?
- A. They don't. They do sometimes, but when you get down to the details of it, most people refer to it as a capacity construct.
- Q. Okay. Because it isn't really a true market. It's maybe a construct intended to get to market-based results, but it's not a market like

there was a market for most products?

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A. No. You have a supply stack in the capacity market which is like a typical market, but only in some respects. Most of the time, the capacity market -- I call it market. If I misuse the terms, I apologize, but that's how we all just talk nowadays.

So with the capacity, you get a supply stack, and even that is usually cost-mitigated offers. If you had a true market, you would have competitive forces disciplining those offers which would lead to the need for less cost capping.

I think there's been two incremental auctions where they actually had the supply stack, not BRAs but incremental auctions where they actually had a supply stack where you weren't cost mitigated, which would be more market-like. And then the other reason it's more of a construct, which is what most people refer to, is because the demand curve is administratively set.

- Q. Is the starting point for the demand curve, the administratively set demand curve, the net CONE?
 - A. CONE. It's cost of new entry.
 - Q. Is that the starting point for the

development of the demand curve?

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- A. It is on the Y axis, but not on the X axis.
- Q. Net CONE is the net cost of new entry, so it's the cost of a combined cycle plant, the capital cost, the property taxes, the carrying charges, the depreciation, less forecasted market revenues for energy and capacity?
- A. Yeah. They do a hypothetical reference resource to determine that. It's not always a CC, though. Sometimes it's a CT.
 - Q. I said combustion turbine. If I said --
- A. It's not always a CT then. Sometimes it's a CC.
 - Q. Which would change all the economics?
 - A. Actually, I don't personally -- I mean I'm not an analyst I think as someone was pointing out earlier. But it doesn't appear to me that it changes things a whole lot between which one you pick.
 - Q. So is it fair -- the administratively determined demand curve, is it fair to say that dozens or scores or hundreds of assumptions go into that?
- 25 A. I'm thinking through what they are. Just

give me a second.

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- Q. Just as to net CONE, wouldn't it be fair that there are dozens or scores of assumptions that go into that calculation?
 - A. Yes.
- Q. And then once you start there, aren't there many more assumptions that have to be made about the slope of the demand curve?
- A. Well, it's administratively set. But in administratively setting it, yeah, you have to -- I don't know if you make assumptions or you set it to produce a certain type of outcome. Like the less slope it has, the more stability it's supposed to give to the capacity prices from year to year. Things like that come into play.
- Q. So this is why PJM sometimes decides whether to go with a vertical or sloping demand curve, and if there's a slope, what the slope should be and should there be ceilings, that type of thing.
- A. They actually changed the demand curve not too long ago and pushed it out from net CONE and made it either convex or concave.
- Q. Can you think of any other commodity in the United States that is administratively set with such interaction as the capacity in PJM? There's no

- committee setting natural gas prices or oil prices or anything like that, is there?
- A. No. I'm thinking back to

 telecommunication days, there might have been a

 parallel with the AT&T -- a long time ago, though.

 They might have.
 - Q. Anything recent or current?
 - A. For commodities? I mean, if you look globally, I suppose, you know, NOPEC is a cartel, but let's just keep it limited to the United States. In the U.S., I can't think of anything.
- MR. KURTZ: Thank you, sir. No more questions.
- 14 EXAMINER PRICE: Mr. McNamee?
- MR. MCNAMEE: No questions.
- 16 EXAMINER PRICE: Ms. Addison?
- 17 EXAMINER ADDISON: No questions.
- 18 EXAMINER PRICE: Ms. Chiles?
- 19 EXAMINER CHILES: No questions.
- 20 EXAMINER PRICE: Mr. Petricoff, redirect?
- 21 MR. PETRICOFF: Could we have five
- 22 minutes?

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- 23 EXAMINER PRICE: You may. Let's go off
- 24 the record.
- 25 (Recess taken.)

EXAMINER PRICE: Let's go back on the record.

Mr. Petricoff, redirect?

MR. PETRICOFF: Thank you, your Honor.

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REDIRECT EXAMINATION

By Mr. Petricoff:

- Q. Mr. Scarpignato, do you remember earlier this afternoon when Mr. Kutik asked you if you were familiar with regulated generators like Virginia Power, and I think you gave a longer list?
 - A. Yes.
- Q. What is the difference between in your -what is the difference that you see between a
 regulated generator like Virginia Power and the kind
 of subsidies that would flow under rider RRS in Ohio
 as proposed?
- A. In Dominion, Virginia Power pay it through to ratepayers, and in Ohio it sounds like it would be paid more by ratepayers. But in Dominion, they get a return based on an individual filing. In other words, if they have a rate approved and during the year they don't make money with the units or as much they expected to make, whatever return they were looking for, they can't just go and collect that from

the ratepayers retroactively for that year. So they're wearing risk in the marketplace.

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Eventually they can go in for a rate case, but when I was with, for instance, Baltimore Gas & electric, it was a long period of time before they would go in for retail rate cases. It wasn't every year. This is formulaic in Ohio. Every year they're going to update and true-up their costs so that their risk is drastically reduced for them? FirstEnergy Solutions Company in getting the revenues and returns it's looking for. It's guaranteed.

In most of the other regulated states, you can argue that it's being paid for by somebody else, but they're not necessarily wearing the risk. It would be individual rate cases, not necessarily every year, that would look at that, and you could — if one of the Dominion resources did not clear RPM and the Commission felt like maybe it wasn't a wise decision by Dominion, they may not allow that in its future retail rates.

Here, whether it clears RPM or not, whether it was a good resource to pick or not, you're guaranteeing that you're going to make those customers whole to their guaranteed rate of return if they made prudent decisions. Lots of people make

prudent decisions based on the information they had at the time, turn out not to be the right market solutions, and that's not necessarily not prudent. But in Ohio, those types of charges might actually be passed on -- looks like they would be passed on to the ratepayers, because I don't know that it fails a prudence review of any sort. So that's kind of the major difference.

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Once again, in other states where they have regulated generation, they're not necessarily -- the ratepayers are not necessarily wearing the risk that that generation is uneconomic in the wholesale markets. In Ohio, the ratepayers are wearing that risk.

- Q. Earlier Mr. Kurtz asked you a question about the effects of an increase in capacity prices. Would an increase in capacity prices at PJM necessarily result in a higher credit or reduced subsidies to the retail customers under rider RRS?
- A. I recall being asked -- I think this is the question, whether CP -- with CP there would be more pressure for capacity prices to be higher, and I answered that, yes, there would be more pressure for higher capacity prices. Higher capacity prices would result in an increased likelihood that the PPA units,

I'll call them that, would clear an RPM. It doesn't guarantee they'll clear, but it increases the likelihood that they will clear. And even if they have costs in excess and there's no MOPR and all that, there's still the chance that the credit is not higher, and there's still a very good chance that the -- if it's not a credit, there would be a charge, that the charge is more; in other words, it would be a negative impact.

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And the reason for that is the capacity market makes up less than 20 percent of the PJM system. I believe last time I looked, I think for 2014, it was about 12.5 percent. But you could look it up in the State of the Market report that was distributed earlier.

So just because you have increased capacity revenues which would reduce any rider charges that have to occur doesn't mean your actual overall costs are less. It doesn't necessarily -- it doesn't necessarily reduce the rider charge or increase the rider credit.

And the reason for that is the energy and ancillary service markets. If you have bad generation -- I'm using the term "bad" kind of loosely here. If you have bad generation that clears

in the capacity market and you force it to clear rather than something new that's highly efficient in the energy market and has redundant backup and things like that that are types of reliability requirements out of CP because it's relatively newer.

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These energy costs under CP can actually be higher. The actual unit that you cleared in the capacity market might have less run hours than a newer source that could displace it in the capacity market and it might also not be available in a time of need, and there's lots of issues with that.

So when we calculate the credit, it's not just did you get more from the capacity market. It's the combination of the capacity market with the energy market. A resource that is not highly efficient is likely to increase the energy costs.

- Q. And the answer you just gave, you indicated that capacity was 20 percent. What is the other 80 percent?
- A. Well, the other approximately 80 percent is the energy and ancillary services market, is what I'm referring to. I'm not looking transmission and distribution and those types of things. I'm looking more at the wholesale marketplace. Maybe I'm looking -- I'm not looking at distribution charges

and those types of taxes.

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Q. And when you're talking about 80 percent for energy and ancillary services and 20 percent, this is the wholesale energy -- total wholesale energy price?

MR. KUTIK: Objection. Leading. EXAMINER PRICE: Sustained.

- Q. Could you explain to us here what -because you've talked about a price. What price were
 you describing when you had these percentages?
- A. It's not a price. It's the amount of revenue that goes towards it and the amount of revenue in the wholesale electric marketplace that goes towards capacity payments is less than 20 percent, 20 percent or less. It changes from year to year. The energy and ancillary service statements, which are also part of the electric wholesale costs, make up approximately the other 80 percent.

So you could have -- you could clear an expensive unit in the capacity market by offering it in below its cost and you have some subsidy to make it up. That subsidy, you could say there's a tendency for that subsidy to be reduced by the higher capacity price from CP, but the bulk of your costs

are in the energy and ancillary energy market, so a small move there with a more inefficient unit that you're keeping around actually increases your -- potentially on the energy side, it's a very negative impact, especially if you don't have run hours.

- Q. One last question. Earlier you were asked about whether the new capacity procedure would increase revenues for generators. Would the new rules -- could the new rules actually decrease revenues for generators?
- A. Can I assume we're talking about the capacity performance rules?
 - Q. Yes.

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A. Yes. With the question regarding capacity performance rules, when you look at it very narrowly, and you say what is the impact going to be on the capacity market? You will see the capacity market prices tend to be higher, as was indicated earlier, which would reduce the subsidy-type effect.

The problem is CP also introduces other rules, and we talk about the energy market. Well, the energy market and the CP penalties -- there's something called CP penalties, performance penalties, basically. If you're not there when you're needed during an emergency event in PJM, you get charged

over \$3,000 per megawatt-hour for every hour you're not there.

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So if you're looking -- if you're looking at a unit that's, say, 1,000 megawatts, something similar to Besse, and it happens not to be there during a capacity performance event, that resource or whoever is entering into the market -- not the resource. Whoever is entering into the PJM market, whoever sold it as a capacity resource -- and I don't know if they have bilateral agreements to deal with this or not, but it's something that should be checked out -- those CP penalties in 20 hours of emergency, in just 20 hours would erase 100 percent of your capacity revenues.

In 30 hours of an emergency, which we've had in years like 1994 when there was rotating blackouts in PJM, you would eliminate 150 percent of your capacity revenues for that resource. So for 1,000 megawatts of resources that don't show up, the capacity performance penalty could be as high as about -- I believe it's about \$300 million.

If you think of the polar vortex, the uplift that everybody complained about was approximately \$500 million. This is a huge sum for \$1,000 resource not being there -- I mean a

1,000-megawatt resource not being there.

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So the penalties would have to be paid by that resource, and I don't know if the ratepayers ultimate pay that penalty, but that's an interesting question.

Now, let's look at the flip side of that.

Now, let's pretend -- not the flip side, but another side, the other side to the same exact issue. Now, let's look at FirstEnergy, and let's pretend they have other units in Ohio besides the PPA units.

Let's say that Besse trips, and those other units in that FirstEnergy Solutions have actually overgenerated. They produce more than their unforced capacity times the P factor, and when they do that, they'll actually get a bonus payment. So you have the ratepayers in a situation I'm describing, you have the ratepayers paying millions, maybe hundreds of millions of dollars to FirstEnergy Solutions for overperforming with other units.

So Besse underperformed, paid the penalties. Does that mean -- I don't know the answer to this. Does that mean the ratepayers are paying that CP penalty? Because it is huge. We talked about a capacity market being about \$2.5 billion.

Now I'm talking about penalties of about 300 million

5130 1 for one unit. So those penalty dollars might 2 actually go to some of the other FirstEnergy 3 resources. If they overperformed, it definitely will. 4 5 I don't know if there's a mechanism in 6 order to get some of that money back or not, but with capacity performance in place, you really need to 7 8 look at what's happening with the capacity 9 performance penalties and what's happening with the 10 capacity performance bonuses. 11 MR. KUTIK: May I have the question read, 12 please? 13 EXAMINER PRICE: You may. 14 (Record read.) MR. PETRICOFF: I have no further 15 16 questions, your Honor. 17 EXAMINER PRICE: Thank you. 18 Mr. Randazzo? 19 MR. RANDAZZO: No questions. Thank you. 2.0 EXAMINER PRICE: Mr. Mendoza? 2.1 MR. MENDOZA: No questions, your Honor. 22 EXAMINER PRICE: Mr. Kurtz? 23 MR. KURTZ: No.

EXAMINER PRICE: Mr. Sauer?

MR. SAUER: No questions.

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Mr. Kurtz?

MR. KURTZ: I actually do have a few questions.

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RECROSS-EXAMINATION

By Mr. Kurtz:

- Q. Is it, of course, true that any unit that clears the capacity performance market could be subject to penalties?
 - A. Correct.
- Q. But it's also true that they could be the recipient, they could be the recipient of bonus payments also, correct?
 - A. Yeah. If they asked me about the reception of revenues, I would have brought that up. The other side, like you said, is you could be the recipient of revenues, and if you get those extra revenues, again, I don't know what happens to them, but it's really something I think the Commission should look at.
 - Q. Well, the construct is whatever units are penalized during an emergency hour that funds a pool of money that goes to the units that did perform in the form of bonus payments.
- A. Not that performed, that overperformed.

Q. Excuse me. That overperformed in the form of bonus payments, so it's a closed loop.

Penalties fund the bonuses, and so if these units receive bonus payments, they could get lots of extra money.

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- A. Yeah, they could get extra -- they could get extra money, but it's not a closed loop. Some of the penalties that -- for instance, if Besse wasn't available, it doesn't even have to trip, it just has to not be available, would go to other FirstEnergy Resources and other PPAs.
- Q. It's a closed loop within PJM. PJM doesn't keep any of the penalty money. It flows it all back to the overperformers in the form of bonus payments?
- A. Correct. PJM, although it's an LLC and could operate at a profit, it operates at a zero profit. It's not a nonprofit, but operates at zero profit.
- Q. So the penalty bonus structure would be good for the PPA units if they overperform and could be bad if they underperform.
- A. Well, if they overperform, it could be good. If they underperform, it could be good for other units outside of them.

- Q. It would be bad for the PPA units if they underperformed during an emergency because they could be penalized?
- A. The PPA units are still owned by

 FirstEnergy Solutions, so I get a little confused. I

 understand your questions. I just don't have the -
 I don't know the answer to some of these.
- Q. Well, you do agree that the PPA units could receive bonus payments or be assessed penalty charges?
 - A. Correct.

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- Q. One last question. The regulated units in Virginia or elsewhere in PJM that operate on a cost-of-service basis, those units could actually achieve more than the authorized rate of return, in other words, they could overearn as well as underearn?
- A. That's correct. That's part of a market mechanism. That's competition at its best. That is --
- Q. I was talking about the cost-of-service units like Dominion.
- A. Right.
- Q. So that's not competition. I mean, they could overearn or underearn the regulated return?

A. They're incentivized to operate more efficiently so they could overearn. Eventually there will be regulatory lag where somebody -- and this is why I get into the ultimate question. So over time you go back in for a rate case, and because you have a natural inclination to perform better, as you say make extra earnings, when you go in for your next rate case, that's kind of seen, even if it's five years down the road. So sometimes in regulatory, I take a longer-term look at things, but I understand what you're saying.

Q. Did your counsel tell you about the multiple commission factors that they will review in approving a PPA?

MR. PETRICOFF: I was going to object.

MR. KURTZ: I'll withdraw the question.

MR. PETRICOFF: What his counsel told him is privileged.

MR. KURTZ: That's fine.

- Q. (By Mr. Kurtz) Do you know that in evaluating a PPA the Commission will look at the shareholder/ratepayer balance of risk and reward?
 - A. I don't know it, but I assume they would.

 MR. KURTZ: Okay. Thank you.

EXAMINER PRICE: Mr. Kutik.

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2 RECROSS-EXAMINATION

By Mr. Kutik:

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- Q. Now, it's correct, is it not, that having regulated generation in PJM offer its generation into the PJM markets is acceptable under the PJM rules, correct?
 - A. Existing generation?
- O. Yes.
- A. Yes.
- 11 Q. There's no prohibition if those units
 12 offer at zero?
- 13 A. There's no prohibition.
- Q. And that's allowed by the market rules, correct?
- 16 A. Yes.
- 17 Q. Now, you haven't been involved in a base 18 rate case in Ohio, have you?
- 19 A. No.
- Q. In your discussions about Virginia Power,
 would it be fair to say in following your answer to
 Mr. Kurtz, that if Virginia Power received additional
 or higher revenues year to year as a result of their
 participation in PJM markets, the customers would not
 receive any credit for those, correct?

- A. No, not correct.
- Q. All right. There is no rider that you're aware of that would allow them to enjoy that credit, correct?
 - A. Correct.

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- Q. Now, would it be fair to say that you're not familiar with the details of the operations of the FES plants?
 - A. That's correct.
- Q. So you don't know the relative efficiency of Davis-Besse or Sammis, do you?
 - A. No, I do not.
- Q. And would it also be fair to say since you haven't read any documentation regarding the outline of the proposed transaction in this case, you don't know whether any capacity performance penalties or any capacity performance bonus payments would go to the companies or FirstEnergy Solutions, correct?
- A. I think I know, but I'm not 100 percent certain.
 - Q. So you don't know?
- A. Not 100 percent certain. I'm not
 100 percent certain of those things.
 - Q. Now, you were aware, were you not, of the capacity performance proposal when you wrote your

5137 1 testimony in this case? 2 Α. Not the current construct. It's 3 changed --4 That's not my question, sir. You were Q. 5 aware of the capacity performance proposal, correct? Which proposal? 6 7 Q. Were you aware of a capacity performance 8 proposal that PJM was considering? 9 Α. Yes. 10 And that was in existence at the time you Ο. wrote your testimony, was it not? 11 12 Α. That one was. 13 MR. KUTIK: That's all the questions I 14 have. Thank you, your Honor. 15 EXAMINER PRICE: Thank you. 16 Mr. McNamee? 17 MR. MCNAMEE: No, thank you. No 18 questions. 19 EXAMINER PRICE: Thank you. You're 2.0 excused. 2.1 Mr. Petricoff? 22 MR. PETRICOFF: At this point, your Honor, we move to introduce into evidence RESA 23 24 Exhibit 1 and RESA Exhibit 1A. 25 EXAMINER PRICE: Any objection?

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                  MR. KUTIK: Subject to motion to strike,
 2
      your Honor.
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                  EXAMINER PRICE: Subject to motion to
      strike.
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                  (EXHIBITS ADMITTED INTO EVIDENCE.)
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                  MR. KUTIK: Your Honor, we move for the
 7
      admission of Company Exhibit 81.
                  EXAMINER PRICE: Any objection?
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 9
                  That will be admitted.
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                  (EXHIBIT ADMITTED INTO EVIDENCE.)
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                  EXAMINER PRICE: With that, we will
12
      adjourn for the evening. We'll commence again at
      9:00 with Mr. Haugen and Mr. White.
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                  Thank you.
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                  (The hearing adjourned at 4:50 p.m.)
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CERTIFICATE I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Tuesday, October 6, 2015, and carefully compared with my original stenographic notes. Carol A. Kirk, RPR, RMR. (CAK - 79476)

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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 10/06/15 - Volume XXIV electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Anderson, Rosemary Foster Mrs.