## BEFORE THE PUBLIC UTILITIES COMMISION 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 : Company

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. :

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## DEPOSITION

of Donald A. Moul, taken before me, Karen Sue Gibson, a Notary Public in and for the State of Ohio, at the offices of FirstEnergy Corporation, 76 South Main Street, Akron, Ohio, on Wednesday, June 24, 2015, at 9 a.m.

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ARMSTRONG & OKEY, INC.

222 East Town Street, Second Floor
Columbus, Ohio 43215-5201
(614) 224-9481 - (800) 223-9481
FAX - (614) 224-5724

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		2
1	APPEARANCES:	
2	FirstEnergy Corp. By Ms. Carrie M. Dunn	
3	76 South Main Street Akron, Ohio 44308	
4	Calfee, Halter & Griswold LLP	
5	By Mr. James Lang The Calfee Building	
6	1405 East Sixth Street Cleveland, Ohio 44114	
7	On behalf of the Applicants.	
8		
9	Bricker & Eckler, LLP By Mr. Dane Stinson (via speakerphone) 100 South Third Street	
10	Columbus, Ohio 43215-4291	
11	On behalf of the Northeast Ohio Public Energy Council.	
12	Sierra Club Environmental Law Program	
13	By Mr. Tony Mendoza (via speakerphone) 85 Second Street, 2nd Floor	
14	San Francisco, California 94105	
15	On behalf of the Sierra Club.	
16	Ohio Partners for Affordable Energy By Ms. Colleen L. Mooney (via speakerphone)	
17	231 West Lima Street Findlay, Ohio 45846	
18	On behalf of the Ohio Partners for	
19	Affordable Energy.	
20	IGS Energy By Mr. Joseph Oliker (via speakerphone)	
21	6100 Emerald Parkway Dublin, Ohio 43016	
22		
23	On behalf of IGS Energy.	
24		

		3
1	APPEARANCES: (Continued)	
2	Vorys, Sater, Seymour & Pease, LLP By Mr. Michael J. Settineri (via speakerphone)	
3	52 East Gay Street Columbus, Ohio 43215	
4	On behalf of Retail Energy Supply	
5	Association, PJM Power Providers Group, Electric Power Supply Association.	
6	Carpenter Lipps & Leland LLP	
7 8	By Ms. Kimberly W. Bojko (via speakerphone) 280 North High Street, Suite 1300 Columbus, Ohio 43215	
9	On behalf of the Ohio Manufacturers' Association Energy Group.	
10	Environmental Law & Policy Center	
11	By Ms. Madeline Fleisher (via speakerphone) 21 West Broad Street, Suite 500	
12	Columbus, Ohio 43215	
13	On behalf of the Environmental Law & Policy Center.	
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		4
1	INDEX	
2		
3	Donald A. Moul	Page
4	Cross-Examination by Mr. Mendoza Cross-Examination by Mr. Settineri	7 54
5	Cross-Examination by Ms. Fleisher	71 78
6	Cross-Examination by Ms. Bojko Cross-Examination by Mr. Oliker Further Cross-Examination by Mr. Mendoza Further Cross-Examination by Mr. Settineri	109
7		
8	Further Cross-Examination by Ms. Fleisher Further Cross-Examination by Ms. Bojko	187
9	Further Cross-Examination by Mr. Oliker	202
10	Moul Exhibit	Identified
11	7 Unregulated Station Level Income	
12	Statements and Cash Flow Prepared February 26, 2014 (Confidential)	145
13	8 Station Income Statement and Cash Flow	1 5 0
14	Davis-Besse and Sammis (Confidential)	153
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Wednesday Morning Session, 1 2 June 24, 2015. 3 4 MR. LANG: So why don't we go on the 5 record. And good morning, all. This is the 6 telephone deposition of Don Moul this morning. 7 is Jim Lang. And, Tony, why don't you go ahead and 8 enter your appearance for the record and then ask other folks to do so. 9 10 MR. MENDOZA: Okay. Thank you, Jim. This is Tony Mendoza. I will be representing the 11 12 Sierra Club today. MR. LANG: Okay. And who are the other 13 counsel on the line for intervenors? 14 15 MR. STINSON: Dane Stinson, NOPEC. 16 MS. BOJKO: Good morning. This is Kim 17 Bojko for the Ohio Manufacturers' Association Energy 18 Group. 19 MS. MOONEY: This is Colleen Mooney for 20 the Ohio Partners for Affordable Energy. 21 MS. FLEISHER: This is Madeline Fleisher 2.2 with the Environmental Law & Policy Center. MR. SETTINERI: This is Mike Settineri 2.3 24 with the Retail Electric Supply Association and PJM

6 Power Providers Group and Electric Power Supply 1 2 Association. 3 MR. LANG: Anyone else? Sounds like it. 4 MR. MENDOZA: Did the line just go dead? 5 MR. LANG: It should be good. Can you 6 hear us? Okay. Tony, why don't you go ahead. It's 7 all yours. Maybe Tony can't hear us. Tony, Mendoza, 8 can you hear us? 9 (Discussion off the record.) 10 MR. LANG: Tony, we went through 11 appearances while you were having a line issue, and 12 it's -- you are up so if you are ready, go ahead. 13 MR. MENDOZA: All right. Good morning, Mr. Moul. 14 MR. LANG: We need to swear in the 15 16 witness. 17 (Witness sworn.) 18 MR. LANG: Go ahead, Tony. MR. MENDOZA: Okay. Thank you. 19 20 21 22 23 24

1	DONALD A. MOUL
2	being by me first duly sworn, as hereinafter
3	certified, deposes and says as follows:
4	CROSS-EXAMINATION

By Mr. Mendoza:

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- Q. Good morning, Mr. Moul. I am Tony
  Mendoza as I was saying, and I represent Sierra Club
  in this proceeding. Could you please state your full
  name for the record.
  - A. Donald A. Moul.
- Q. Okay. Thank you. And what is your business address?
  - A. 341 White Pond Drive, Akron, Ohio.
- Q. Okay. I would like to deal with two definition-type issues up front to speed things along as we go. If I refer to the Ohio Edison, Cleveland Electric Illuminating Company, and Toledo Edison Company collectively as the companies, will you understand what I mean?
  - A. Yes.
- Q. And if I refer to FirstEnergy Solutions Corp. as FES, will you understand what I mean?
  - A. Yes.
- Q. Okay. Your employer is FES, correct?

A. Yes.

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- Q. And you are appearing on behalf of the companies today, correct?
  - A. Yes.
  - Q. And you are not appearing on behalf of FES today; is that right?
    - A. Yes.
    - Q. Okay. Let's turn to page 1 of your supplemental testimony.
      - A. Okay.
    - Q. On -- on line 15 it says "Are the plants at risk of closure," and your answer to that question begins on page 1, line 16, and runs through page 3, line 8. Do you see that answer in your supplemental testimony, Mr. Moul?
      - A. Yes.
    - Q. What information did you rely on in developing the opinions offered in this answer?
    - A. I relied on P&L statements that were provided in workpapers.
- Q. And who provided you with those -- those
  P&L statements?
  - A. Jason Lisowski's team.
  - Q. I'm sorry. Just to be clear did you say

Jason Lisowski's team; is that right?

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- A. Yes. I requested them from Jason.
- Q. Okay. And what years did those P&L statements cover?
  - A. They covered 2009 through 2014.
  - Q. Okay. And when did Mr. Lisowski provide you with those P&L statements?
    - A. I don't -- pardon?

MR. LANG: I think someone needs to go on mute, please.

- A. Could you repeat the question?
- Q. I would be happy to. When did

  Mr. Lisowski provide you with those P&L statements,

  Mr. Moul?
  - A. I don't remember the exact date, but it was in the first quarter of 2014.

MR. LANG: 2015?

- A. Oh, yeah, sorry, 2015.
- Q. Okay. Thank you for the clarification.

  And I am still asking you how you formulated your
  testimony for this answer that begins in response
  to the question "Are the plants at risk of closure,"
  and I am wondering if you relied on any future
  projections of costs and revenues for the plants for

the basis of your opinions in that section of your testimony?

A. Yes.

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- Q. And -- and who provided -- and who provided you with those future projections?
  - A. Jason Lisowski.
- Q. And is this document that you are referring to different than the P&L statements that you were provided in the first quarter of 2015?
  - A. Yes.
- Q. And for what years did that -- did that document project revenues and costs for these plants?
- A. It had actuals from 2013, and then it went through some assumptions through 2018.
- Q. And you told me that Mr. Lisowski provided those to you. Do you know who prepared those projections?
  - A. Don't know.
- Q. And when were those projections provided to you?
- A. Those were provided to me in the first quarter of 2014.
  - Q. And that's 2014 or 2015 just to be clear?
  - A. No. That's 2014.

Q. Okay. Thank you. Aside from the P&L statements that were provided in the first quarter of 2015 and these projections that were provided in the first quarter of 2014, are there — is there any other information that you looked at in formulating your testimony in this section?

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MR. LANG: And when you say this section, you are still talking about pages 1 through 3?

MR. MENDOZA: Yeah. I am talking about the complete answer in response to the question "Are the plants at risk of closure" which runs from page 1 at the bottom through close to the end of page 3.

- A. So could you repeat the question again?

  I lost track of it there.
- Q. Okay. So I think we've talked about two different types of information, the P&L statements the P&L statements that were provided to you by Mr. Lisowski first quarter of 2015 and then some projections that were provided by also by Mr. Lisowski in the first quarter of 2014. And I am wondering if there is other information aside from those two types of information that you relied on in formulating your testimony in this portion of your testimony.

A. No.

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- Q. Are you relying on another witness's testimony in support of the opinions you've offered in this portion of your testimony?
  - A. No.
- Q. Have you communicated with Dr. Lawrence Makovich about the economic stability program or about this case?
  - A. Could you rephrase that question?
- Q. What was -- what did you not understand, Mr. Moul?
- A. Well, I guess the best way to put it is

  I've talked with Dr. Makovich at various industry

  events about the markets but not in detail about this

  case.
- Q. Okay. And did you talk to Dr. Makovich about the risk some of these generation units might retire -- I apologize. When I say these plants or these units, I'm adopting your definition to include the Davis-Besse plant and the Sammis plant and the FES's share of the OVEC plants so let me start the question again with that aside.

Did you talk to Dr. Makovich about the risk that some of these generation plants might

retire?

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- A. And you're qualifying that you are specifically talking about the plants in this ESP case?
  - Q. That's correct.
  - A. That answer would be no.
- Q. Okay. So let's look at page 1, lines 15 through 18. As we've discussed, the question here reads "Are the plants at risks of closure," and then if we continue on on lines 16 and 17, you state "Figures 1, 2, and 4 below compare the annual costs and revenues of Sammis, Davis-Besse, and FES's 4.85 percent interest in OVEC, for the years 2009 through 2014." Do you see that sentence, Mr. Moul?
  - A. Yes.
- Q. FES does not operate the OVEC generation plants, correct?
  - A. Yes.
- Q. Could FES decide to retire the OVEC units if it wanted to?
- 21 A. No.
- Q. Do you know how a decision to retire any
  OVEC generation units would be made?
- A. I don't know.

- Q. Is it your opinion, Mr. Moul, that the Commission's decision on the companies' economic stability program will have any impact on a decision to retire any OVEC generation unit?
  - A. I don't know.
- Q. Okay. So let's turn to page 4 of your testimony, Mr. Moul, okay?
  - A. Okay.

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- Q. And if you look at lines 5 through 18, on those lines you provide an answer to the question "Why must additional costs, above and beyond avoidable costs, be taken into consideration when considering the financial viability of the plant?"

  Do you see that question and the answer in your supplemental testimony?
  - A. Yes.
- Q. And what information are you relying on for the opinions offered in this answer?
  - A. Could you rephrase that question?
- Q. I'm wondering what information you relied or relied on when you formulated your opinions in this answer.
- A. Relied on the actual performance of the plants financially and I've relied on my knowledge of

the generation business and the capital intensive nature of running generating plants, and I've relied on my knowledge of the financial needs associated with running a business.

- Q. Are there any specific documents that you relied on?
- A. None other than what were relied on for the answers on the first through the third page.
- Q. So it would be the same documents for the answer in response to the question "Are the plants at risk of closure"; is that correct?
  - A. Yes.

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- Q. Turning -- focusing back on that answer on page 4 that begins on line 5 and goes down through line 18, are you relying on another witness's testimony in support of the opinions you have offered in this portion of your testimony?
  - A. No.
- Q. Do you have any experience with financing major capital projects?
  - A. Could you rephrase that question?
- Q. What is it about the question that wasn't clear?
  - A. I need to understand what you mean by

experience.

- Q. Have you personally worked with, you know, with a team of people for financing a project, a capital project, at a generation unit?
  - A. Yes.
  - Q. Could you give an example of a project.
- A. When I worked in the generation side of the business, for example, my time at Davis-Besse, there were capital projects that would be reviewed and prioritized and decisions made on what to go forth with and not go forth with in accordance with our budget allowances. So that's what I would call experience in working with and financing capital projects.
- Q. And would you work specifically to secure the capital to pay for those projects?
  - A. No.
- Q. So I take it on line 10 of page 4 you mention a steam generator replacement at Davis-Besse.
  - A. Yes.
- Q. Were you involved with securing finance for that procurement direct -- financing for that project?
  - A. Could you rephrase the question?

- Q. Were you -- why don't we step back a minute. Were you involved in the steam generation replacement project at Davis-Besse?
  - A. Yes.

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- Q. And what was your involvement in the project?
  - A. When the project started, I was director of engineering at -- during some portions of that project at Davis-Besse, so we supported engineering work.
  - Q. Okay. I gather you would -- would not work on raising capital to finance that project then.
    - A. That's correct.
  - Q. And I have the same question for the Sammis air quality control project on page 11, were you involved in the raising of capital to finance that project?
    - A. No.
- Q. Do you know how FES funded the steam generator replacement project at Davis-Besse?
  - A. No.
  - Q. Do you know how FES funded the air quality control project at Sammis?
- 24 A. No.

- Q. So staying on page 4, let's focus on lines 15 through 17 of that answer. Your supplemental testimony states "Plants that earn just enough revenues to cover avoidable costs, and sometimes even less than that, do not provide a business with sufficient return on investment to borrow." What would be a sufficient return on investment to allow a business to borrow?
- A. Certainly more than your overall costs.

  I would put it in the 11 to 12 percent range.
- Q. So your testimony is that a plant would have to earn around 11 -- 10 or 11 percent on return on capital to secure -- to be able to borrow money?
  - A. No.

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- Q. Let's look back at page 3, line 9 through 11. And at the -- I am looking at the question there at the bottom of this page, and it says "Some suggest that the only costs that should be considered when assessing a generation unit's financial viability are avoidable costs. Do you agree?" My question is -- looking at that question who were the "some" being referred to in this question?
- A. Well, that's the opinion that we've heard from some of the intervening parties.

- Q. Can you point to any specific intervening party?
  - A. I don't remember.
  - Q. Okay. Flipping back to page 4, lines 6 through 8, your supplemental testimony states "But the owners of the Plants must also make capital investments that keep the Plants running in order to ensure reliable operation of the Plants and return value to shareholders." Do you see where it says that?
    - A. Yes.

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- Q. Is it your opinion that capital investments that keep the plants running are not avoidable costs?
  - A. Could you repeat that question?
  - Q. What part of it --
  - A. I just want to make --
    - Q. -- is giving you trouble, Mr. Moul?
- A. I just want to make sure I followed it correctly before I answer.
- 21 MR. LANG: He asked you just to repeat it.
- Q. Sure. And, again, we are looking at that sentence that begins "But the owners" on line 6.

A. Yes.

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- Q. I want to know is it your opinion that "capital investments that keep the Plants running" are not avoidable costs?
  - A. No.
  - Q. How would you characterize those costs?
- A. Going forward capital investments are avoidable.
- Q. If FES decided to retire one of the Sammis units, it would no longer have to make capital investments to keep the Sammis unit running, correct?
  - A. Yes.
- Q. Okay. On on line staying on page 4 on lines 14 through 17, your supplemental testimony states "Further, to fund these necessary, capital intensive projects, a business needs to be able to borrow money at a reasonable cost. Plants that earn just enough revenues to cover avoidable costs, and sometimes even less than that, do not provide a business with sufficient return on investment to borrow." Do you see that language, Mr. Moul?
  - A. Yes.
- Q. In formulating this testimony did you review FirstEnergy Corporation's credit rating?

A. No.

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- Q. Did you review FES's credit rating?
- 3 A. No.
- 4 Q. Are you aware of FirstEnergy
- 5 | Corporation's credit rating?
  - A. Yes.
  - Q. Are you aware of FES's credit rating?
- 8 A. Yes.
- 9 Q. What -- well, is it your testimony that
  10 FirstEnergy Corporation could not borrow money to
- invest in these plants today?
- 12 A. No.
- Q. So just to be clear you -- you believe that FirstEnergy Corporation could borrow money to invest in these plants; is that right?
- 16 A. Yes.
- Q. Would FirstEnergy Corporation be unable to finance necessary capital investments for these plants if the economic stability program is not approved?
- A. I don't know.
- 22 Q. On line 15 you refer to "a reasonable cost."
- 24 A. Yes.

- Q. So you were talking about a reasonable cost to borrow money. Could you provide an interest rate that you consider reasonable?
- A. I would say somewhere less than 5 percent.
- Q. Okay. So let's turn to page 5, line 9 of your testimony.
  - A. Okay.

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- Q. And starting there on line 9 and going through page 6, line 4, you responded to two questions regarding PJM's capacity performance proposal. Do you see those two questions and the two answers in your supplemental testimony?
  - A. Yes.
- Q. And what information did you rely on in developing the opinions offered in these two answers?
- A. I relied on my knowledge of the PJM proposal that was in front of FERC.
  - Q. Did you read the PJM proposal?
- A. Some of it, yes.
- Q. Are there -- is there any other
  information that you are relying on in support of
  your answers to these two questions?
- 24 A. Yes.

- Q. And what is that -- what is some of that other information?
- A. Briefings from my staff responsible for performance in the capacity markets.
  - Q. Any other information?
  - A. No.

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Q. Are there -- aside from the performance proposal or perhaps a document your staff gave you, are there any other documents that -- let me strike that question.

Aside from the PJM capacity performance proposal itself, are there any other documents that you relied on in formulating your testimony in response to these two questions?

- A. The only other things might be things I have read in Megawatt Daily or trade journals.
- Q. Are you relying on another witness's testimony in support of the opinions you've offered in this portion of your testimony?
  - A. No.
- Q. Okay. So staying on page 5, looking at lines 11 through 12, you state "If anything, the uncertainty surrounding PJM's proposal increases the risks that generators face." Do you see that

- sentence, Mr. Moul?
- A. Yes.

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- Q. Just to be clear we are still talking about the capacity performance proposal, correct?
  - A. Yes.
  - Q. Are you aware that since you filed supplemental testimony in this proceeding that FERC has ruled on PJM's capacity performance proposal?
    - A. Yes.
- Q. And FERC approved PJM's proposal; is that right?
- 12 A. Yes.
- Q. There is no longer uncertainty around
  whether PJM's capacity performance proposal will be
  approved, correct?
  - A. Yes.
- Q. Is there other uncertainty with respect to the capacity performance proposal?
- 19 A. Yes.
- Q. And -- okay. What is that other uncertainty?
- A. There's uncertainty with respect to how market participants will behave and auction outcomes.
  - Q. Can you explain what you mean by

uncertainty with respect to how market participants will behave specifically focusing on the impact of the capacity performance proposal?

- A. Could you rephrase the question?
- Q. You said there is some uncertainty with respect to how I think you said market participants will behave.
  - A. Yes.

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- Q. And I am wondering what that uncertainty is. What are the questions about how market participants will behave?
- A. How they will offer their units into the auction and how they will value the risk associated with performance of the capacity performance product.
- Q. And we can either -- there was another aspect of uncertainty that you listed in response to my first question, and I didn't catch that, Mr. Moul. Could you -- you had said when I asked that there is uncertainty, you talked about the behavior of market participants and there was another aspect. Do you recall what you said?
- A. I don't recall. Could we read it back?

  MR. MENDOZA: Yeah. I think that would
  be appropriate. Karen, could you help us out?

(Record read.)

- A. My second answer encompasses that.
- Q. Okay. So option outcome, do you mean potentially the uncertainty is what the clearing price will be in the capacity market?
  - A. Yes.

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- Q. Is that all you mean by option outcome, just the price? Is there something else that is encompassed in that term option outcome?
  - A. Could you repeat that question?
- Q. Yeah. I am just trying to understand what you mean by option outcomes as being an aspect of uncertainty.
- A. So it's where the -- where the auction clears at, the clearing price.
- Q. I'm sorry. I think I have -- I have misheard your answer. You were saying auction with an A, right; is that correct? A-U-C-T-I-O-N?
  - A. Yeah.
- Q. Okay. I apologize. I misheard your answer. Okay. So let's stay on page 5. Look at lines 22 through 23 and continuing to page 6, line 1. You state "While the PJM Capacity Performance proposal may help address some of the problems with

PJM's capacity market, it is not focused on

Ohio-based solutions and it is not designed to

preserve Ohio generation." Do you see that -- do you

see that sentence, Mr. Moul?

A. Yes.

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- Q. And what are some of the problems that the capacity performance proposal may help address?
- A. It may help address consistently -- or I guess not consistently. It may help address low clearing prices in the capacity auction.
- Q. Are there any other problems that you can think of when you -- looking at that phrase "some of the problems"?
- A. Well, another one would be inability in the past to include the cost of firm fuel for combined cycle or simple cycle gas units.
- Q. Is there another problem that you can think of?
- A. Yeah. Allowance of a risk premium based on the penalties that are associated with it could help provide more revenue to good performing generators.
- Q. And can you think of another problem that capacity performance proposal may address?

A. Not right now.

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- Q. You state in those lines that we were just looking at that the proposal "is not designed to preserve Ohio generation." What is the capacity proposal designed to do in your opinion?
- A. In my opinion it's designed to ensure the performance of capacity products that clear in the marketplace when they are needed the most by potentially providing more revenue but also providing performance penalties to incent generators to perform better.
- Q. And I think you said it's intended potentially to provide more revenue. Do you believe the capacity performance will provide more revenue for generators?
  - A. I don't know.
- Q. Okay. On page 6, lines 1 through 4, there's a sentence that begins with "further" and you state that "Further, even if the Capacity Performance proposal is approved and functions as intended, significant problems remain with PJM market design and implementation, such that Ohio should not rely on the PJM market to ensure that Ohio maintains critical generation resource diversity." Do you see that

sentence, Mr. Moul?

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- A. Yes.
- Q. And what problems remain with PJM market design?
  - A. Certainly problems with price formation.
  - Q. Are there -- is there another problem?
  - A. Yes.
  - Q. And what is that?
- A. Distortions in the energy market caused by production tax credits, for example. That causes downward pressure on energy prices.
- Q. Can you think of another problem with the PJM market design?
  - A. Not at this time. Those are significant enough.
    - Q. Do you -- what do you mean by problems with "price formation"?
    - A. There's a FERC initiative and working on the price formation and energy markets so all the all the different components that make up the energy price on a daily basis and how those prices are determined.
    - Q. Could you tell us some specific problems with how -- how those energy price -- problems as you

see them are formed?

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- A. Well, problems in in markets that rely too much on uplift payments, for example.
- Q. Could you tell us what an uplift payment is.
- A. An uplift payment is a make whole payment made when a generator has run out of merit at the direction of the regional transmission organization like we saw in the polar vortex in 2014.
- Q. Have there been other times when that occurred?
  - A. Yes.
- Q. Can you give us an example of another time?
  - A. I don't remember.
  - Q. Okay. I think you also mentioned distortion in price caused by the -- distortions caused by the production tax credit, and I am wondering do you think those distortions are causing a significant impact on PJM prices?
    - A. Yes.
  - Q. And what on what information would you rely on to offer that opinion?
    - A. I would rely on statements made by Chris

Crane and Exelon and their decisions that they are making right now regarding Quad Cities and the Byron units in the western PJM.

- Q. Could you state the names of those units again, please, Mr. Moul. I didn't quite catch that.
  - A. Quad Cities and Byron.
- Q. Thank you. And so looking back at that sentence that begins on line 1 of page 6 that starts with "Further" that we have been talking about, what problems remain with PJM market implementation?
- A. Could you rephrase that question? I thought I answered it.
- Q. So -- there's a clause in the sentence that we are looking at that says "significant problems remain with PJM market design and implementation," and I was asking you first about market design. And I am wondering if there are -- and perhaps the answer is that we've covered them but are there other problems with PJM market implementation that we haven't discussed?
- A. I thought of them as joined together, so I was answering as if it was both design and implementation. I'm sorry if that was confusing.
  - Q. No, no, no. I don't think it necessarily

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was, but I just wanted to be clear. Thank you.

A. Sure.

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- Q. So we're still looking at this sentence.

  On what information are you relying for your opinion that resource diversity is "critical"?
- A. Well, there have been statements by the Public Utilities Commission of Ohio of the importance of resource diversity in the generation side of the market so that's one of the sources I would use.
- Q. And are you referring to the order in the AEP Ohio ESP case?
- A. No.
- Q. What statements from the Commission are you referring to?
  - A. I don't remember the exact citation. It was in my original testimony.
    - Q. Okay. And is there anything else that you're -- that you are relying on for your opinion that resource diversity is critical?
- 20 A. My experience with 28 years in the utility industry.
  - Q. Anything else?
- 23 A. No.
  - Q. And just to be clear, are you relying on

the testimony of another witness in this proceeding for your opinion that resource diversity is critical?

A. No.

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- Q. And still -- still looking at that sentence at the top of page 6, do you see where the phrase "functions as intended"?
  - A. Yes.
- Q. What do you mean by "functions as intended"?
- A. Well, it's intended to provide the right signals to generators to be reliable and -- and have enough revenue to invest to maintain that reliability.
- Q. How will we know if the capacity performance proposal is functioning as intended?
- A. If there are consistently high enough clearing prices to provide the needed revenue for baseload generation and, additionally, if performance of those capacity resources meets all the needs for PJM when called upon.
- Q. How long will it take for us to know if the capacity performance proposal is functioning as intended?
  - A. At least -- at least three auctions in my

opinion.

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- Q. And how many years are we talking for three auctions?
  - A. Three years.
- Q. Do you expect the capacity performance proposal will increase revenues for the Sammis units?
  - A. I don't know.
- Q. Do you expect the capacity performance proposal to increase revenues for Davis-Besse?
  - A. I don't know.
- Q. And why are you uncertain about those answers?
  - A. It goes back to my answer to the previous question. It depends upon where the auction clears at and whether that's a high enough value to offset the risk associated with nonperformance of emergency conditions.
  - Q. Do you expect that the capacity performance proposal will increase revenues for the OVEC units?
    - A. I don't know.
- Q. Is it your opinion that the capacity performance proposal will benefit FES generating -- FES's generating plants in Ohio?

A. I don't know.

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- Q. Okay. So staying I'm sorry, switching back to page 5, let's look at lines 19 through 22.

  And here the question says "In the event the capacity performance proposal is approved, does this eliminate the need for the economic stability program," and then you say "No." Do you see that question and the first part of your answer there?
  - A. Yes.
- Q. Does the approval of the capacity performance proposal have any effect on the need of the economic stability program?
  - A. Could you rephrase your question?
- Q. Could you tell me what was unclear about it?
  - A. I am just trying to follow the question. Could you rephrase it so I can understand it better?
  - Q. I am wondering if the capacity performance proposal will have any effect on the need for the economic stability program proposed by the company.
  - A. What do you mean by any effect on the need for the economic stability program by the companies?

- Q. My apologies for interrupting. The question that we were just looking at talks about "the need for the economic stability program" -- well, it further asks does the capacity performance eliminate that need, and I am wondering -- and you say "No," it does not eliminate the need, but I am wondering does it have any effect on the need -- any effect at all on the need for the economic stability program.
  - A. No.

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- Q. I'm sorry, you said "No"?
- A. I said "No." Sorry.
- Q. So in your opinion it doesn't reduce or increase the need for the economic stability program.
  - A. Correct.
- Q. Okay. Flipping back to page 6. Let's look at lines 13 through 15.
  - A. Okay.
- Q. And there's a sentence there that says

  "States must take an active role in energy security,
  and there is simply too much risk to Ohio's future

  for Ohio to relinquish its duty to maintain its

  critical fuel-diverse baseload generation." Do you
  see that sentence, Mr. Moul?

A. Yes.

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- Q. And I want to focus on the phrase "risk to Ohio's future" in that sentence. In developing your opinion about the risk to Ohio's future, what information are you relying on?
- A. I'm relying on my knowledge of generation supply and its impact on wholesale prices.
- Q. And is there anything else you are relying on?
- A. No, because it's really about fuel-diverse baseload generation.
- Q. Do you know what percentage of Ohio's generation is coal fired today?
  - A. I've seen the number, but I don't remember it offhand.
- Q. Do you know if it's more than 50 percent or less than 50 percent?
  - A. I don't remember.
  - Q. Okay. Going back to information you relied on in offering your opinion about the risk to Ohio's future, are there any documents that you relied on in offering that opinion?
    - A. No.
    - Q. What about the testimony of another

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       witness in this proceeding?
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              Α.
                   No.
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              Ο.
                   Okay. Let's turn to page 7, lines 4
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       through 5.
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              Α.
                   Is there a chance we could take a bio
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       break?
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                   MR. MENDOZA: Fine with me.
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                   THE WITNESS: I know you got a tall cup
       of coffee.
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                   MR. LANG: Let's take a -- yeah, let's go
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       off for 10 minutes, we'll come back at 5 after the
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       hour.
                   MR. OLIKER: Jim, this is Joe Oliker.
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       Can I make an appearance? I have been on for about
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       45 minutes. I didn't want to interrupt the
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       questioning.
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                   MR. LANG: Oh, sure. Good morning, Joe.
                   MR. OLIKER: Hi, Jim. On behalf of IGS
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       Energy, Joseph Oliker.
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                   MR. LANG: All right. We will go off the
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       record.
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                   (Recess taken.)
                   MR. LANG: Back on the record.
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                  (By Mr. Mendoza) Okay. Mr. Moul, let's
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              Q.
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look at page 7, lines 4 through 5 of your testimony.

A. Yes, okay.

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- Q. Does this answer generally -- this answer in your testimony is generally about PJM's reliability must-run process and looking at page 5 you refer to an RMR contract I think "stopgap measure." Do you see that?
  - A. Okay. Page 5 --

MR. LANG: I'm sorry, Tony. You said page 5. I think you meant line 5.

MR. MENDOZA: I did. Thank you, Jim.

- Q. Page 7, line 5.
- A. Okay. Yes, I refer to it as a "stopgap measure."
  - Q. And how many years can a reliability must-run contract last?
- A. It depends on how long it takes to build the transmission to compensate for that plant going away.
  - Q. Could an RMR contract last for three years, for example?
- 22 A. Yes.
  - Q. Are you -- are you familiar with any RMR contracts that have lasted for three years or more?

- A. Three years or more, I don't know.
- Q. Okay. And staying on page 7, lines 12 through 13, there's a sentence that reads "Further, an RMR contract, unlike the Economic Stability Program, cannot result in a financial benefit for the Companies' customers." Do you see that sentence, Mr. Moul?
  - A. Yes.

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- Q. And focusing on the phrase "a financial benefit," I am wondering what type of financial benefit are you referring to there.
- A. I am referring to the benefit customers receive when market prices are greater than the cost of the plants and there is a credit in their bills under the rider RRS construct.
- Q. And so under the rider RRS contract if market prices are lower than cost, those customers would receive a charge; is that right?
  - A. Yes.
- Q. And so that's also a way in which an RMR contract would differ from the economic stability program, correct?
  - A. Could you rephrase that question?
  - Q. In this sentence you say an RMR contract

is unlike the economic stability program in that the RMR contract cannot result in a financial benefit.

And my question is isn't it also true that an RMR contract cannot result in a financial charge to the companies' customers?

A. No.

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- Q. And so what type of charge would an RMR contract result in, could it result in?
- A. Customers will be charged for the transmission upgrades usually on a formula basis to compensate for that plant going away.
- Q. Do you know how those costs are allocated among customers?
- A. They are socialized among the customers that gain the benefit.
- Q. And for a generation unit located in Ohio, would some of the costs for an RMR contract be charged to out-of-state customers?
  - A. I don't know.
- Q. Could some of the charge -- costs be charged to out-of-state customers?
  - A. Yes.
- Q. And then staying on page 7 looking at lines 10 through 13, you state that "New transmission

is no substitute for generation located in close proximity to load." Do you see that --

A. Yes.

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- Q. -- phrase? Do you know where the OVEC plants are located, Mr. Moul?
  - A. Yes.
- Q. Are the OVEC plants close to the companies' load?
- 9 A. Could you define what you mean by 10 "close"?
  - Q. I'm just using the word that you used in your testimony, "close proximity."
  - A. They are not as close as Sammis and Davis-Besse.
  - Q. But would you say they are in close proximity to the companies' load as you used that word -- those words when you were drafting your testimony?
  - A. No. I was really more referring to Davis-Besse and Sammis with respect to close proximity to the companies' loads.
  - Q. Okay. When you say "close proximity," could you quantify that proximity in terms of miles for us?

A. No.

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- Q. Sammis is not located within the service territory of the companies, correct?
  - A. Yes.
- Q. So it would be possible, would it not, for a new generation unit to be located closer to the companies' load than Sammis, right?
- A. That really depends on the transmission system.
- Q. It would be possible to build a new generation unit within the companies' service territory, correct?
  - A. I don't know.
- Q. Okay. Staying on page 7 moving down to lines 14 through 15, this is the section of your testimony entitled "The necessity of the plants, in light of future reliability concerns." And that section runs through the next page, page 8 through line 19. And I want to ask you about that section of your testimony. Do you see that section of your testimony, Mr. Moul?
  - A. Yes, I do.
- Q. What information are you relying on in developing the opinions in this portion of your

supplemental testimony?

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- A. Relying on my understanding of the PJM queue and my experience in generation for 28 years.
- Q. Did you review the PJM queue as you were preparing your supplemental testimony?
  - A. Yes.
- Q. Is there anything else that you relied on in forming your opinions in this section of your testimony?
- A. Well, as I highlight in that section of the testimony, I do also reference Rod Phillips' testimony.
- Q. Okay. Are there any other -- aside from the testimony of Mr. Phillips, are you relying on the testimony of any other witnesses?
  - A. No.
- Q. Have you ever worked for PJM or another independent systems operator?
  - A. No.
- Q. Do you have any personal experience with maintaining transmission reliability?
- 22 A. Yes.
  - Q. And what is that experience?
- A. I was president at Ohio Edison and Penn

Power, and we had some subtransmission as well as a transmission crew that would do repairs from time to time.

- Q. On page 7, lines 19 through 20, you state that Sammis and Davis-Besse are capable of withstanding "extreme events." Do you see where you use the phrase "extreme events," Mr. Moul?
  - A. Yes.

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- Q. What kind of extreme events are you referring to here?
- A. Extreme events similar to the polar vortex or the cold weather events in February of '15.
- Q. Aside from the polar vortex and the cold weather events of February, 2015, are there other extreme events you had in mind?
  - A. No.
- Q. Staying on page 7 and looking down the page a little bit to lines 22 and 23. There is a sentence that reads "Natural gas plants are intermediate plants with reliability challenges associated with natural gas fuel supply." What do you mean by "intermediate plants," Mr. Moul?
- A. I mean, they typically cycle. They are not typically run baseload like a Davis-Besse.

- Q. Could you quantify what -- the capacity factor of a plant you consider intermediate versus baseload?
- A. It would vary based on market prices, so I wouldn't put a specific capacity factor out there.
- Q. And is it your opinion a natural gas plant cannot be a baseload generating unit in PJM?
  - A. No.

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- Q. So a natural gas plant can be a baseload generation unit; is that right?
  - A. Yes. It can operate as a baseload plant.
- Q. Turning to page 8, lines 9 through 10, there is a sentence that reads "Moreover, adequate natural gas generation will not be in place in the near-term." Do you see that sentence, Mr. Moul?
  - A. Yes.
  - Q. What do you mean by "near-term"?
  - A. Within the next four years.
- Q. Are you referring to any specific natural gas plants?
  - A. No.
- Q. What's the basis for your testimony that you think natural gas rates will not be in place in the next four years?

- A. My review of the PJM queue and Rod Phillips' testimony based on actual performance of what's actually built versus what's in the queue.
- Q. Okay. On lines 3 through 8, I am staying on page 8, you state in this you state that "This complex and interrelated gas delivery system ensures reliable operation only if the customer, here the natural gas plant, has contracts for 'firm' capacity on the pipeline and gas delivery systems, and locked—in commodity supply." Do you see that sentence, Mr. Moul?
  - A. Yes.

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- Q. Do you have experience negotiating natural gas supply contracts?
  - A. Yes.
  - Q. And what experience is that?
- A. We have other plants in our fleet that are natural gas-fired or dual fuel capability, and we have had to do negotiations to try to get supply to some of those plants.
- Q. And what can -- what are those plants that you are referring to?
- A. Well, we have our Springdale unit as well as our West Lorain units west of Cleveland. We have

- a lot of other simple cycle CTs, and we've had to negotiate at least under the capability of having firm gas for the new CP product.
- Q. Could you tell me where the Springdale unit is located generally speaking?
  - A. Western Pennsylvania near Pittsburgh.
- Q. Okay. And so you personally worked on -- scratch that. Strike that question.

What do you mean by "firm capacity" in the sentence?

- A. Firm transportation on the gas pipeline system as well as storage.
- Q. And what do you mean by "locked-in commodity supply"?
  - A. That's you've hedged the supply or you have an intermediary that's hedging that for you.
- Q. Does the West Lorain plant have firm capacity?
- A. No.

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- Q. Does West Lorain have a locked-in commodity supply?
- 22 A. Yes.
- Q. Does the West Lorain plant have storage, adequate storage?

Donald Moul 49 Yes. 1 Α. 2 Does the Springdale plant have firm Q. 3 capacity? THE WITNESS: We are getting into 4 5 competitive information here that I think is --6 MR. LANG: To the extent that's 7 confidential --8 THE WITNESS: Yeah. MR. LANG: -- just let me know if it is. 9 We can -- we can move on, and we can come 10 Q. 11 back to that. You said earlier that you had reviewed 12 the PJM interconnection queue; is that right, 13 Mr. Moul? Α. 14 Yes. Are you familiar with the natural gas 15 0. 16 plant proposed by a company Clean Energy Future, LLC, 17 near Lordstown, Ohio? 18 Α. Yes. Do you have an opinion on whether that 19 Ο. 20 Lordstown Ohio natural gas plant is likely to be 21 built?

You don't yet have an opinion; is that

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Q.

right?

Not yet.

- A. That's right. It's grass field right now.
  - Q. Is there -- when you say not yet, is there something that could happen that would allow you to have an opinion?
    - A. There is several steps in the process that would need to happen aside from permitting and an interconnection study.
  - Q. Okay. Aside from permitting and an -- well, strike that question.

Do you know if the proposed Lordstown is closer to the companies' load than the Sammis plant?

A. Yes.

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- Q. And what's -- is it closer to the companies' load than the Sammis plant?
  - A. Yes.
- Q. Are you familiar with the natural gas plant proposed by a company called Carroll County Energy in Carroll County, Ohio, Mr. Moul?
  - A. Yes.
- Q. And that plant is under construction; is that right?
  - A. I believe it is, yes.
  - Q. And do you have an opinion on whether the

Carroll County natural gas plant is likely to be built?

- A. I don't know how far along they are in construction so I don't know.
- Q. Do you know if Carroll County, Ohio, is closer to the companies' load than the Sammis plant?
  - A. I don't know.

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- Q. Okay. But staying on page 8, looking at lines 14 through 19, I guess I am going to read these long sentences, but it starts with "Also, Company Witness Phillips explains that whether new plants can offset the harms to reliability caused by the loss of Sammis and Davis-Besse depends on the location of the new plants and their proximity to load. Unless these plants are sited in the same proximity as" Davis -- "as Sammis and Davis-Besse, and provide a similar quality of megawatt as baseload plants with onsite fuel supply, they in no way can replace the Plants." I think I may have messed up that reading a little bit. Do you see the lines I am referring to there on 14 and 19 -- 14 through 19?
  - A. I do.
- Q. And so aside from the testimony of Mr. Phillips, what are you relying on for the

opinions offered in this portion of your testimony?

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- A. I'm relying on my knowledge of the value of an on site fuel supply, specifically 30 days or more at the Sammis plant and, you know, up to two years of fuel that's controlled at the site at Davis-Besse.
- Q. Are you relying on any other information, Mr. Moul?
- A. Just my general understanding of how the transmission system works. I'm not an expert like Mr. Phillips in transmission planning, but where a plant is on that transmission system and how the transmission system has been built to accommodate that generation and support of load matters greatly.
- Q. Did I hear you correctly, you said you are not an expert on transmission planning, Mr. Moul?
  - A. I am not as expert as Mr. Phillips.
- Q. What is your basis for the opinion that any replacement generation would have to be in the same proximity as the Sammis plant?
- A. That basis is my understanding of the transmission system and the testimony of Mr. Phillips.
  - Q. Wouldn't -- wouldn't a new generation

unit located closer to the companies' load than
Sammis provide enhanced reliability?

- A. I don't know.
- Q. Do you know if FES's West Lorain plant -MR. MENDOZA: Jim, let me know if you
  think this should go in the confidential.
- Q. West Lorain plant has had reliability problems related to natural gas supply?

  THE WITNESS: We've talked about this
- A. Yes, I do.

publicly.

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- Q. And, okay, so has the West Lorain plant had reliability problems related to natural gas supply?
  - A. Yes.
  - Q. And what are those problems?
- A. We cannot obtain a natural gas supply contract from the pipeline supplier in that area.
- Q. And I think you said this earlier, but the West Lorain plant is located close to Cleveland, right?
- A. Yes.
- Q. Has FES considered building a new natural gas plant closer to the companies' load than Sammis?

54 1 Α. No. 2 MR. MENDOZA: I think I'm done for the 3 the public section, Jim. Can you just give me a 4 minute to run through my notes? 5 MR. LANG: Sure. Yep. 6 MR. MENDOZA: Yeah, I'm done for now, and 7 I'll reserve some confidential section. 8 MR. LANG: Okay. Madeline Fleisher, do 9 you have questions for the public section? 10 MS. FLEISHER: I'm sorry, if you had 11 returned to me before. I hopped onto another line for another call. Can you maybe go to someone else 12 13 and then give me a minute? MR. LANG: Sure. 14 15 MS. FLEISHER: If that's going to work. 16 MR. LANG: Next in order of appearance this morning was Mike Settineri. 17 18 MR. SETTINERI: Good morning, Jim. Thank 19 you again. 20 21 CROSS-EXAMINATION 2.2 By Mr. Settineri: 2.3 Q. Mike Settineri, Mr. Moul, on behalf of the Retail Energy Supply Association, PJM Power 24

Providers Group, and Electric Power Supply

Association. If you can't hear me today, just let me know.

Let's just, if you can, let's start with your testimony first at page 1, line 9. And in that -- in line 9 you state the purpose of your supplemental testimony is to discuss the financial need of the Davis-Besse and Sammis plants and I paraphrased that. What do you mean by "financial need"?

- A. Well, what I mean is to address the questions that PUCO put out regarding financial need of the plants, although we feel we answered them originally, and just looking at their overall return, their profits or losses in the past, and our view of the uncertainty of the future.
- Q. All right. So financial need is intended to address one of the factors that the PUCO issued in the AEP ESP III order; is that correct?
  - A. Yes.

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Q. Thank you. Have you reviewed profit and losses by specific units for each plant? When I say you, I should correct that to say has FES reviewed profit/losses by specific units for both plants?

- A. Well, as I said earlier, I did in preparing this testimony.
  - Q. And did you do so though by specific unit for the Sammis plant?
    - A. No.
    - Q. So in the aggregate for the Sammis plant.
- 7 A. Yes.

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- Q. Thank you. Turning to Figure 1 on page 2, do you have an opinion on whether the profit/loss numbers from 2009 to 2014 show a trend?
- 11 A. No.
- 12 Q. (REDACTED AND MOVED TO THE CONFIDENTIAL PORTION.)
- 16
- Q. Do you mean those numbers are indicative of future performance?
- 19 A. I don't know.
- 20 Q. Why not?
- A. Because of uncertainties surrounding the marketplace.
- Q. So if you were to graph the profit/loss versus year, do you mean that graph would help the

companies or FES make predictions on the future profitability of the Sammis units?

- A. I don't know.
- Q. And the same question for Figure 2, do you have an opinion and do you have an opinion whether the profit/loss numbers from 2009 to 2014 for the Davis-Besse unit show a trend?
  - A. No.

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- Q. And, again, do you believe that the numbers from 2009 through 2014 for the Davis-Besse profit/losses -- can FES or -- are they helpful in predicting the future profitability of the Davis-Besse unit?
  - A. I don't know.
  - Q. And, again, why don't you know?
- A. As I said before, because of uncertainties in the marketplace.
- Q. So based on your answers, do you believe that the profit/loss numbers for the Sammis unit in Figure 1 and the profit/loss numbers for Davis-Besse Figure 2, do you believe that information is -- would be informative for the Commission in its decision in the ESP?
- 24 A. Yes.

Q. And why is that?

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- A. It provides insight into the losses these plants have incurred since 2009.
- Q. So I am trying to understand here though, and I will paraphrase, my understanding from what you told me though is these numbers provide you no insight with future profitability. So how would the Commission rely be able to rely on these past numbers if you don't believe that they are applicable to future profitability?
- MR. LANG: Objection to form but you can go ahead.
- A. They provide context in the markets in which these plants have been operating in and the financial stresses that they have so far endured.
- Q. How does that have any relevance going forward with the future profitability of these units?
- A. If their cost structure is similar and markets are similar, you could -- you could infer that the outcomes would be similar.
  - Q. And is that by year?
- A. Yes.
  - Q. So I'll circle back again. It sounds like what you are telling me is that the trend of the

- profit/loss numbers is applicable to the going forward profitability of these units.
- A. I am not making any statement with respect to trends.
  - Q. Were market conditions different in 2014 versus 2009 for the Sammis units?
    - A. Absolutely.

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- Q. Do you know what FES's aggregate 2014 P&L was?
- 10 MR. LANG: Just objection. It's beyond
  11 the scope of the testimony.
- 12 Q. You can answer if you know, Mr. Moul.
- A. I do but I don't remember those numbers at this time.
- Q. (REDACTED AND MOVED TO THE CONFIDENTIAL PORTION.)
  - A. (REDACTED AND MOVED TO CONF. PORTION.)
- 18 Q. Do you know, is that a publicly available number at this time?
- 20 A. I believe it's publicly available.
- Q. Okay. Going back to page 2, line 5, use the phrase "return on investment."
- 23 A. Yes.
- Q. So to be clear here around both the

figures that you present, Figures 1 and 2, it looks like you presented profit/loss exclusive of interest and return on investment. What do you mean by "return on investment"?

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- A. There's no return on investment associated with the profits or losses. I'm not discounting the results because of some assumed return.
- Q. So that would be either a shareholder or a member return, correct?
  - A. It's really any return.
- Q. Okay. The profit and loss for both plants, did that include the assessment of personal property taxes?

MR. LANG: Yeah. Are these --

THE WITNESS: He is getting into a lot of questions that are in the confidential section.

- A. Yeah. This is better served in the confidential section.
- Q. I would be glad to cover it with you. I think it's pretty public whether generators are subject to personal property taxes, but I would be glad to cover it there. Let me make a note of that, please.

A. Sure.

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MR. LANG: Yeah, Mike, the testimony has designated what's confidential so if you can follow that, please.

MR. SETTINERI: Sure.

- Q. Are you familiar with the Senate version of the current budget bill that's pending before the Ohio legislature?
  - A. No.
- Q. Okay. Are you aware of any pending legislation to eliminate the personal property tax that would apply to generators in Ohio?
  - A. No.
- Q. Okay. Has FES identified any capital investments at the Sammis plant -- well, this may be confidential, tell me if it is -- that will be done to lower the risk of penalties for nonperformance related to the PJM capacity performance proposal?
  - A. I would say that's confidential.
- Q. Okay. All right. Turning to page 5 of your testimony.
  - A. Okay.
- Q. Line 23.
- 24 A. Okay.

Q. You use the phrase "it is not focused on Ohio-based solutions." And this relates to the PJM capacity performance plan. Why isn't the PJM capacity performance plan focused on Ohio-based solutions?

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- A. It really focuses on maintaining reliability in a zone, not necessarily within Ohio, and it doesn't take into account if a generator in Ohio shuts down if that reliability need can be met with something outside of Ohio.
- Q. Okay. And on that point I know you occasionally use the phrase Ohio generation, that different people have used it. When we say "Ohio generation," what does that mean to you?
- A. It means with respect to plants like Sammis and Davis-Besse and part of OVEC that's located within Ohio.
- Q. Okay. So it would be generation units located within Ohio?
  - A. Within that context, yes.
- Q. Okay. What are the -- are you aware of other generating units that may serve the companies' service territory or -- generate -- let me just rephrase that, very clunky.

Are you aware of other generating plants that can be used to serve the companies' service territory that are not located in Ohio?

A. Yes.

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- Q. And what states would those generators be located?
  - A. It depends on the transmission system.

    One example would be Mansfield in Pennsylvania.
    - Q. Any others?
- A. I'm sure there are others. I just don't have a list of them.
- 12 Q. Okay. When you say "others," I mean other states.
- A. I don't know. It depends on transmission capability.
  - Q. As of today though, are generator units from out of state providing generation into the companies' service territory?
    - A. Yes.
  - Q. And your -- page 5, line 23, again, the phrase "Ohio-based solutions," what are Ohio-based solutions?
    - A. Solutions that provide economic benefit to the state of Ohio and surrounding communities.

- Q. And when you say economic benefit, and I'll just cut to the chase here, are you meaning -- are you referring to the continue -- continue to have generation assets located in Ohio?
  - A. Yes.

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- Q. Okay. Any other benefits?
- A. All of the economic benefits associated with jobs, taxes, and the reliability benefits that they provide.
- Q. And on the reliability point would you believe that if a new coal-fired generation plant was built closer to the companies' service territory, would that enhance reliability?
  - A. I don't know.
  - Q. And why don't you know?
- A. It would depend on the transmission system and where it was located.
- Q. Okay. Assuming -- assuming that you had adequate transmission, would you -- would you agree then constructing a new coal plant closer to the companies' service territory would enhance reliability?
  - A. Yes.
  - Q. Okay. Now, switch that same scenario but

now make it a new gas -- a combined cycle gas-fired generation plant was built closer to the companies' service territory. Would this enhance reliability?

A. Yes.

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- Q. Okay. Would it be just as reliable as the -- as if a -- as a new coal plant that was built in the same location, all else the same?
  - A. No.
- Q. Okay. And that's what I want to hone in on. What's the difference in reliability?
- A. There are 30 days of fuel supply on site at a coal plant, whereas, a gas plant relies on a just in time delivery system that is susceptible to interruptions.
- Q. Are there any other -- any other difference in reliability?
  - A. No.
- Q. Okay. Now, same scenario but what if that gas plant was able to run on oil as well? Would your answer be the same in terms of the difference in reliability?
- A. Could you repeat or rephrase that? I want to make sure I am answering it appropriately for what the question is.

Q. Right. You had indicated that the difference between the reliability of a new coal plant versus new gas plant, all else being the same, was the difference in the fuel supply and so what I am curious to know is if your opinion would change if that gas plant had a -- the ability to burn oil in addition to natural gas so then you would have a fuel stored on site for that gas plant.

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- A. I would say that improves the gas plant's performance, but unless you have 30 days' worth of oil on site, I would say it's not quite equal.
- Q. And let me -- let me ask this, why -- why 30 days of fuel supply for coal? Why is that important?
- A. It's long enough to withstand a significant period of severe weather events.
- Q. When's the last time that Ohio experienced a 30-day period of significant weather?
- A. Well, it's more than that. It provides the capability to deal with challenges in transportation like frozen rivers, for example. So I can't tell you when we have experienced 30 days of severe weather, but I can tell you that at times impacts the ability to deliver.

- Q. Okay. Thank you. Going to page 6 of your testimony, the top, line 1, the carryover to your prior answer, I am going to paraphrase, you state that the PJM capacity performance plan is not designed to preserve Ohio generation. Why isn't PJM's plan designed to preserve Ohio generation?
- A. It's not one of the criteria that they look at. They don't look at where the generation is located other than where it's supporting on the grid.
- Q. And you agree that's consistent across PJM, correct?
  - A. Yeah.

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- Q. Okay. Now, are you aware of the Oregon Clean Energy Center?
  - A. Yes.
- Q. And you -- are you aware -- do you know if that's under construction?
  - A. I believe it is.
  - MR. SETTINERI: Bear with me, Jim. I'm going to check my notes real quick here.
- Q. Let me ask you this question, do your current job responsibilities include advising FES senior management on whether the plants will close or retire in the future?

A. Yes.

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- Q. Okay. Have you made any type of recommendation to FES senior management as to whether either of the plants should close or retire in the future?
  - A. Could you rephrase that question?
- Q. Let me simplify it, have you made any recommendation within FES as to whether the Sammis plant should deactivate or retire in the future?
- A. Other than my testimony that says their future is uncertain, I have not made a recommendation.
- Q. Okay. And the same question but as to the Davis-Besse unit.
  - A. Same answer.
- Q. Why do you believe your job responsibilities include advising FES senior management on whether the plants will close?
- A. In my responsibility of vice president of commodity operations we have some input into costs and operation within PJM markets, so we have insight to provide.
- Q. Has any -- has anyone within FES asked you for your opinion on whether the plants will

close?

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A. No.

- Q. Okay. In regards to OVEC, who is on the OVEC board from -- representing FES?
- A. Charlie Lasky. Actually he is part of the generation group so.
- Q. Okay. But he is the representative on the FES board to the best -- I'm sorry, to the OVEC board?
  - A. Yes.
- Q. Let me ask this question, can a coal plant be considered an intermediate plant?
  - A. Yes.
- Q. There was some prior questions about

  FES's credit ratings and about borrowing if the PPA
  is rejected. Do you have -- do you know of any
  reason why FES would not be able to borrow money to
  invest in the Sammis or Davis-Besse unit if the
  proposed plan is rejected by the Commission?
- A. Could you rephrase that? I want to make sure I am answering it appropriately.
- Q. Sure. I would be glad to. Are you aware of any reason as of today why you -- that could preclude FES from borrowing funds, whether through

lenders or through equity investors, and for the Sammis unit or the Davis-Besse plant if the Commission did not approve the plan?

A. No.

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MR. SETTINERI: Okay. Jim, at this time I don't have anything else for the public version.

To be careful I am going to move everything else to the confidential section.

MR. LANG: Okay.

MR. SETTINERI: Thank you.

MR. LANG: And we are going to take a break at this time. Come back in 10 minutes so let's do it about 7 minutes after the hour.

(Recess taken.)

MR. LANG: Hello. This is Akron. Can people hear us now?

MS. FLEISHER: Yes. We were wondering.

MR. LANG: No. We had to -- we had to drop off and dial back in. Not really sure what was going on on this end. So, yes, we were talking, and we were getting no response.

So, Madeline Fleisher, do you have questions?

MS. FLEISHER: Yes, yes.

MR. LANG: Okay. Go ahead.

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## CROSS-EXAMINATION

By Ms. Fleisher:

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- Q. All right. Mr. Moul, I wanted to talk quickly about the profit and loss statements. So in your testimony you provide those for 2009 through 2014. Can you explain what the basis is for providing those years as opposed to including earlier years or providing, you know, only a few more recent years?
- A. Well, '14 is the most recent and just took it back five years before that. There was no real detailed reason to go any further or... We just chose an indicative history.
- Q. Okay. So would you say that the 2009 through 2014 years reflect a similar overall trend as if you included prior years?
  - A. No.
  - Q. Why is that?
- A. These are the most recent years.

  MS. FLEISHER: Someone go on mute there.
  - Q. Okay. So I guess maybe to rephrase my question a little better, if years prior to 2009 were

included with that, would that significantly affect the profitability of the plants?

MR. LANG: Yeah. I don't know what the answer is to that but let's save kind of profitability questions for the confidential section.

MS. FLEISHER: Sure. I am happy to save

that.

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- Q. Okay. All right. Now, moving on to the capacity performance rules now approved for PJM,

  Mr. Moul, are you familiar that those are modeled to some extent on the ISO New England pay-for-performance rules?
  - A. Yes.
- Q. And are you familiar with what the results of implementing the pay-for-performance rules in ISO New England have been?
- A. I don't remember the exact numbers. I know that they ran the auction, and it cleared at a higher value.
- Q. And does that give you any basis to predict how the capacity performance rules will affect capacity prices in PJM?
  - A. No.
  - Q. Why is that?

- A. The outcome depends on market participant behavior and their offers. Different market participants in New England than there are in PJM.
- Q. And what are the material differences that you are referring to?
  - A. Could you rephrase the question?
- Q. I guess you said that, to just paraphrase your answer, it sounds like you are saying you think market participants in PJM might behave differently than market participants in the ISO New England territory, and I was wondering why you think that.

  Any specific basis for thinking that?
- A. No. All I am saying is I don't know how the market participants in PJM will -- will react.
- Q. Okay. So in the wake of the approval of the capacity performance proposal, do you have any basis for predicting future capacity market prices in PJM?
  - A. No.

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Q. Okay. And going back, sorry, to the profit and loss statements for one minute and trying to stay out of anything confidential, in making a decision as to whether to close either Sammis or Davis-Besse, will FirstEnergy Solutions be looking at

these profit and loss statements?

A. Yes.

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- Q. And will they -- will FirstEnergy Solutions be looking at any other information in making such a decision?
  - A. Yes.
  - Q. What other information would that be?
- A. We would look at results of upcoming capacity auctions, we would look at forward prices, and we would evaluate our avoidable costs.
- Q. And is that exclusively what FirstEnergy Solutions would consider in deciding -- making a decision of the closing of Sammis or Davis-Besse?
  - A. No.
  - Q. What else might FES consider?
- A. Well, as I outline in my testimony, the past losses weigh into that decision as well.
- MS. BOJKO: I'm sorry. Could I have that answer reread. I just didn't hear it.
- 20 (Record read.)
- 21 MS. BOJKO: I'm not sure, did you say
- 22 "past"?
- THE WITNESS: Yes.
- MS. BOJKO: Thank you.

- Q. (By Ms. Fleisher) And to what extent do past losses weigh into that decision?
  - A. It's a factor that you consider.
- Q. Okay. If -- give you a hypothetical. If based on upcoming auction results, forward prices, and avoidable costs it appeared that, let's say,

  Sammis would be profitable in the future, would FES decide to close Sammis based on past losses?

MR. LANG: Objection.

- A. No.
- Q. In what context would past losses cause FES to decide to close Sammis?
- A. Reviewing past losses and then looking at avoidable capital expenditures going forward, if we were not covering our avoidable costs based on capacity markets or energy market outlooks, then the plant would be shut down.
  - Q. Okay. Over what time then?
- A. Typically those evaluations would use the forward market prices that are available, so it's about a four-year time span. And then any assumptions based on that would be outlined for the market monitor for their review.
  - Q. Okay. So you would look ahead four years

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and then how far back would you look with respect to past losses? The life of the plant or something else?

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- A. As I said, those would weigh in on your decision as far as how much you are willing to spend on the potential promise of upside. So it would probably be about five years in arrears.
- Q. Okay. And you mentioned the decision involving how much you are willing to spend on the potential promise of upside and so how would you determine what that potential is?
- A. We would evaluate it against what our future projections would be for energy markets, capacity markets.
- Q. Okay. And in particular that potential promise, is that because there is some uncertainty in those future projections?
- A. More so about how long you would incur losses before you would see greater returns.
- Q. Okay. I want to unpack that a little bit. That's assuming some particular scenario about future energy and capacity prices?
- A. We're pretty far into hypotheticals right now, so could you outline for me what hypotheticals

you would like to go down through?

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- Q. I guess I was wondering if you were considering a particular hypothetical when you said you would be considering how long you would incur losses before you see greater returns. Is that based on an assumption that over the long term energy and capacity prices would go up?
- A. I'm just answering your question in general on the process associated with deactivating a unit.
- Q. Okay. All right. And then to finish up I want to ask you quickly about your testimony regarding reliability must-run contracts on -- on page 6 of your testimony, you testified that an RMR contract does not support capital investments necessary to operate a plant effectively.
  - A. Yes.
- Q. Okay. And I was wondering whether that testimony is based on an RMR contract that reflects the deactivation avoidable cost rates under PJM's tariff?
  - A. Yes, it is.
- Q. Okay. Would the same testimony be true for an RMR contract based on a cost of service

78 1 recovery rate? Α. 2. I don't know. 3 Ο. Have you ever been involved in 4 negotiating any RMR contract? 5 I have been involved in implementing, not 6 negotiating, RMR contracts. 7 Q. Okay. That contract you were involved in 8 the implementation, were those all based on a deactivation avoidable cost rate? 9 10 Α. Yes. 11 MS. FLEISHER: Okay. That's all I have 12 for the public section. Thanks. 13 MR. LANG: Okay. Dane Stinson, do you have questions on the public section? 14 Hearing none, Kim Bojko. 15 16 MS. BOJKO: Yes, I do. Thanks. 17 MR. LANG: That wasn't you hanging up. 18 MS. BOJKO: No, it was not. MR. LANG: All right. Go ahead, Kim. 19 20 MS. BOJKO: Thank you. 21 2.2 CROSS-EXAMINATION 23 By Ms. Bojko: Q. Good afternoon, Mr. Moul. 24

A. Good afternoon. Actually it's still morning.

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- Q. Oh, close. Earlier today in response to a question you mentioned that you've relied on profit and loss statements provided by Jason Lisowski's team that were personally provided to you by Mr. Lisowski. Who is his employer?
- A. He works in the finance department, so he is FirstEnergy Service Company.
- Q. Okay. And when you referenced his team, would they also be -- is the team housed in FirstEnergy Services Corp. or is it housed within FirstEnergy Solutions or the regulated utility?

  MR. LANG: Objection.
  - A. FirstEnergy Services.
- Q. Okay. You stated in response to a question that you also obtained information regarding future projections of costs and revenues that were also provided by Mr. Lisowski. Do you remember that?
  - A. Yes.
- Q. Okay. Did you attach those projections to your testimony?
  - A. No.
  - Q. Do you know whether those projections --

well, first, let's step back. I think you said that there was a document of projections from 2013 actual costs that go through 2018 projections; is that correct?

A. Yes.

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- Q. Do you know whether that document that you are referencing was produced in discovery in this case?
  - A. I believe it was.
- Q. Do you know -- do you have a reference for me with a response or a number for the requests for production?
  - A. No.
- Q. But you believe it was provided by yourself or by another witness in the case?
  - A. I don't remember.
- Q. Okay. And you don't remember whether that document -- strike that.
- Could you turn to page 6 of your testimony, please.
  - A. Sure. Okay.
- Q. I'm not trying to repeat any questions,
  but sometimes I need to put it in context with regard
  to discussions you had earlier today. You referenced

or talked about line 4, page 6 earlier with critical generation resource diversity. Do you see that?

A. Yes.

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- Q. What do you mean when you wrote this testimony regarding resource diversity?
- A. I mean diversity in the fuel for generating assets as well as asset characteristics.
- Q. So when you talk about fuel diversity, you're talking about coal, nuclear, and renewables? Would you include renewables in that?
  - A. Yeah.
- Q. Okay. And asset characteristics, this is what you referenced earlier today with regard to baseload versus cycling plants?
- A. Yes, as well as peaking plants or intermittents like renewables.
- Q. Okay. And when you referred to Ohio in this paragraph, you do on line 1 reference to Ohio generation, you cite that that meant plants located within Ohio; is that right?
  - A. Yes.
- Q. Okay. So when you talk about Ohio in this context I think three times, line 1, line 3, and line 4, are you referring to the entire state of

Ohio, or are you talking specifically about FirstEnergy's service territory?

- A. Really more generally the state of Ohio.
- Q. And when you on page 5 in that same paragraph, line 23, you talked about Ohio-based solutions, again, you are referring to the more general state of Ohio?
  - A. Yes.

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- Q. Okay. But in response to a previous question you stated that the FirstEnergy economic stability plan was an Ohio-based solution. You believe that that's a solution for FirstEnergy service territories or Ohio as a whole?
  - A. Both.
- Q. Okay. Do the costs contributed to the economic stability program, the rider that we have discussed, if the costs of the plant exceed the revenues, that the -- do all customers in the state of Ohio pay for that or only FirstEnergy service territory?
  - A. Only customers of the companies.
- Q. Okay. And similarly if there's a credit through the rider to customers, is that credit spread out among the entire Ohio footprint, or is it just

- spread out among the customers located in the companies' service territories?
  - A. Just the companies.
- Q. Also on page 6 of your testimony, you talk about the Supreme Court taking up the appeal.

  Do you see that on line 9?
  - A. Yes.

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- Q. And you are talking about the U.S. Supreme Court; is that correct?
  - A. Yes.
- Q. Can you explain to me what was appealed in that appeal that you reference?
- A. Yeah. It was the D.C. Circuit Court's position that demand response is a wholesale product in the energy markets and, therefore -- or, sorry, is a retail product in the energy markets and, therefore, should not be paid wholesale rates as well as gain the advantage of avoiding the costs of purchasing power. Also rule -- also ruled on the jurisdiction in saying that the demand response was not in FERC's jurisdiction. It was a state's jurisdiction as a retail product.
- Q. Okay. Did you read that D.C. Circuit decision?

A. Yeah, actually I did.

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- Q. Okay. And you believe that the D.C.

  Circuit decision spoke to both -- you just mentioned energy markets in your response to me. You believe it spoke to exclusively energy markets?
  - A. That's what the decision was about, yes.
- Q. You believe the decision was about capacity markets?
- A. I believe the logic of the decision applies to capacity markets as well, and we filed at FERC along those lines.
- Q. Okay. But to your knowledge did the D.C. Circuit only discuss energy markets; is that right?
  - A. Yes.
- Q. And did you state -- did you read the appeal that was filed at the Supreme Court?
  - A. Portions of it, not all of it.
- Q. Who filed the appeal that you're referencing?
- A. It was EPSA -- oh, actually, no, the appeal was filed by FERC.
- Q. And then the appeal challenged the D.C.

  Circuit with regard to jurisdiction?
- 24 A. Yes.

So when you talk about on line 10 you Ο. think as a result, demand response's role in the energy and capacity market is likely to be resolved, you're stating that because of your opinion of what the D.C. Circuit said and the appeal that was taken; is that what that sentence is referencing?

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- You might want to read that again. MR. LANG: Yeah. Kim, it sounded like you said it is likely to be resolved instead of unlikely.
- Ο. Oh, I apologize. Is unlikely to be resolved in the near-term?
- 13 MR. LANG: Why don't you try the question 14 again.
  - Okay. My question is, and I didn't mean Ο. to read it, your position or this statement is referencing the Supreme Court appeal and you're stating that you believe that because the appeal was taken that demand responses will -- in both the energy and capacity market will be resolved sometime in the future.
  - What I'm -- what my testimony is it's unlikely to be resolved in the near-term. So there will be a resolution when the Supreme Court has a

ruling, if that's what you are asking me.

- Q. But you believe that resolution will be about the two types of markets, both the energy and capacity market.
  - A. No.

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- Q. Okay. I am asking you your sentence on line 10 that says "As a result, the demand response's role in energy and capacity markets is unlikely to be resolved in the near-term." So you're suggesting that both of those issues will be resolved in the not near-term but sometime by the Supreme Court; is that your testimony?
- A. My testimony is the Supreme Court will make a decision with respect to the EPSA case, and if that decision is that demand response is outside FERC's jurisdiction, then our complaint at FERC regarding capacity market applicability for demand response will have to be decided as well and that that will take time.
- Q. Okay. So as a result, you -- you don't mean to imply that merely the Supreme Court ruling would decide these issues. The Supreme Court ruling would have to be decided plus FirstEnergy's appeal -- or complaint against FERC would also have to be

- decided; is that what you are saying?
- A. Yes.

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- Q. Okay. And who filed the complaint at the FERC that you are referencing? You said "we." Who is we?
  - A. FirstEnergy.
  - Q. FirstEnergy, which FirstEnergy entity filed the complaint?
    - A. I don't remember.
- 10 Q. You don't believe it was FirstEnergy
  11 Solutions?
- 12 A. I don't remember.
- Q. Could you move to line 13, you use the word "energy security." What does energy security mean?
  - A. In this context it means reliable energy services and diverse fuel supply to ensure that reliability.
    - Q. And in that context diverse fuel supply means the same as you told me before with regard to resource diversity that it could be coal, nuclear, renewable; is that correct?
  - A. Yes.
- Q. And who is responsible in -- for

reliability in the region where Ohio is located?

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- A. Could you rephrase that question?
- Q. Sure. Which entity has the responsibility to ensure reliability for the region in which Ohio is located?
- A. Well, there's PJM. There's -- they have the overall reliability responsibility for the RTO in which Ohio is located but there are also reliability considerations for all the operating companies.
- Q. Operating companies meaning generating plants or operating companies meaning the regulated utilities?
  - A. Regulated utilities.
- Q. And in that context of the regulated utilities, you are speaking that they have overall reliability concerns for the delivery of the distribution system; is that -- and transmission system? What are you referencing?
- A. Yeah, I am really talking about getting the electricity to the customers, the end-use customers.
- Q. The delivery you believe to be regulated utilities are responsible for delivery of the generation to the customer.

A. Yes.

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- Q. And on line 14 you talk about "too much risk to Ohio's future." With regard to what? What are you referencing in that context?
- A. What I am referencing is the potential to be too reliant on one fuel source and have volatile energy prices that might impact the economy of Ohio.
- Q. When you state "too reliant on one fuel source," would that be true to be completely reliant on coal?
  - A. No.
- Q. So you think it's okay to be completely reliant on coal as a fuel source; is that right?
  - A. No.
- Q. Let me rephrase. Do you believe there is any risk to Ohio's future if Ohio relies purely on coal plants?
  - MR. LANG: Objection.
  - A. Could you rephrase the question?
- Q. Well, you said that too much risk to Ohio's future means a potential to be too reliant on one fuel source. I was asking if that includes being too reliant on coal as a sole fuel source. I thought you said no, that they could be -- they could be

reliant on one fuel source if it was coal. Is that not what you said?

- A. No, that's not what I said.
- Q. Okay. I apologize. I misunderstood. So you believe that there is still the same amount of risk to Ohio's future if Ohio is reliant on coal as the sole fuel --
  - A. No.
  - Q. -- resource?
  - A. No.

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- Q. Okay. So it is okay for Ohio to rely on coal as the sole resource.
  - A. No.
  - Q. Okay. What do you -- what are you distinguishing in my question? You believe there is risk associated with relying on one fuel source even if that fuel source is coal; is that right?
  - A. There is risk relying on any one fuel source period.
  - Q. Okay. And then in that -- the remaining part of that sentence you say "for Ohio to relinquish its duty." What Ohio duty are you referencing there? What duty?
- A. Right now, markets provide signals to

generators to make decisions to run or shut down assets. The state of Ohio has no say in that. This proposal gives them an opportunity to provide certainty for these plants that provide resource diversity and value to the economy in Ohio.

- Q. Okay. So currently you believe Ohio has no say in whether generation resources are shut down; is that right?
  - A. Yes.

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- Q. And do you believe that FirstEnergy's proposal in this case gives Ohio the right to preclude the plants from shutting down?
  - A. Could you rephrase your question?
- Q. Does FirstEnergy's filing with the Commission include the right for Ohio to prohibit or preclude the generating plants from shutting down?
  - A. No.
- Q. And you say Ohio -- on line 15 "Ohio needs to control the future of its system reliability." Are you referring to -- what are you referring to with regard to system reliability in that context?
- A. I'm referring to the overall reliability of its transmission and delivery system.

- Q. Okay. Do you believe that economic stability program affects the overall reliability of the transmission and distribution system?
  - A. Yes.

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- Q. And how do you believe that occurs with the financial hedge that's provided in the economic stability program?
- A. It provides certainty for these plants, greater degree of certainty that they won't be shut down for 15 years and in return --
  - Q. Okay. Sorry.

MR. LANG: Go ahead and finish.

- A. And in turn it prevents having to build transmission to compensate should the plants be shut down that cost that gets spread across Ohio customers.
- Q. Okay. Does Ohio -- does the Public
  Utilities Commission of Ohio or the state of Ohio
  control the transmission costs from building new
  transmissions of how that will be distributed or
  spread among Ohio customers?
  - A. No.
- Q. Earlier I thought you told me that the generating plants that's at issue in this case were

not part of the transmission and delivery system; is that correct?

A. No.

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- Q. You believe that the generating units are part of the regulated utilities' transmission and delivery systems?
  - A. No.
- Q. Okay. So when you talk about the overall reliability of its transmission and distribution system, you now are not talking about the regulated utilities?
  - A. No.
- Q. Okay. I thought before when you talked about Ohio needs to control the future of its system reliability, that that was referencing the operating companies which we defined as regulated utilities delivering transmission; is that not accurate?

MR. LANG: Objection.

- A. It's more encompassing than that. It also includes the generation within the state of Ohio. You can't have energy delivery without generation.
- Q. You can't have energy delivery to a state without generation in the state?

MR. LANG: Objection.

- A. I didn't say in the state. I said you can't have energy delivery without generation.
- Q. Okay. Does the generation have to be in the state?
  - A. No.

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- Q. Okay. So when we are talking about
  Ohio's system reliability, you were including Ohio
  generation, or you are not including Ohio generation
  in that?
  - A. I'm including Ohio generation.
- Q. Okay. But I thought you explained that Ohio generation is not included in the transmission and delivery systems of the regulated utilities.

MR. LANG: Objection.

- A. Could you ask it in a question? I don't know how to answer that.
  - Q. Sure. When you talk about Ohio's system reliability, does it include Ohio generation?
    - A. Yes.
  - Q. Can a state have transmission and delivery systems without having in state generation?
    - A. I don't know.
    - Q. Okay. So you don't believe that

generation can cross state lines and be delivered into another state.

- A. Could you rephrase that question?
- Q. Sure. Can a generator located in a neighboring state supply generation to the neighboring state?
- A. It depends on the transmission system and how far away from that state it is.
- Q. Okay. I believe you said earlier today that Ohio could receive generation from generators in Pennsylvania; is that correct?
  - A. Yes.

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- Q. Okay.
- A. That plant is within 10 miles of the Ohio border and connected by a transmission system in the ATSI zone in PJM, by the way.
- Q. So you are saying without those specific characteristics that Pennsylvania generators could not generate electricity that would end up in Ohio?
- A. No. I'm saying it depends -- it depends how effectively they could provide energy to Ohio.
- Q. And does Ohio control the dispatch -does the PUCO or Ohio state regulators or the General
  Assembly control the dispatch of generating units?

96 1 Could you break that question down, Α. 2 please? 3 0. Does the Commission control the dispatch 4 of generating units? 5 Α. No. 6 Ο. Does the state legislature -- legislature 7 in Ohio control the dispatch of generating units? 8 Α. No. Who controls the dispatch of generating 9 Ο. 10 units? 11 The generation owners offering them into Α. 12 PJM's market. And who decides whether those offers are 13 Ο. accepted and who -- leave it at that. 14 Could you say that again? 15 Α. 16 Who decides whether those generators' Ο. 17 offers are accepted when they offer them into the PJM 18 auction? Are we talking about the auction or the 19 Α. 20 daily -- daily clearing of the market? 21 We'll do them both. The auction. Ο. 2.2 Α. PJM. And the daily clearing of the market. 23 Q. 24 Α. PJM.

- Q. If an offer is not accepted, would that unit run for that day?
  - A. I don't know.

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- Q. When you referred to stability on line 18, look at line 17 and 18, you said "needed certainty and stability for these generating resources," what certainly and stability are you referencing?
  - A. Financial.
- Q. Earlier in response to some questions, one to mine, I guess, earlier you talked about the transmission costs, transmission would need to be built for access to new generating plants. Do you recall that?
  - A. Yes.
- Q. And I think we talked about transmission costs being spread over a group of customers; is that right?
  - A. Yes.
- Q. Would those costs be spread out over all Ohio customers or just the customers in FirstEnergy's service territory?
- A. Could you clarify which costs you're talking about?

- Q. Sure. I think you said that if a -- if a new plant was constructed close in proximity to where Sammis or Davis -- Davis-Besse currently operate, that it would depend on transmission costs that would need to be paid for by other customers. Do you recall that discussion?
  - A. That's not what I said.
- Q. Okay. I'm sorry. I am just trying to shorten this up. Let's go by it one by one. You believe that new generating plants can be built in Ohio to serve Ohio customers.
  - A. Yes.

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- Q. And do you believe that generating plants can be built outside of customer -- outside of Ohio that could serve Ohio customers?
  - A. Yes.
- Q. And if transmission facilities need to be constructed to support the delivery of those generating units, who pays for those transmission costs?
  - A. The generator.
- Q. Okay. And do you believe that those costs would be then passed on to customers?
- 24 A. No.

- Q. And on lines 11 and 12 when you talk about "New transmission is no substitute for generation located in close proximity to load," you are not talking about in that situation new generation being built in or around the existing unit plants that are in the application.
  - A. Could you rephrase that? I am having trouble following the question.
  - Q. I'm sorry. Do you believe that new generation built close to load in Ohio is a substitute for the Sammis and Davis-Besse plants?
    - A. I don't know.
    - Q. It could be though, right?
- A. Yes.

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- Q. And when you talk about the financial benefit of the companies' customers on line 13, when do you believe that that financial benefit may occur?

  MR. LANG: She's on page 7.
  - A. Where are you at?
  - Q. Line 13, page 7.
- A. Sorry. I was on page 6 still. So could you ask me the question again?
- Q. You reference a financial benefit to the companies' customers that can result from the

economic stability program, and I am asking when do you believe that that financial benefit may occur?

- A. Based on the projections provided by Jason Lisowski through Judah Rose, it's somewhere after 2020.
- Q. And would you agree with me before 2020 it is a financial detriment to the companies' customers?
  - A. No.

- Q. You don't believe that there will be a cost passed onto the companies' customers pursuant to the economic stability program?
- A. Could you rephrase that so I can answer it appropriately?
- Q. Do you believe that the economic stability program will pass on a charge to customers, the companies' customers, through a rider prior to 2020?
  - A. Yes.
- Q. You would agree with me that the output
  of David -- Davis-Besse and Sammis does not
  necessarily go directly to Ohio load; is that
  correct?
- A. I don't know.

- Q. On line 20 of page 7, you reference
  "extreme events." Do you see that?

  A. Yes.
  - Q. And I believe in response to a question you believe that one example of an extreme event was the polar vortex of 2013; is that right?
    - A. No. 2014.
  - Q. I apologize. That's right. January, 2014; is that correct?
- 10 A. Yes.

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- 11 Q. January, February?
- 12 A. Yes, January of 2014.
- Q. And did you recall any other events?
- 14 A. Yes.
- Q. You recalled that there were other

  extreme events. You just couldn't recall the dates

  of those events; is that right?
- 18 A. No.
- Q. What are the dates of other extreme events that you are referencing on line 20?
- 21 A. February of 2015.
- Q. Any other ones?
- 23 A. No.
- Q. Do you know during the first polar vortex

- you mentioned on January, 2014, whether Davis-Besse was running?
  - A. Yes.
  - Q. And was it running?
- 5 A. Yes.

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- 6 Q. During the entire polar vortex?
- 7 A. Yes.
  - Q. Davis-Besse did not have any maintenance outages?
    - A. Not in January of 2014.
- Q. On line 16 on that same page, page 7, you state "Will new plants in the PJM queue provide the same reliability benefits." Do you see that?
  - A. Yes.
- Q. Which specific plants are you referencing in this question?
- MR. LANG: Just to be clear it's a question. He's not referencing. He is responding to a question.
- Q. Right. Which new plants in the PJM queue is this question referring to?
- A. Well, it's looking at the PJM queue in general, but when you look at it, it's -- the majority of them are gas plants coming into the

marketplace as stated in lines 21 and 22.

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- Q. Okay. Do you know of the specific plants
  that you are referencing either in the question or
  lines 21, 22?
  - A. It's more in general.
  - Q. Do you know how many you are referencing in these sections?
    - A. I don't remember.
  - Q. And if you go to the next page, 8, on line 13, you say "Most planned assets appearing in the PJM queue." Do you know which assets you are referencing in this sentence?
  - A. I am referencing Company Witness
    Phillips' testimony in which he provides that
    insight.
  - Q. Does -- does he list planned assets that you are referencing?
    - A. I don't believe that he lists specific assets. I think it goes basically into percentages.
      - Q. Of types of assets?
    - A. I don't remember.
- Q. So when you wrote this sentence, you do
  not know the specific planned assets that
  Mr. Phillips was referencing; is that correct?

A. No.

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- Q. Okay. What are the planned assets in the PJM queue you are saying will never go into service?
  - A. It's based on historical performance.
- Q. Okay. And what are those assets you believe will never go into service?
- A. There is a small percentage of assets that actually go into service versus the total number in the PJM queue. It's an aggregation that's not on a unit-specific basis that that -- that assertion is made.
- Q. Okay. So my question was you're not identifying any particular -- any specific planned asset in that sentence; is that right?

MR. LANG: Other than the planned assets in the PJM queue, that's true. You have asked him several questions very confusingly. Let's move on.

MS. BOJKO: Well, I need to have the witness testify, not Mr. Lang.

MR. LANG: The objection is asked and answered. You can move on. Try to answer questions that are clear and mean something, please.

MS. BOJKO: The witness can ask for clarification if he needs to. I want to know if he

has -- has he --

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MR. LANG: As he has several times. The objection is asked and answered. Please move on. I am instructing him not to answer. Ask your next question. Go ahead.

- Q. (By Ms. Bojko) Mr. Moul, did you draft your testimony?
  - A. Yes.
- Q. And you stated when you drafted your testimony, you reviewed the PJM queue; is that correct?
  - A. Yes.
- Q. But in your testimony you are speaking generally about the planned plants in the queue, you are not identifying specific plants; is that correct?
  - A. Yes.
- Q. And the basis for your statement starting on line 13 is from Mr. Phillips; is that correct?
  - A. Yes.
- Q. Can you turn to your first workpaper. I don't see a number on it. I am going to ask the question first. Do you believe that workpaper only the highlighted portions are deemed confidential; is that the indication that I am supposed to be

obtaining from this document?

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- A. Why don't we save this for the confidential section so we don't bridge into any of that.
- Q. I was just merely asking about the title, but if you believe that's confidential, we can save it.
- A. Well, it's listed as "competitively sensitive confidential" at the top of each page.
- Q. That's why I was asking the question. You believe the whole document is confidential, not just the highlighted portion; is that right?
  - A. Yeah, that's what I believe.
- Q. Okay. Mr. Moul, you were talking about the differentials and reliability of gas versus coal plants. Do you recall that?
  - A. Yes.
- Q. And you were talking about a just in time fuel source for natural gas plants versus a 30-day coal supply fuel source for coal plants; is that right?
- A. Yes.
- Q. Do you believe that natural gas can be stored?

A. Yes.

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- Q. And do you believe that natural gas generating plants can have firm contracts for fuel supply?
  - A. Yes.
- Q. Isn't it true that reliability can be affected by maintenance outages?
  - A. Could you rephrase that question?
- Q. Sure. Can a reliability of a generating plant be affected by an outage of that generating plant?
  - A. Yes.
- Q. You talked briefly about market participants in PJM versus ISO New England markets. Do you recall that?
  - A. Yes.
- Q. And you stated you weren't sure how the PJM market participants would react to the new PJM performance -- capacity performance model; is that correct?
- A. Yes.
- Q. Do you have any reason to believe that the market participants in PJM will react somehow differently than the market participants in ISO New

England?

A. I really don't know.

 $$\operatorname{MS.}$$  BOJKO: One moment. I believe I'm done with the public version.

- Q. I might have misheard a response to one of the questions asked before. Could you turn to page 4. I want to make sure I have your percentages. On page 4, line 17, you talked about "sufficient return on investment." What do you believe that the percentage would be to be a sufficient return on investment?
- A. I said I would like it between 11 and 12 percent.
  - Q. 11 and 12, thank you.
- 15 A. Okay.

MS. BOJKO: That's all I have for the nonconfidential portion. Thank you, sir.

MR. LANG: Okay. We are going to take a lunch break at this time. Let's come back at -- yeah, let's come back at 1 o'clock. And I think Joe Oliker will be the next person up.

22 (Thereupon, at 12:15 p.m., a lunch recess was taken.)

109 Wednesday Afternoon Session, 1 2 June 24, 2015. 3 4 MR. LANG: Let's go on the record. 5 Okay. Go ahead, Mr. Oliker. 6 7 DONALD A. MOUL 8 being by me previously duly sworn, as hereinafter certified, deposes and says further as follows: 9 CROSS-EXAMINATION 10 By Mr. Oliker: 11 Mr. Moul, my name is Joe Oliker, and I am 12 Q. with IGS Energy. Just a few questions for you today. 13 14 First, I want to follow up on something you said to Mr. Settineri. I believe you indicated a 15 30-day supply of fuel is necessary in the event, for 16 example, rivers freeze. Do you remember that? 17 18 Α. Yeah, I really indicated that it was -you know, margin provides great, great flexibility 19 really but go ahead. 20 Would you agree that natural gas is not 21 moved by river barge along rivers? 22 I don't know. 23 Α.

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Q.

And that's fine. If you don't know the

answer to a question, always feel free to give that response.

Shifting gears a little bit, Mr. Moul, a large part of your testimony is about potential retirements of Davis-Besse, Sammis, and OVEC plants. Have you been involved in any decisions regarding other retirements of FirstEnergy Solutions' power plants?

- A. Yes.
- Q. Are you familiar with the power plants that FirstEnergy Solutions retired in April of 2015?
- A. Yes.

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- Q. And that would be the Lake Shore,

  Ashtabula, and Eastlake plants?
- 15 A. Yes.
- Q. Would you agree that Ashtabula is a 244-megawatt plant?
- A. I don't remember.
- 19 Q. Somewhere in that range?
- A. I really don't remember the exact number.
- 21 It's close to that range.
- Q. Would you agree Eastlake is somewhere in the range of 425 megawatts?
- A. I don't remember the specific output of

- the units. They are all subcritical units.
- Q. Okay. And that's fine. Would you agree the decision to close those plants was made in 2012?
  - A. Yes.
  - Q. Were you involved in the decision to close those plants?
  - A. No.

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- Q. What was your title at the time?
- A. Pardon me?
- Q. In 2012 when the decision was made to close those plants, what was your title?
  - A. President of Ohio Edison and Penn Power.
- Q. Okay. Do you know who was involved in the decision to close those plants?
- 15 A. No.
- Q. Do you know what metrics were considered in making the determination to close Eastlake, Lake Shore, and Ashtabula?
- 19 A. No.
- 20 Q. Did you ask --
- 21 A. Did I ask what?
- Q. Did you ask anybody in FirstEnergy or FirstEnergy Solutions what metrics they have considered in the past in closing a power plant?

A. No.

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- Q. Have you been involved in the decision to close power plants in the past?
  - A. Yes.
  - Q. Which power plants?

THE WITNESS: So this is kind of outside of this proposal that's in front of us right now. Is it okay for me to answer this?

Q. Yes.

MR. LANG: Yeah. Joe, can I ask where you are going with this?

MR. OLIKER: It's -- it's background on his current testimony. Goes to his credibility, goes to a lot of different things as well as his testimony.

MR. LANG: Are you -- can you ask him about -- because I think you want to ask him about as you had asked earlier the metrics that went into the decision. Is there a way to ask about it without identifying specific plants?

MR. OLIKER: I don't know. If we get close to something that might be confidential, he can -- he can kick that to the later discussion, but I don't think identifying what plants he's considered

would cross that line.

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MR. LANG: Yeah. And I think the -- I guess my concern is both the confidentiality issue and beyond the scope issue; but, you know, we can work through it question by question. But so let's -- what's your -- what's your pending question?

MR. OLIKER: Which plants has he been

involved in the evaluation of their either retirement or continued operation.

MR. LANG: Let's hold that for confidential and address it at that time.

MR. OLIKER: Okay.

- Q. (By Mr. Oliker) More broadly then in the public section, when was the last time you were involved in the evaluation of the continued operation of a power plant besides the plants that are at issue in this proceeding?
  - A. It was in the 2013-14 timeframe.
- Q. Did that involve a regulated or unregulated utility?
  - A. Unregulated.
- Q. Can you identify the metrics that you considered in that evaluation?
- A. Yes.

Q. Please do so.

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- A. It was going forward capital costs, it was our avoidable costs, and we looked at those versus energy forwards and expectations for capacity. We also looked at the overall performance in recent years of those plants in the marketplace.
- Q. And what individuals was the unregulated entity you are speaking of? FirstEnergy Solutions?
- A. I kind of missed part of that question. Could you say that again?
- Q. You mentioned that you performed an evaluation for an unregulated entity. Was that unregulated entity FirstEnergy Solutions Corporation?
- A. Yes. And I was involved in the evaluation. I was not the one necessarily performing the evaluation.
  - Q. And who was performing the evaluation?
  - A. My staff.
- Q. And the ultimate decision whether to continue to operate a unit, is it done by a committee?
- A. No.
- Q. Is it done by an individual?
- 24 A. Yes.

- O. Who is that individual?
- A. We believe that recommendation to my boss, Donny Schneider, president of FirstEnergy Solutions.
  - Q. And just so I'm clear, Don Schneider makes all ultimate determinations whether to continue to operate or close a generating station?
    - A. I don't know.
  - Q. Having -- I'm sorry. I am having trouble reconciling your two answers. If -- is there somebody else that advises or provides input to Mr. Schneider regarding whether to continue to operate a generating unit?
    - A. Yes.

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- O. Who is that?
- A. There's input from our business development group that's -- and also some input from generation.
- Q. Okay. And maybe I misstated my question.

  Does -- is there anyone that can veto or -- is there
  anyone that can veto Mr. Schneider's decision with
  respect to operating a generating unit or closing it?
  - A. I don't know.
  - Q. So is it your testimony that you do not

- know who ultimately decides whether or not

  FirstEnergy Solutions will continue to operate or
  retire a generating unit?
- A. It's my testimony that I provide a recommendation as well as others to my boss Donny Schneider, and I am not involved in the decision making beyond that, so I don't know how the remaining decision would be made.
- Q. Okay. Going back to the metrics that would be considered, would you agree that FES would consider closure costs?
- MR. LANG: Can what? We missed the last two words.
- Q. Closure costs.

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- MR. LANG: Closure costs.
- A. Could you -- can you define what you mean by "closure costs"?
  - Q. Let's use an example. Would you agree that a nuclear power plant has decommissioning costs?
    - A. Yes.
  - Q. Would you agree that in deciding to continue to operate, sell, or close Davis-Besse, FirstEnergy Solutions would consider the decommissioning costs associated with that unit?

A. Yes.

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- Q. Might be getting ahead of us but would you agree that decommissioning costs are also known as accretion expense?
  - A. Don't know.
- Q. Okay. Let's take it more basically. Would you agree that decommissioning costs are recorded as an expense in each year, in other words, they don't all come due at once?
- A. The decommissioning expenses are funded by the Nuclear Decommissioning Trust.
- Q. And does FirstEnergy Solutions pay into that trust each year?
  - A. I don't know.
  - Q. Do you know if those costs show up on the profit and loss statement of any unregulated utility that owns a nuclear power plant?
    - A. I don't know.
  - Q. Okay. Taking a step back, would you agree that the coal-fired power plant may have environmental closure costs?
    - A. Yes.
- Q. And would you agree that FirstEnergy
  Solutions would consider those environmental closure

costs in deciding to sell, continue to operate, or close Sammis?

A. Yes.

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- Q. I'm sorry to take this out of order too, when -- if you know, did FirstEnergy Solutions intend to sell Eastlake, Lake Shore, or Ashtabula?
  - A. I don't know.
- Q. I recognize that the specifics of the next questions I am going to ask are confidential, but I would like to get as much as I can into the public record. We've talked about profit and loss statements. Could you identify what costs of a profit and loss statement competitive bidders —
- A. Could you -- could you repeat that? I missed the last part.
- Q. One moment. From a higher level can you identify what is a profit and loss statement?
- A. A profit and loss statement tallies up results for revenues as well as costs and --
- Q. Which costs -- I'm sorry. Keep going. I didn't mean to interrupt you.
  - A. No, that's okay. What's your question?
- Q. You said it tallies up revenues related to costs, and then you were saying something else.

- A. Well, you asked me what it includes in costs, right?
  - Q. Sure, yes.

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- A. You know, I have some examples in my workpapers. And as you go down the cost line, there's fuel, there's labor, dues fees and licenses, license and rental costs, general business and travel, materials and equipment, professional and contractor, uncollectible expenses, other deductions, construction overhead, state-reimbursed programs, pension and OPEB, sale leaseback expense, service company expense, property taxes, insurance and general taxes, depreciation and appreciation expense for total costs.
- Q. Okay. Would you generally refer to those costs as fuel and operations maintenance?
  - A. No.
    - Q. Why did you disagree with that?
    - A. I just call them costs.
- Q. Does your profit and loss statements listing of costs include additional things besides operation and maintenance expense?
  - A. Could you rephrase your question?
  - Q. What part of my question don't you

understand?

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- A. What do you define as operation and maintenance?
  - Q. The costs of operating any unit.
- A. I'm not exactly sure what you are asking me to parse out of a profit and loss statement on the cost side.
- Q. Okay. Let's take it from a different angle. Your profit and loss statement does not include any interest expense, equity return, or income tax, correct?
  - A. Yes.
- Q. And I want to make sure my next question is not confidential before I say it. Just give me one moment, please.
- Okay. When you indicated earlier that you reviewed profit and loss statements provided by Witness Lisowski, are you referring specifically to the profit and loss statements that Mr. Lisowski has attached to his testimony?
- A. It depends which one you're talking about. I believe yes.
- Q. Okay. Let me -- maybe you will understand it this way, would you agree that all of

the projections that Mr. Lisowski has included in his testimony are based upon a forecast of future commodity prices provided by Witness Judah Rose?

A. Yes.

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- Q. Okay. Have you -- for purposes of your testimony have you reviewed any of the projected profit and loss statements that are based upon FirstEnergy Solutions' internal forecast of future commodity prices?
  - A. No.
- Q. Will you make a recommendation to

  Mr. Schneider to continue to operate Davis-Besse and

  Sammis based upon Mr. Rose's forecast of future

  commodity prices for FirstEnergy Solutions?
  - A. You're speaking hypothetically?
- Q. Hypothetically or in reality if asked to do so.
- A. It would be based on FirstEnergy Solutions' projections.
- Q. And have you reviewed FirstEnergy

  Solutions' projections of future commodity prices?

  Sorry if I already asked that question.
  - A. No.
    - Q. Okay. In your testimony you talk about

- avoidable costs. Do you have a definition of avoidable costs, please?
  - A. I provide a simple definition of the costs that would not be incurred should a generation unit be shut down or mothballed.
  - Q. And if we go back to your profit and loss statement, which of the costs that are on the profit and loss statement are avoidable costs?
  - A. I would have to review the allowances in the PJM tariff to give a good answer about that.
  - Q. Would you agree that depreciation is not an avoidable cost?
    - A. Yes.

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- Q. What about accretion expense?
- A. I would agree that's not an avoidable cost.
- Q. You -- you provide a third backcast of the profit and loss of Davis-Besse and Sammis for 2009 to 2014.
- MR. LANG: Objection.
- 21 MR. OLIKER: And I'm sorry, Jim. I am
  22 just setting this up.
- MR. LANG: You are still going.
- Q. In 2009 was FES projecting to lose money

over the next five years for Sammis, Davis-Besse, and
OVEC?

- A. I don't know.
- Q. In 2010 do you know whether FES was projecting to lose money for those same plants for 2014?
  - A. I don't know.
    - O. What about in 2011?
    - A. Don't know.
- 10 Q. And the same question for 2012.
- A. Don't know.
- 12 0. 2013?

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- A. Don't remember.
- Q. Going into 2014 did FES believe it would lose money with those plants?
- MR. LANG: Objection.
- A. I don't remember.
- Q. Now, in your testimony you seem to talk
  about two options that FES has, they can either close
  or continue to operate Davis-Besse and Sammis. Would
  you agree that FES could also sell the plants?
- 22 A. Yes.
- Q. And don't know if this is confidential or not but has FES attempted to sell the plants?

THE WITNESS: Why don't we save that for confidential.

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MR. LANG: That would be confidential, yeah. I don't know what the answer is but let's keep that on the confidential side.

- Q. Okay. I will make a note in my. Your testimony focuses on historical performance of Sammis and Davis-Besse and also notes that you have concern over the next three or four years. Is FES's concern about future markets only a near-term issue, say the next three to four years, or is it a longer concern?
  - A. It's a longer concern.
- Q. Let me ask a hypothetical. Assume that capacity performance proposal --
- THE NOTARY: I'm having trouble hearing you.
- Q. Assume that in August PJM holds transition auctions for the capacity performance proposal and the price comes in at a level that would allow FirstEnergy Solutions to believe that it will make money on its plants over the next three years. Would FirstEnergy Solutions still feel the need for the RRS?

MR. LANG: Objection.

A. Yes.

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- Q. And can you explain why?
- A. It would provide certainty for the plants in that longer-term view and it would still provide value to the companies' customers and the reliability benefits would be more certain as well.
- Q. Just so I can try to synthesize that down, it's your opinion that 10 to 11 percent return that is guaranteed is better than a 15 to 20 percent return that is not certain?

MR. LANG: Objection.

- A. There's -- there's too many hypotheticals in there, a 10 to 20 percent return. You are making an assumption on some clearing prices that I have no guarantee of or certainty of.
- Q. Okay. We'll have to talk a little bit more about the capacity performance proposal. I'll try not to be repetitive. What is your understanding of how the capacity performance proposal modifies the generation units' performance obligations?
- A. That's a rather encompassing question but I will try to make it succinct. There are greater penalties during emergency hours as declared by PJM and, therefore, greater risk to generators if they

don't perform during those emergency hours. As such, they are allowing the addition of a risk and firm fuel costs to be included as part of your offer into the base residual auction and the transition auctions.

- Q. Would you agree that the capacity performance proposal also eliminates a natural gas commodity cycle unit's ability to declare a force majeure event in which it can avoid its duty to perform?
  - A. That's my understanding, yes.
- Q. Okay. What is your understanding of the natural gas price spikes that occurred during the polar vortex? Would you agree that the price increases were larger in areas with pipeline transmission constraints?
  - A. Yes.

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- Q. Would you agree that if a natural gas combined cycle unit has firm pipeline capacity, it would not be subject to those price spikes?
  - A. No.
  - Q. And why is that?
- A. I read the PJM report from 2015, so a year later, and gas restrictions accounted for

30 percent of the unavailability of generation in February of 2015. And it was spread -- split pretty equally between gas plants behind an LDC as well as those on a transmission pipeline with -- with reservations from the day before, so it's susceptible to a reliability impact whether it's on a transmission system or on an LDC.

- Q. Did you review -- would you agree that those units, as we discussed before, are able to declare a force majeure event?
  - A. I don't know.

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- Q. And do you know what prices those units for natural gas, those units were experiencing?
  - A. I don't know.
- Q. Have you managed pipeline reservation assets?
  - A. Could you rephrase that question?
- Q. Do you have any experience transporting natural gas between two points in a pipeline?
  - A. What do you define as experience?
- Q. Have you ever scheduled the delivery of natural gas for a natural gas power plant?
  - A. Yes.
- Q. And how recently?

- A. Well, every day, my group supplies the natural gas for our gas fleet.
- Q. And this may have to go to the confidential, do any of those natural gas-fired power plants have firm pipeline transportation?
  - A. Yes.

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- Q. And would you agree that those natural gas-fired power plants are able to purchase gas in unconstrained areas and deliver it to constrained areas using the firm pipeline transportation?
  - A. I don't know.
- Q. Have you evaluated the price differentials for natural gas paid by combined cycle generators with firm pipeline transportation versus generators that purchase gas in the spot market?
  - A. No.
- Q. Has anybody in your group performed that analysis?
  - A. With respect to what? To what end?
- Q. My question is whether or not you have an understanding of the prices that a generator with firm transportation pays for natural gas versus a generator that does not have firm transportation.
- A. Yes.

Q. You've done that analysis?

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- A. We've evaluated the cost for our plants, yes.
  - Q. And I'm not sure if this is confidential but would you please share the results that you have determined from that analysis.
  - A. All I can tell you, and it doesn't matter if it's confidential or not, it varies by plant.
    - Q. And why is that?
  - A. It depends on the pipeline configuration, where the plant sits, availability of that firm transportation on the gas pipelines themselves.

    There are a lot of variables that factor into the cost.
  - Q. Would you agree that with the capacity performance proposal being approved, a natural gas combined cycle plant can now procure firm pipeline capacity and enter into a long-term contract for natural gas?
    - A. I don't know.
    - Q. You don't believe that's possible?
  - A. I just don't know. It depends on the plant and the pipeline configuration, where that plant is.

- Q. And it is possible in certain locations, correct?
  - A. Yes.

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- Q. Okay. And if a natural gas power plant does, in fact, procure firm pipeline transportation and secures a long-term contract for natural gas, it can operate as reliable baseload generation?
  - A. Is that a question?
  - Q. Yes.
  - A. Are you asking do I believe that?
- 11 Q. Yes.
  - A. I believe it can, yes.
- Q. Have you reviewed current NYMEX prices for natural gas?
  - A. Yes.
- Q. Would you agree that the one-year strip is trading right below \$3?
  - A. Yes.
- 20 And at that price would you agree that
  21 into a long-term contract that would make it
  22 competitive with most, if not all, coal generators?
- A. I don't know.
- Q. And why don't you know?

- A. It varies by plant and their ability to get that contract.
  - Q. You referenced earlier that natural gas pipelines are susceptible to outages.
  - A. Joe, you are breaking up. We can't hear your question.
  - Q. Sure. Do you remember a discussion earlier where you referenced interstate pipeline outages?
    - A. Yeah.

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- Q. Can you identify a pipeline that has had a large outage?
- 13 A. I referenced it from the PJM winter 2015 14 report, so I can't tell you the specific pipeline.
  - Q. Do you know how long the outage was?
  - A. I do not.
  - Q. And the PJM report you referred to, is that the 2015 winter performance report?
    - A. Yes.
    - Q. Would you agree that in that report PJM identifies that conditions in 2015 were very similar to polar vortex conditions in 2014?
      - A. Yes.
      - Q. Would you agree that PJM also identified

that generation actually performed quite well relative to performance during the polar vortex?

A. Yes.

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- Q. In your testimony you explain that demand response participation in the wholesale market will influence a generation owner's decision to invest.

  Can you explain that?
  - A. You broke up right at the very beginning.
  - Q. Was it --
  - A. Could you repeat the question?
- Q. Sure. Let's -- in your testimony you talk about demand response, correct?
  - A. Yes.
- Q. And you indicate that demand response participation in the wholesale market can influence the generation owner's decision to invest. Can you explain what you mean by that?
- A. Yes. I mean that demand response being paid as a capacity resource has a depressing effect on the clearing price in the marketplace so that limits the revenues from capacity payments to generators.
- Q. Okay. Is it your opinion that demand response only has two options in either being

considered capacity resource that is paid or it goes away completely?

A. No.

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- Q. Are you familiar with PJM's proposal to modify demand response as a reduction of the peak load?
  - A. Yes.
- Q. And wouldn't you agree under that scenario with demand response treated as an avoided cost the result on price is the same?
  - A. I don't know.
- Q. Would you agree that the existence of demand response in general will have a tendency to decrease capacity prices either by reducing load or by paying as a capacity resource?
  - A. Yes.
- Q. Can you explain how FirstEnergy has proposed to expand rider ELR?
- MR. LANG: Objection. Far beyond the scope of the testimony.
  - A. The answer is I don't know.
- Q. In your testimony you indicate that
  natural gas generation will not be available in the
  near-term. Can you explain the basis for this

statement?

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2 MR. LANG: What's the page and line number?

MR. OLIKER: It's toward the end. Give me one second. I believe it is on page 9, line 10.

No, I'm sorry, it's page 8, line 10.

- Q. You say "Moreover, adequate natural gas generation will not be in place in the near term."
  - A. Yes.
- Q. Can you explain the basis for that statement?
- A. Yeah. It's based on my review of what's in the PJM queue. It's based on historical performance outlined in Rod Phillips' testimony and what we've typically seen go into the queue versus actually what gets built.
- Q. Okay. And what natural gas would need to be built -- actually before I ask that question what location are you referring to? Are you referring to PJM or in Ohio or both?
- A. I was really referring to Ohio in my testimony.
  - Q. Okay. And what amount of natural gas would need to be built in Ohio to have a sufficient

amount of natural gas generation available?

A. I don't know.

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- Q. Can you help me explain -- can you help me understand how you know there will not be enough available if you don't know how much needs to be available? And I am not trying to be argumentative.
- A. The reason I don't know is because it depends on where the plant is built and how it would fit into the transmission system. There's nothing proposed on the sites of Sammis and Davis-Besse that would have that same reliability benefit of on-site fuel. So what we see in the queue and what we believe might actually get built doesn't fit into that that criteria.
- Q. Okay. When you talk about the queue -- I am going to look at a few power plants that you may have read about in the news. Can you tell me if any of these plants are in the queue you reviewed? Was the Carroll County plant in the queue?
  - A. Yes.
    - Q. How about the Lordstown plant?
- A. Yes.
  - Q. How about the Middletown plant?
  - A. I don't remember that one.

136 How about Oregon Clean Energy? 1 Q. 2 Α. Yes. 3 Q. How about Rolling Hills? 4 Α. I don't remember that one. 5 Q. How about the Avon Lake retrofit? 6 Α. Yes. 7 Q. And that was about six power plants I 8 just mentioned, correct? 9 Α. Yes. If all of those plants are built by 2018, 10 Q. 11 do you believe that there would still be a 12 reliability problem in Ohio even if Sammis and 13 Davis-Besse were to retire? 14 MR. LANG: Objection. I don't know. I don't believe all those 15 Α. 16 plants will be built. 17 Assume for a second that they are. 18 that event would you agree there would be -- would your concerns be alleviated? 19 20 Α. No. 21 And why is that? Ο. 2.2 Because all of those plants would rely on Α.

not control the 30 days of coal or two years' worth

a just in time delivery system of fuel and they would

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of fuel on site.

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Q. Assume each of those plants has firm fuel and pipeline capacity. Would your concerns be alleviated if they were all constructed under those conditions?

MR. LANG: Objection.

- A. No.
- Q. And why is that?
- A. Firm fuel is just a contract. It can be breached, and you can still have reliability problems associated with pipeline delivery.
- Q. Have you reviewed the penalties in natural gas contracts for breach?
  - A. No.
- Q. Okay. Just to follow up on some of the power plants I believe you discussed earlier, what is your understanding of the Rolling Hills project that I referenced?
  - A. I have not reviewed that one in depth.
- Q. Would you agree that it's approximately a 600-megawatt expansion project?
  - A. I don't know.
- Q. Do you know whether it's a project to convert a combustion turbine to a combined cycle

power plant?

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- A. I don't remember.
- Q. What's your familiarity with the Avon Lake project?
  - A. It's a conversion of the Avon Lake coal plant to burn natural gas.
  - Q. Would you agree that three weeks ago the power -- Ohio Power Siting Board approved a certificate of need to construct a pipeline to that plant?
- A. Yes.
- 12 Q. FirstEnergy participated in that case,
  13 correct?
- A. I don't know.
  - Q. Sorry to jump around here but earlier you mentioned there are problems with price formation in PJM. And I believe you referred to uplift as one of those problems, correct?
    - A. Yes.
- Q. And you referred to the FERC initiative.

  Are you talking about the four workshops that FERC scheduled?
- 23 A. Yes.
- Q. Do you know who Michael Schnitzer is?

A. No.

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- Q. Did you attend any of those workshops?
- 3 A. No.
  - Q. Are there any other problems with price formation besides uplift?
    - A. Could you rephrase the question?
    - Q. What was it about my question you didn't understand?
      - A. I just want to understand in general what you are asking me. Could you rephrase your question?
      - Q. Well, in your testimony you indicate that there are market flaws in PJM, and price formation is one of those market flaws, correct?
  - A. Yes.
- 15 Q. Did I cut off?
- A. Yeah, sorry, I might have got cut off. I said "Yes."
- Q. Okay. First, are there any other issues
  besides price formation that you consider a market
  flaw?
- A. I believe I previously mentioned the reliance on uplift payments.
  - Q. Okay. Anything else?
- A. None that I am remembering right now.

- 1 Isn't it true that the capacity Ο. 2 performance proposal is in part designed to reduce 3 uplift payments? 4 Α. Yes. Do you know who Joe Bowring is? 5 Ο. 6 Α. Yes. 7 Q. Have you read his testimony about the 8 balances on the impact of capacity performance of reducing uplift payments? 9 10 Α. I have not. 11 MR. OLIKER: If I could have just one 12 more minute, that might be all I have in the public 13 session but give me a second.
- MR. LANG: Is there anyone else on the phone that has questions for the public session?

I take that as a no.

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MR. OLIKER: If you want to take a break, then I can let you know when I get back.

MR. LANG: No. Do you know if you are done or not?

MR. OLIKER: I think I am but I would like to have just 2 more minutes. But I will let you know when I get back from the break.

MR. LANG: Why don't you take the 2. If

you are done, we will take a break and dial in on the confidential.

MR. OLIKER: Okay. Good point. Just give me one second.

- Q. (By Mr. Oliker) Okay. I just have a few more questions and then I'm done. Mr. Moul, just to go back you mentioned you have experience managing natural gas power plants with firm pipeline transportation; is that correct?
  - A. Yes.

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- Q. And did you have trouble getting gas with those plants during the winter of 2015?
  - A. No.
- Q. Did you pay any exorbitant costs for the gas that you procured for those plants?
  - MR. LANG: Objection.
- A. That's really outside the scope of the plants we're talking about here. What would you define as exorbitant?
  - Q. Double the average monthly NYMEX price.
  - A. I don't remember.
  - Q. And if you are more comfortable saying this in the confidential, could you tell me the highest price you paid of gas at any of the power

- 1 plants with firm transportation?
- 2 MR. LANG: Objection. Beyond the scope 3 and I am sure it's confidential but.
  - A. I don't remember.

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- MR. LANG: But he doesn't remember.
- Q. I understand if you want that to be confidential, but if you know the answer, I would like it.
  - MR. LANG: He said he doesn't remember, so I guess that resolves that problem.
- 11 Q. Okay. Do you have a general idea,
  12 Mr. Moul?
  - A. We typically hedge our gas forward, so I don't -- I don't recall the prices though.
  - Q. And when you say you hedge your gas forward, is it your -- are you saying that you purchase gas for the power plants a month in advance or a week in advance?
  - A. Let's save this for the confidential portion.
  - Q. That's fine. Okay. The -- I think this may be the last one. Is it your testimony that the capacity performance proposal will not ensure PJM maintains reliability?

- A. Could you say that again?
- Q. Very simply do you believe that the capacity performance proposal will allow PJM to maintain reliability on the grid?
  - A. I don't know.
  - Q. And why is that?
- A. There's still uncertainty with respect to market participant behavior.

MR. OLIKER: Okay. That's all I have for the public session, I believe.

MR. LANG: Okay. Let's -- let's -- we are going to drop off this line and for the folks with confidential questions who have signed the nondisclosure agreement, we'll come back at 15 after the hour and then start up with Sierra Club again.

(Recess taken.)

(CONFIDENTIAL PORTION EXCERPTED.)

	215
1	State of Ohio :
2	County of Summit : SS:
3	I, Donald A. Moul, do hereby certify that I have read the foregoing transcript of my deposition
4	given on Wednesday, June 24, 2015; that together with the correction page attached hereto noting changes in
5	form or substance, if any, it is true and correct.
6	Donald A Moul
7	Donald A. Moul
8	Donard A. Modr
9	I do hereby certify that the foregoing transcript of the deposition of Donald A. Moul was
10	submitted to the witness for reading and signing;
11	that after he had stated to the undersigned Notary Public that he had read and examined his deposition,
	he signed the same in my presence on the 29th day
12	of <u>June</u> , 2015.
13	eleka & Slowers
14	Notary Public
15	
16	My commission expires <u>lec. 3</u> , <u>2019</u> .
17	RIAL SCALE
18	Debra S. Flowers
19	Notary Public, State of Ohio My Commission Expires 12-03-2019
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## TO THE REPORTER:

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Date 6/29   2015 Signatur	re: Assald A Ulval

	216
1	CERTIFICATE
2	State of Ohio : : SS:
3	County of Franklin :
4	I, Karen Sue Gibson, Notary Public in and for the State of Ohio, duly commissioned and qualified,
5	certify that the within named Donald A. Moul was by me duly sworn to testify to the whole truth in the
6	cause aforesaid; that the testimony was taken down by me in stenotypy in the presence of said witness,
7	afterwards transcribed upon a computer; that the foregoing is a true and correct transcript of the
8	testimony given by said witness taken at the time and place in the foregoing caption specified and completed without adjournment.
9	Completed without adjournment.
10	I certify that I am not a relative, employee, or attorney of any of the parties hereto, or of any
11	attorney or counsel employed by the parties, or financially interested in the action.
12	IN WITNESS WHEREOF, I have hereunto set my
13	hand and affixed my seal of office at Columbus, Ohio, on this 26th day of June, 2015.
14	
15	Karen Sue Gibson, Registered
16	Merit Reporter and Notary Public in and for the State of Ohio.
17	My commission expires August 14, 2015.
18	(KSG-6061)
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Summary: Deposition (Public) of Donald A. Moul, Vol. II, electronically filed by Mr. Tony G. Mendoza on behalf of Sierra Club