IN THE PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the :
Application of Ohio Edison:
Company, The Cleveland :
Electric Illuminating :
Company, and The Toledo :

Edison Company for : Case No. 14-1297-EL-SSO

Authority to Provide for: a Standard Service Offer: Pursuant to R.C. 4928.143: in the Form of an Electric: Security Plan.

- - -

DEPOSITION

of Jason Lisowski, 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 Friday, December 19, 2014, at 8 a.m.

- - -

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23		
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7 Friday Morning Session, 1 December 19, 2014. 2 3 4 MR. ALEXANDER: Let's go on the record. 5 This is Trevor Alexander. I am one of the 6 lawyers representing the companies in this case. At 7 this point I would like everybody on the phone to 8 identify themselves. MR. SOULES: This is Michael Soules 9 10 representing Sierra Club. 11 MR. OLIKER: On behalf IGS Energy, Joseph 12 Oliker. MS. FLEISHER: Madeline Fleisher with the 13 14 Environmental Law & Policy Center. 15 MR. PRITCHARD: Matt Pritchard, Industrial Energy Users of Ohio. 16 17 MR. STINSON: Dane Stinson, NOPEC. 18 MS. HUSSEY: Rebecca Hussey on behalf of 19 the Ohio Manufacturers' Association Energy Group. 20 MR. O'ROURKE: Ryan O'Rourke, counsel for 21 staff. 2.2 MS. MOONEY: Colleen Mooney, counsel for 2.3 Ohio Partners for Affordable Energy.

24

MR. PARRAM: Devin Parram, counsel for

The Kroger Company.

MR. SAUER: Larry Sauer, OCC.

MR. SETTINERI: Mike Settineri, on behalf of RESA, the law firm Vorys, Sater, Seymour and Pease.

MR. ALEXANDER: Is anyone else on the phone who has not yet identified themselves?

MR. STINSON: I may have talked over someone but this is Dane Stinson, Bricker & Eckler, representing NOPEC.

MR. ALEXANDER: With that, thank you, everyone, and we will go ahead and get started with the public version first. All parties will have an opportunity to ask all their public questions, and then we will switch over to a confidential line and do the confidential questions. So with that I think we are ready to get started.

MR. FISK: Okay. Great. Thank you.

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1	JASON LISOWSKI
2	being by me first duly sworn, as hereinafter
3	certified, deposes and says as follows:
4	CROSS-EXAMINATION
5	By Mr. Fisk:
6	Q. Good morning, Mr. Lisowski.
7	A. Good morning.
8	Q. How are you today?
9	A. I am doing well.
10	Q. Good. Could you state your name for the
11	record.
12	A. Yes. Jason Lisowski.
13	Q. Okay. And what is your business address?
14	A. It is 341 White Pond Drive, Akron, Ohio
15	44320.
16	Q. Okay. And am I correct that you are
17	appearing today in two different capacities?
18	A. Which capacities?
19	Q. Well, one, on behalf of the applicants in
20	this proceeding, Ohio Edison Company, Cleveland
21	Illuminating, and Toledo Edison?
22	A. That is one of them.
23	Q. Okay. And then, secondly, you've been
24	identified as a witness for FirstEnergy Solutions in

response to a subpoena served by the Sierra Club on November 25; is that correct?

A. That's correct.

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- Q. Okay. And that's with regard to topics 1 and 2 of that subpoena?
 - A. That's correct.
- Q. Yes, okay. Great. And what company do you work for?
- A. I work for FirstEnergy Service Company.

 MR. FISK: Okay. Let me go ahead and
 actually mark this as Exhibit 1. I'm marking as

 Exhibit 1 the companies' response to Sierra Club's

 Set 4-Request for Production-88 Attachment 1 which is

(EXHIBIT MARKED FOR IDENTIFICATION.)

Q. Do you have that in front of you?

a one-page organizational structure of FirstEnergy.

- A. I do.
- Q. Okay. And does it appear to be a summary of organizational structure of FirstEnergy?
- A. This is printed in black and white and it does appear that there is color coding with it and so it doesn't seem to be as clear whether the color coding is -- is lining up with what I would have expected. It's just I can't tell from looking at it.

- Q. Okay. But outside of that does it appear to be an organizational structure?
 - A. It does, yes.

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- Q. Okay. And where is FirstEnergy Service Company on this organizational structure? Do you know?
- A. FirstEnergy Service Company is a wholly-owned legal entity of FirstEnergy Corp.
- Q. Okay. So it's not identified on this organizational structure, correct?
- 11 A. It is not listed on this organizational structure.
- Q. Okay. But it's a direct affiliate of FirstEnergy Corp.?
 - A. It is.
- Q. Yes, okay. Okay. And in your testimony
 on page 1, you -- line 3, you state that you were
 employed by FirstEnergy Service Company as the
 assistant controller-FES/FEG at FirstEnergy Solutions
 Corp. What -- what do you mean that you are employed
 at FirstEnergy Solutions Corp.?
 - A. I'm employed by FirstEnergy Service Company.
- 24 Q. Okay.

A. My title for FirstEnergy Service Company is assistant controller of the FES/FEG, and my primary responsibilities are to support FirstEnergy Solutions Corp.

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- Q. Okay, okay. And your office, is that at FirstEnergy Solutions Corp., or is that at FirstEnergy Service Company?
 - A. I don't understand your question.
- Q. Your physical location, where you work, is that FirstEnergy Solutions Corp. building, or is that a FirstEnergy Service Company building?
 - A. I don't know who owns the building.
- Q. Okay, okay. A from what company do you receive your paycheck?
 - A. FirstEnergy Service Company.
- Q. Okay, okay. So you do not yourself work for FirstEnergy Solutions?
 - A. I am an officer as an assistant controller for FirstEnergy Solutions Corp. among other entities of FirstEnergy.
 - Q. Okay. What do you mean when you say you are an officer of FirstEnergy Solutions?
- A. I am named as assistant controller of
 FirstEnergy Solutions Corp. among many other entities

of FirstEnergy Corp.

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- Q. Okay. What other entities of FirstEnergy Corp. are you an officer of?
- A. There's a large number of them, one being FirstEnergy Service Company, one being FirstEnergy Corp., one being Ohio Edison, Cleveland Electric Illuminating, Toledo Edison Company, among many others, other entities as well.
- Q. And as an officer, what is your duty to FirstEnergy Solutions Corp.?
- A. If you look on page 1 of my testimony, starting on row 16, you'll see I outline what my key responsibilities are in my role.
 - Q. Okay. Who do you report to?
 - A. I report to John Taylor.
 - O. And who is he?
- A. John Taylor is our vice president, controller, and chief accounting officer.
 - O. And who does he work for?
 - A. He works for James Pearson.
 - O. And who is Mr. Pearson?
- A. He is our FirstEnergy's chief financial officer.
- Q. And I guess going back to Mr. Taylor,

14 which entity does he work for? 1 2 He is employed by FirstEnergy Service 3 Company. 4 0. Is he also an officer of FirstEnergy Solutions? 5 6 Α. I don't know that. 7 Q. Okay. And Mr. Pearson, which entity is 8 he employed by? 9 He is employed by FirstEnergy Service 10 Company. 11 And so are you -- do you report to anyone Ο. 12 at FirstEnergy Solutions Corp.? 13 Α. No. Okay. And do you report to anyone at 14 Q. Ohio Edison Company? 15 16 Α. No. 17 Q. Okay. Do you report to anybody at 18 Cleveland Electric Illuminating Company? Α. 19 No. 20 And do you report to anyone at Toledo Q. 21 Edison Company? Α. 2.2 No. Okay. And does anyone report to you? 2.3 Q.

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Α.

Yes.

- Q. And who?
- A. I have over 60 people that work for me either directly or through one of the people that do report directly to me.
 - Q. Okay. And are all those people employed by FirstEnergy Service Company?
 - A. No.
 - Q. No. Does anybody in FirstEnergy Solutions Company report to you?
- 10 A. No.
- Q. Okay. How about from Ohio Edison
- 12 Company?

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- 13 A. No.
- 14 Q. How about Cleveland Electric
- 15 Illuminating?
- 16 A. No.
- 17 Q. And Toledo Edison?
- 18 A. No.
- Q. Who do they -- what entity do the people who are not from FirstEnergy Service Company that report to you, what entity are they from?
- A. They are employees of FirstEnergy Nuclear
 Operating Company.
- Q. Okay. And in your job title, assistant

- controller, and then you say FES/FEG, am I correct FES is FirstEnergy Solutions Corp.?
 - A. Yes.
- Q. Okay. And FEG, is that FirstEnergy Generation?
- A. Yes.

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- Q. Okay. And so are you also an officer of FirstEnergy Generation?
 - A. Yes.
- Q. Okay. And do you receive any

 compensation for being an officer at FirstEnergy

 Generation?
- 13 A. No.
- Q. No, okay. And no compensation from

 FirstEnergy Solutions for being an officer?
- MR. ALEXANDER: Objection. Just to

 clarify are you asking for compensation directly from
 those entities?
- 19 MR. FISK: Yes.
- 20 MR. ALEXANDER: Okay. Or compensation as
 21 part of his overall compensation, FirstEnergy Service
 22 Company to compensate him for the work on behalf of
 23 those entities?
- 24 MR. FISK: Directly from those entities,

- 1 any compensation.
- 2 A. No.

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- Q. Okay. And you've worked at FirstEnergy since 2004; is that correct?
 - A. I'm sorry, could you repeat the question?
- Q. You worked at FirstEnergy since 2004; is that correct?
 - A. That's correct.
- 9 Q. Okay. And did you have any employment 10 before that?
- 11 A. Yes.
- Q. Okay. And where?
- A. At a private country club working in the food and beverage operations.
- Q. Okay, okay. Have you had any other employment in the energy sector?
- 17 A. No.
- Q. Okay. And on page 1 of your testimony,
 you list that you have a Bachelor's and MBA from the
 University of Akron; is that correct?
- 21 A. That is correct.
- Q. Okay. And do you have any other educational degrees?
- A. I do have an Associate's degree.

- Q. Okay. And what's that in?
- 2 A. Business management.
 - Q. Okay. And where from?
 - A. Cuyahoga Community College.
 - Q. Okay. Anything else?
 - A. No.
 - Q. No, okay. And do you feel that you have any other educational background relevant to your current job duties besides the ones listed in your testimony?
 - A. No.

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- Q. No, okay. And do you have any -- have you had any training relevant to your job duties?
 - A. What do you mean by training?
- Q. Any sort of courses that you've taken or training that FirstEnergy offers of how to do your job.
 - A. Yes.
 - Q. Okay. Have you had any training specifically in modeling of power plants?
 - A. Could you rephrase the question?
 - Q. So you offer testimony in this proceeding regarding the results of economic dispatch modeling; is that correct?

- A. That's correct.
- Q. Okay. And have you had any training in economic dispatch modeling?
 - A. No.

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- Q. Okay. Did you -- the economic dispatch modeling that you discuss in your testimony, did you do that modeling?
 - A. It was done under my supervision.
- Q. Under your supervision, okay. Who actually did the modeling?
- A. It was done under my supervision by a group within our FirstEnergy Service Company.
 - Q. Okay. And what group?
 - A. Business development.
- Q. Business development. Okay. And do you know who in particular at -- in the business development group did the modeling?
- A. There's a number of people in that group.

 I have no -- I don't know specifically who actually ran the model.
- Q. Okay. And so have you ever personally run an economic dispatch model?
 - A. What do you mean by run the model?
- Q. Actually input the data into -- into the

model and made all the settings in the model and then gotten the outputs.

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- A. The person that's just keying the numbers into the model, pushing a button, getting the outputs, that doesn't require a lot of technical expertise associated with doing that. It's more relevant let me take that back. It's more it doesn't really matter in terms of who the actual person is that's pushing the button or actually putting in the model. It depends on the results.
- Q. So you're saying that anyone can run an economic dispatch model?
 - A. No, that's not what I said.
- Q. Okay. So have you personally ever run the model?
- MR. ALEXANDER: Objection. By run are you saying hit the button?
 - MR. FISK: Well, he just defined it.
 - A. Could you clarify?
- Q. Put the inputs into the system, decided what assumptions the model should be running on, and gotten the outputs.
- A. So when you mean run, putting inputs in, understanding the assumptions, and then understanding

the outputs?

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- O. Yes.
- A. Or just putting in inputs, pushing the button, here are the outputs.
- Q. No, the full process of putting the inputs in, understanding what assumptions are going into the modeling, getting outputs from it.
- A. Okay. So that process that you just laid out isn't done by just one person.
 - Q. Okay.
- A. There's a number of people that are involved in that process.
- Q. Okay. And what -- have you had any role in that process?
 - A. My role is understanding the assumptions that were input -
 - Q. Okay.
- A. -- understanding how the model works, and among other things understanding the outputs of the model.

I want to clarify something. A couple of questions ago you asked if I had any formal training on the model or how to do modeling -- I'm sorry, I believe you said did I have any training on how to

model, and I said no. I want to clarify that. I've never had formal training like a college course on how to do modeling. But in my role as the assistant controller, understanding the financials and the finance impacts associated with the model, I've had numerous understanding and training and discussions with how the model works, so I do understand all those aspects. So as I think about it more, I would -- I would say that those items have trained me on how the model works and understanding how the model produces what it produces.

- Q. Okay. Was that training formal training?
- A. What do you mean by formal?
- Q. Like a course or --
- A. Not a -- not a course, no.
- Q. Not a course, okay. And have you ever been the person that's actually sat down and put the inputs in and hit the button to get the results from the model?
 - A. No.

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- Q. Okay. And would you -- would you understand how to evaluate the model itself in terms of whether it's producing good results?
 - A. What do you mean by good results?

- Q. Well, accurate results.
- A. Accurate, yes.

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- Q. Okay. What would you do to verify?
- A. There's a number of steps that would be involved. Understanding the inputs that are being included in there, understanding assumptions that are being included in there, and then understanding the outputs and as they appear to fit with those inputs.
- Q. And with regards to the assumptions that go into the model, would you personally know how to check to make sure the model itself is reflecting the assumptions that you believe are being input into it?
 - A. What do you mean by check?
- Q. Verify that, you know, if you made an assumption about how the model should be operating, do you know how to go into the model and verify that it's properly set to match that assumption?
- A. Could you rephrase the question? I am not following your question exactly.
- Q. Well, let me take a step back. So you mentioned assumptions going into the model, correct?
 - A. I did, yes.
- Q. Can you give me an example of one of those assumptions.

- A. Sure, energy price forecast.
- Q. Okay, okay. And would you be able to personally go look in the model to make sure the correct energy price forecast was included?
 - A. Yes.
 - Q. Okay. And have you done that?
 - A. I have.
- Q. Okay. And did you do that with regards to the modeling in this proceeding?
 - A. I have.
- Q. Okay, okay. So you said that the business development group did the actual modeling itself here, correct?
 - A. No.
- 15 O. Who did it?
- 16 A. It was done under my supervision.
- Q. By the business development group,
- 18 correct?

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- A. Could you rephrase the question?
- Q. I asked you earlier if you had done the modeling, and you said, no, it was done under your supervision, correct?
- MR. ALEXANDER: Objection, misstates
 prior testimony. Go ahead and answer, if you can.

- A. What I said was the actual people that push the button that run the model was business development.
 - Q. Okay.

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- A. The model assumptions, all those items were run under my supervision.
- Q. Okay. And so did you -- you gave them the inputs to use in the model?
- A. The -- I was not the one that developed all the inputs.
 - Q. Okay. Who developed the inputs?
- A. If you look at my testimony page 2, lines 4 and 5, we talk about the market price estimates.

 That's an input that was provided by Company Witness Rose.
 - Q. Okay.
- A. There is an example. We also talk about row 10 that there is FES -- other internal cost projections provided by FES --
 - Q. Okay.
 - A. -- that was an input.
- Q. Okay. And those internal cost projections, who provided those?
- A. Which internal cost projections?

- Q. The ones you are referring to on line 10 of page 2 of your testimony.
- A. Those are FES internal cost projections related to these plants.
- Q. Okay. So someone from FES provided those cost projections to you; is that correct?
 - A. They are -- FES has them available.
 - Q. Okay.

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- A. That I have access to in my role at FES.
- 10 Q. Okay. So you obtained them from FES, the cost projections.
 - A. The cost projections, yes.
 - Q. And then you provided those to whoever in the business development group actually pressed the button on the model.
- 16 A. These cost projections that FES provided
 17 have no impact on the actual dispatch model.
 - Q. Okay. But they were used as part of the model or no?
 - A. They were.
 - Q. Okay.
- A. Let me take that back. I'm sorry. Could you repeat the question?
- Q. Were they used as part of the model, the

cost projections?

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- A. As part of the model, no.
- Q. No, okay. Then we have Witness Rose's market price estimates, correct?
 - A. That's correct.
 - Q. Okay. And so he provided those to you?
 - A. Yes.
 - Q. Okay. And then you provided them to whoever in the business development group is doing -- running, pressing the button on the model?
 - A. That's correct.
- Q. And did you do anything to verify the market price estimates provided by Mr. Rose?
 - A. What do you mean by verify?
 - Q. To assess whether they are reasonable.
- A. I'm not in a position to determine

 whether Witness Rose's projections are reasonable or

 not.
 - Q. Okay. So you -- do you feel you have any expertise in -- in market price projections?
 - A. No.
 - Q. Okay. So you are not offering any opinions on those projections.
 - A. When you say those projections, Witness

Rose's projections?

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- O. Yes.
- A. No.
- Q. Okay. You testified a few minutes ago that -- I believe that you have an understanding of how the model works; is that correct?
 - A. That's correct.
- Q. Okay. Can you generally describe to me how the model works?
- A. If you look on page 5 of my testimony, starting on row 11 continuing through row 23, I discuss how the forecasting model works.
- Q. Okay. And -- okay. So you said -- you testify on lines 12 to 13 that the forecasting model -- the proprietary monthly dispatch model that incorporates financial and operational inputs; is that correct?
 - A. That's correct.
- Q. Okay. And the financial and operational inputs, where did those inputs come from for the modeling in this proceeding?
 - MR. ALEXANDER: Objection. Go ahead.
 - A. Could you rephrase the question?
 - Q. The financial and operational inputs that

you are referring to in your testimony, where did -- where did those inputs come from?

MR. ALEXANDER: Objection. Go ahead.

- A. Could you rephrase the question?
- Q. Okay. You said that -- you've stated that your model incorporates financial and operational inputs, correct?
 - A. That's correct.
 - Q. Okay. Do you know what those inputs are?

 MR. ALEXANDER: Objection. Go ahead.
- A. If I read on beyond row 13, it discusses those inputs and where they came from.
- Q. Okay, okay. So there's a reference to Company Witness Rose providing energy prices again.

 Am I correct that there are other inputs besides energy prices?
- A. Yes.

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Q. Okay. And where -- so you also list generation capabilities of each FES generation facility, correct?

MR. ALEXANDER: Objection. Are we referring to the model generally, or are you referring to the modeling done for this case for his testimony?

MR. FISK: The modeling done in this case.

MR. ALEXANDER: Thank you.

- A. Could you repeat the question?
- Q. So you refer on lines 14 to 15 the model incorporates the generation capabilities of each FES generation facility, correct?
 - A. That's correct.

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- Q. Okay. And where did the inputs regarding the generation capabilities of each FES generation facility come from?
- A. Those are already developed within the model. Those are already inputs in the model.
- Q. Okay. From -- from previous modeling runs or?
- A. Right. Remember, FES will use this model beyond just this this case. We will use this model constantly. We use this in many other cases and so a lot of these inputs, for example, on the generation capabilities are already in the model and we FES will review those and make sure if they are accurate and appropriate.
 - Q. And do you know who developed the model?
 - A. The model in general?

Q. Yes.

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- A. No, I don't.
- Q. Okay. Did you have any role in developing the model in general?
 - A. No.
- Q. Okay. Do you know how long FES has used this model?
- A. As long as I've been at FES, we have been using this model and even prior to that. I don't know what year we started using it, but for as long as I can remember, we have been using this model for -- for all of our internal projections.
- Q. Okay. Do you know, is the model ever updated or -- updated?
 - A. What do you mean by updated?
- Q. Like, is there a new version of the model, you know, like how you have a computer program, you have Microsoft Word 7.0, 8.0? Is there ever a new version of the model?
- A. We've previously disclosed that it is
 Microsoft Excel based. So if we upgrade Microsoft
 Excel, I suppose you could say that in terms of how
 you are responding to it, but the model doesn't have
 a brand new model that we come out with. It's the

same model. If we know things like generation capabilities as we talked about earlier have changed or things have happened with the plant, FES will update those assumptions within the model, but we don't come out with new models or new versions of the model, no.

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- Q. Okay. When you say it's Microsoft Excel based, what does that mean?
- A. It means the model is run by -- it's -- let me take that back. It's -- the model calculations are within a Microsoft Excel application.
- Q. Okay. So -- so you're plugging various inputs into some version of a Microsoft Excel and that's running -- running the data and giving you outputs?
- A. We're -- we're plugging it into our internal proprietary model which is Microsoft Excel based.
- Q. Okay. Do you know if any changes made have been made to the Microsoft Excel program for your proprietary model?

MR. ALEXANDER: Objection. Are you referring to Excel as a program, or are you referring

to the coding in Excel?

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MR. FISK: Excel as a program.

- A. No.
- Q. Okay. And how about the coding in Excel?
- A. I'm sorry, the coding in Microsoft Excel?
- Q. So, I mean -- I mean, are you just -- basically you have Microsoft Excel 97 or whatever and you are putting numbers into Microsoft Excel and Microsoft Excel is running it or is there something added to Microsoft Excel that makes this somehow different than just doing a spreadsheet?
- A. No. Our -- what's proprietary about it is it's -- it's a Microsoft Excel workbook that we've built calculations within it that can then produce the modeling outputs.
 - Q. Okay.
 - MR. ALEXANDER: Let's go off the record.

 (Discussion off the record.)
- Q. Okay. And are you are you generally aware that there are other commercially available economic dispatch models that can be used to, you know, project operation of power plants?
 - A. Yes.
 - Q. Okay. And, for example, have you ever

heard of Strategist?

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- A. No.
- Q. Okay. Have you ever -- do you know of any particular other types of modeling programs that can be used to economically dispatch?
 - A. I don't know the names of them.
- Q. Okay. Have you ever been involved in any cases using some other type of economic dispatch model?
 - A. No.
- Q. Okay. Do you know if FirstEnergy has ever run some sort of other economic dispatch model besides its internal proprietary one?
 - A. What do you mean run?
- Q. Evaluated its generation fleet or one of its plants using some sort of commercially available economic dispatch model.
 - A. No.
 - Q. You don't know or they haven't?
 - A. Not that I am aware of.
- Q. Okay. Okay. So turning back to the question of -- I believe when I asked you your understanding of how the model works, you referred me to your testimony page 5, lines 1 to 23; is that

correct?

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- A. Yes.
- Q. Okay. So am I correct there are -- so there are some inputs that you put into the model including forecasted energy prices, and then the model then projects how often the plants will run; is that correct?
 - A. That's correct.
- Q. Okay. And that projection, am I correct, is based on comparing the variable cost of operating the plant to the market energy price?
 - A. That's correct.
- Q. Okay. And so if the variable operating cost for the plant is under the market energy price, the model will assume that the plant operates?
 - A. That's correct.
- Q. Okay. And if the variable operating cost is over the market energy price, then the model will assume that the plant won't operate?
 - A. No.
- Q. Okay. What would the model assume then?

 MR. ALEXANDER: At this point I am going to ask we move any further discussion to the confidential portion because we are starting to get

close to that line.

2 MR. FISK: Okay. I can -- I can do that.

3 Questions about the -- where the inputs came is

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MR. ALEXANDER: That's fine.

MR. FISK: -- in the public. Okay.

- Q. We will table that conversation to later.

 Okay. Well, so I want to go back to the inputs -- so the inputs are looking at the variable operating costs for the plant, correct?
- 11 A. I'm sorry, could you restate the question?
 - Q. One of your inputs into the model is the various elements of the variable operating costs of the plant, correct?
 - A. That's correct.
 - Q. And for this proceeding you ran your model through the life of the proposed rider which I believe is 2031, correct?
 - A. No.
 - Q. No, you didn't run it through there or that's not the correct year?
 - A. It was run through the term of the PPA, not the term of the rider.

- Q. Okay. The term of the PPA which would be through 2031, correct?
 - A. No, through May 31 of 2031.
- Q. Okay. May 31, 2031, okay. And so you project -- you input projections of the variable operating costs for the Sammis units into the model; is that correct?
 - A. Yes.

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- Q. And where did those projections come from?
- A. Look at -- starting on page 4 of my testimony, row 22, we talk about Sammis where the inputs for the fuel costs were provided by Company Witness Rose.
- Q. Okay. And did you do anything to assess whether those projections from Company Witness Rose were reasonable?
 - A. I just used what he provided me.
- Q. Okay. So you don't have any opinions regarding whether those projections are reasonable or not?
 - A. I do not.
- Q. Okay. And then I guess turning over to page 5 of your testimony, the nuclear fuel and other

fuel-related expenses were forecasted using internal forecasts; is that correct?

A. That's correct.

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- Q. Okay. And do you know who did those internal forecasts?
- A. Again, those are items we have regularly available within the model that FES would evaluate whether they are appropriate or not.
- Q. Okay. And did you have any role in evaluating whether those were appropriate?
- A. I looked at them. They seemed reasonable to me, and so I didn't have any reason to believe otherwise.
- Q. Okay. Do you have any expertise in forecasting nuclear fuel and other fuel-related expenses?
- A. I -- as part of our normal forecasting process, I understand and see what the projections are provided for those items and so based on my -- what I've experienced as those costs, evaluated from that perspective.
- Q. Okay. But outside of that you don't have any -- do you claim any expertise in projecting nuclear fuel expenses?

A. No.

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- Q. Okay. And then the variable fuel costs

 for the OVEC units were provided by OVEC; is that

 correct?
 - A. Some of them were.
 - Q. Okay. Which ones were?
 - A. The fuel and fuel-related expenses.
 - Q. Okay.
- 9 A. Coal in particular were provided by OVEC and that's what we used.
- 11 Q. Were there other -- other variable costs
 12 for OVEC that were not provided by OVEC?
 - A. Yes.
- Q. Which ones were those?
- A. Company Witness Rose provided a carbon assumption and a carbon price that was used as an input.
- Q. Okay. And that carbon price was provided
 for -- by Mr. Rose for -- also for Sammis; is that
 correct?
 - A. That's correct.
- Q. And did -- did you personally do anything
 to evaluate whether Mr. Rose's carbon price
 projection was reasonable?

- 40 1 Α. No. 2 Okay. Are you offering any opinions Q. 3 regarding the reasonableness of his price projection? 4 Α. No. 5 MR. ALEXANDER: Can we take a brief 6 break? 7 MR. FISK: Go off. 8 (Discussion off the record.) 9 Okay. And the variable fuel costs 0. 10 projection that you received from OVEC, did you do 11 anything to evaluate the reasonableness of that 12 projection? 13 Α. No. Okay, okay. And then Mr. Rose also 14 Q. provided to you projected capacity prices; is that 15 correct? 16 17 Α. Yes.
 - Q. Okay. And did you do anything to evaluate the reasonableness of those capacity price projections?
 - Α. No.
 - And are you offering any opinions Q. No. regarding capacity price projections?
- 24 Α. No.

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Q. No, okay. Okay. So -- and let me know if I start encroaching on confidential again, but you plug all these variable operating costs into the model. You plug an energy price into the model. Any other inputs you put into the model?

A. Yes.

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Q. And what else?

- A. We would input any operational-related matters as an input.
- Q. Okay. And that's things like outages, forced outage rates, planned outages, those sorts of things?
- A. Like I talk about on page 5 of my testimony, starting on row 14, items such as assumed unavailability, forced losses, EFOR, planned outages, et cetera.
 - Q. Okay. Any other inputs?

MR. ALEXANDER: Objection. Just to clarify does the model itself incorporate any other inputs, or did Mr. Lisowski alter or provide any other inputs?

MR. FISK: Let's start did Mr. Lisowski provide any other inputs into the model for purposes of the modeling that was done in this case.

- A. No. I didn't provide any other inputs.
- Q. Okay, okay. So you have those -- you have the -- all the inputs about the operating costs and operation of the plants. You have an energy price input, and then the model compares the operating costs and any operational restrictions to the energy price and then projects dispatch; is that right?
 - A. Very oversimplified, yes.
- Q. Okay. And then the model itself has some built-in assumptions; is that also correct?
 - A. What do you mean by built-in assumptions?
- Q. Well, for example, do you know when -- do you know what I mean when I say must run?
- A. I guess if you could define it just to make sure.
 - Q. Sure. So if -- you can tell the model this unit has to run any time -- has to run all the time versus is only dispatched economically.
 - A. Okay.

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- Q. Do you know, were there any assumptions regarding must run versus economic dispatch in this model?
- A. I'm sorry, could you restate the

question?

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- Q. Were -- the modeling that you did for this proceeding, did you -- did you have the model assume that the units would be economically dispatched or that they would be must-run units?
 - A. Economically dispatched.
- Q. Okay, okay. And do you know in actual practice whether the Sammis units are economically dispatched or whether they are must run?
 - A. What period of time are we talking?
 - Q. In the past five years.
- A. FES changes its strategies around how the units are dispatched.
 - Q. Okay.
- A. There might have been times it was economically run. There may have been times when it was a must run. I don't know specifically. I am not involved with the dispatching of the plant.
- Q. Okay. Who made the decision to have the model assume that the units were economically dispatched versus must run?
- A. Again, FES uses this model in many other cases as part of its normal course, and it's always been run on an economic dispatch.

Q. Okay, okay. So you personally didn't do anything to verify whether that economic dispatch assumption is consistent with how the units are actually operated?

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- A. What do you mean I verified, whether I verified?
- Q. Did you -- did you -- did you do anything to check whether an assumption of economic dispatch versus must run is consistent with how actual operations occur?
- A. I know FES looks at its units and at times has run the units economically and other times has run possibly as must run. Overall they use it as an economic dispatch. We believe that was appropriate in terms of the forecast that was used here as well which is consistent.
 - O. Which was consistent with?
- A. How FES would forecast this plant and any other case of an internal forecast.
- Q. Okay. It's consistent with how they forecast, but if they -- if they sometimes must run their units, that's inconsistent with how they actually operate the units, correct?
- A. I mean, if FES -- I don't know why FES if

they were going -- if they knew that the units run as a must run all the time, I don't know why they would ever say that and use internal projections and internal forecasts that's using some type of different assumption behind that.

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- Q. Okay. But you've never -- you haven't personally sat down and compared the actual operations with the assumption of economic dispatch, correct?
- A. I don't know why FES would be using a different assumption in a forecast versus how they know the plants operate. But, no, I did not go through and actually compare what -- historically how the Sammis plant has been dispatched.
- Q. Okay. And do you know where the assumption of economic dispatch in the modeling came from?
- A. Again, FES uses that forecast in all cases, and so it was already built into the forecast.
- Q. Okay. And does the model that you used in this proceeding, does it only assess the dispatching of the units at issue versus the market price of energy, or does it also evaluate dispatching in competition with the rest of PJM?

- A. Could you repeat the question?
- Q. Sure. Let me take a step back. Would you agree that FES's generating units, Sammis,

 Davis-Besse, the OVEC units, they dispatch in competition with other units in PJM; is that correct?
- A. I'm not involved with the daily dispatching of FES's units.
- Q. Okay. Do you generally know how the PJM system dispatches?
 - A. In very high level general terms.
- Q. Would you agree that -- that PJM gets -- gets bids and then tries to dispatch the least cost resources to operate?
- MR. ALEXANDER: Objection. Beyond the scope of his testimony. Go ahead.
 - A. I am not involved with the daily dispatching with PJM of our units --
 - Q. Okay.

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- A. -- and what the offers are. I am not involved with any of that.
- Q. Okay. Do you know if your model assumes a -- that FES's units are having to compete for dispatch with any other units outside of the FES system?

- A. Just to make sure I am clear, you are asking me if the model incorporates some type of analysis that -- of how non-FES plants are also going to be dispatching or bidding their --
 - O. Yes.

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- A. No, the model doesn't incorporate any of that.
- Q. Okay. So the model only looks at FES-specific units.
 - A. Based on the inputs that were provided.
- Q. Okay. And do you -- do you have the opinion as to whether just looking at the FES units in the modeling is an accurate reflection of how dispatching would occur in reality?
- A. Like I said, I am not involved with the dispatching. I am not involved with all the rules that PJM has for dispatching, so I wouldn't be in that position.
- Q. Okay. And your modeling, am I correct, was done on a monthly basis?
 - A. That's correct.
- Q. Okay. But the results are produced on an annual basis only?
- A. That's correct.

- Q. Okay. And so -- so the Excel program itself converts the monthly data into annual outputs?
- A. Oversimplified, generally speaking, that's correct.

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Q. Do you know what the process is?

MR. ALEXANDER: Let's save that for the confidential portion.

MR. FISK: Save that? Okay.

- Q. Okay. I'll move on from that area then.
 Okay. So you've run your modeling program. You've gotten results from the -- from the model. What did you do with those results for purposes of this proceeding?
- A. I used the results to prepare the attachments in my testimony.
- Q. Okay. And you're referring to JJR-1, 2, and 3, I believe; is that correct?
 - A. That's correct.
- Q. Okay. And so those -- those results -- you check the results of your modeling and then which -- strike that.

The modeling only looks at the cost of operation of the units versus the energy revenue that would be created from such operation, correct?

A. No.

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- Q. What else does the modeling look at?
- A. It looks at the variable costs of operation.
- Q. Okay. Variable costs of operation versus the energy revenue that would be produced, correct?
 - A. That's correct.
- Q. Okay. And then in your exhibits you then, am I correct, added -- added in capacity revenue from the units?
 - A. I'm sorry, could you repeat the question?
- Q. Is your -- you then in your -- in your Exhibits JJL-1, 2, and 3, you then added capacity revenue that you're expecting from the units?
- A. Witness Rose provided the capacity assumptions. Based on those assumptions, we calculated the forecasted capacity revenues which I then incorporated into JJL-1 through 3.
- Q. Okay. And then -- and then you also incorporated any ancillary revenues from the units?
 - A. That's correct.
- Q. Okay. And then you incorporated on the costs -- did you incorporate anything additionally on the cost side of the units?

- A. In addition to what?
- Q. Well, so the model was -- the model only looks at the variable O&M costs of the unit, correct?
 - A. That's correct.

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- Q. Okay. So whether additional costs that you had to add on for the units in creating your JJL-1, 2, and 3?
- A. Yes, yes. Additional costs had to be added in that forecasted model.
 - O. And that's fixed O&M costs?
- A. Fixed costs, a lot of the other components that were part of the attachments.
- Q. Okay, okay. And then from those attachments then am I correct you projected the total expected net revenue from these units over the -- over the life of the PPA?

MR. ALEXANDER: Objection. Go ahead.

- A. What do you mean by net revenue?
- Q. Well, did you -- did you do the calculation to determine whether over the term of the PPA the expected revenues from the -- from the plants would -- how that expected revenue would compare to the costs of those plants are?
 - A. My attachments which you can see actually

are in the competitively sensitive version, I just project out what the total revenues would be and the total costs. I didn't come up with what the net margins were or anything like that.

- Q. Who did the net margin calculations? Do you know?
- A. I believe that's part of Mr. Ruberto's testimony.
 - Q. Okay, okay. So you came up with the numbers in JJ-1, 2, and 3, and you sent that data to Mr. Ruberto?
 - A. I provided him Attachments 1, 2, and 3 --
 - Q. Okay.

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- A. -- in its entirety.
- Q. Okay. And do you know if anybody reviewed the results of your modeling besides yourself?
 - A. I provided to Jay Ruberto. I believe he reviewed the results. I don't know if he had anyone else review the results.
- Q. Okay. So out -- so in addition to this modeling and then creating the JJL-1, 2, and 3, did you have any other role with regards to the PPA that's being proposed here?

What do you mean other role, any other 1 Α. 2 role? Were you otherwise involved in its -- in 3 Q. 4 creating the PPA? MR. ALEXANDER: Objection. 5 6 Α. I'm sorry. I'm sorry. Can you rephrase 7 the question? Just make sure I understand the 8 question. Outside of the modeling that you did and 9 Ο. the creation of JJL-1, 2, 3, did you have any other 10 role in, say, evaluating the PPA? 11 12 MR. ALEXANDER: Objection. 13 Α. What do you mean by evaluating the PPA? Did you do anything else with regards to 14 Q. the PPA? 15 16 MR. ALEXANDER: Objection. What do you mean by PPA? 17 18 Ο. The power purchase agreement -- the purchase power agreement that you referred to 19 20 earlier, which is the 15-year agreement that you modeled, correct? 21 2.2 Α. Can you repeat the question? 23 Ο. You modeled -- I believe you testified -earlier you testified for the term of the PPA that's 24

proposed in this proceeding, correct?

A. That's correct.

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- Q. Okay. So I am asking outside of the modeling that you did and your creation of JJL-1, 2, and 3, did you have any other role in evaluating this proposed PPA?
- A. I'm sorry, I am not understanding what you are asking me. What do you mean by evaluating the PPA?
- Q. Did you have -- well, take a step back.

 Did you do anything else with regards to the PPA?

 MR. ALEXANDER: Objection.
- A. I don't understand what you are asking me.
 - Q. Okay. You -- have you ever heard of the EDU team?
- 17 A. I have.
- Q. Are you a member of the EDU team?
- 19 A. I am not or I was not.
- Q. Have you had any communication with the EDU team?
- A. What do you mean by communications?
- Q. Have you ever talked to anyone on the EDU team about the proposed PPA in this proceeding?

A. Yes.

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- Q. Okay. And who?
- A. There was a number of people on the EDU team. I don't remember every communication I had with those people.
 - Q. Do you remember any of them?
- A. I don't recall the -- specifically who I talked to and what I talked to them about.
 - Q. Do you know what the EDU team is?
- 10 A. I know of the EDU team.
 - Q. Okay. Do you know what they were tasked with doing?
 - A. I don't know what their core responsibilities and what their main objective was,
 - Q. Do you know if the EDU team was focused on evaluating the proposed purchase power agreement that's at issue in this proceeding?
 - A. I don't know.
 - Q. You don't know. Okay. Do you know if Jay Ruberto was a member of the EDU team?
- A. I remember him being a member of the EDU team.
- Q. And did you have any communications with

Mr. Ruberto regarding the proposed purchase power agreement?

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- A. As I mentioned earlier, I provided him the attachments in my testimony.
 - Q. Did you do any modeling for the EDU team?
- A. Other than what I provided them with my attachments, no.
- Q. Did you provide them with any of your modeling input files?
- A. I don't recall if I gave them the actual input files. I don't recall.
 - Q. Okay. Do you recall discussing your modeling with anybody on the EDU team?
 - A. I don't recall.
 - MR. FISK: Can we go off for 5 minutes?

 (Recess taken.)
 - Q. We can go back. Thanks. Okay. So in your testimony starting at the bottom of page 1 where you talk about the purpose of your testimony, you say that the purpose is to provide and support the cost information related to the output proposed to be sold to the companies from FES's interests in the OVEC Davis-Besse, and Sammis plants, correct?
 - A. That's correct.

- Q. Okay. And is it your understanding that there that this proposed sale of the output is part of a proposed purchase power agreement?
 - A. Yes.

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- Q. Okay. And that would be -- that purchase power agreement would be between the companies, which is Ohio Edison, Cleveland Electric, and Toledo Edison on one hand and FES on the other hand?
 - A. Yes.
- Q. Okay. And did you have any role in negotiating that proposed purchase power agreement?
 - A. What do you mean negotiating?
- Q. In determining whether such an agreement should move forward, what the terms of it were, should be.
 - A. Yes.
 - Q. Okay. And what was your role?
- A. I was involved with some communications on some of the PPA terms.
 - Q. Okay. Which terms?
- A. I believe there was a discovery response on a term sheet or proposed term sheet for the proposed PPA and that's -- that's specifically what I am referring to.

1 You are referring to a discovery Ο. 2 response? 3 Α. Let me clarify. In the discovery 4 response I believe we've provided a proposed term 5 sheet associated with the proposed PPA. 6 0. Yes. 7 For that term sheet there was some 8 communications around that term sheet's creation. 9 Ο. Okay. And is that term sheet 10 confidential? 11 MR. ALEXANDER: Yes. I believe it is. 12 MR. FISK: So we'll kick that to the 13 afternoon. Did you have any other role in the 14 Q. negotiating --15 16 Α. No. 17 Q. -- the agreement? Okay. Did you have 18 any other role in evaluating whether the agreement should move forward? 19 20 I'm sorry. I don't understand. Α. 21 Evaluating, what do you mean evaluating? 2.2 Assessing whether it's reasonable for Q. 2.3 this agreement, proposed agreement, to move forward. Not -- not that I recall. 24 Α.

1 Okay. Were you -- are you aware as to Ο. 2 whether there was an FES team put together with 3 regards to this proposal? 4 Α. Yes. 5 Ο. Okay. And are you a member of that FES 6 team? 7 Α. I was. 8 Okay. And what was your -- what did you Q. do as a member of that FES team? 9 10 Primarily to discuss the term sheet Α. associated with the proposed PPA. 11 12 Q. Okay. MR. ALEXANDER: Could we go off? 13 (Discussion off the record.) 14 Okay. We're back on. Okay. So any 15 Q. other role as a member of the FES team? 16 17 Not that I recall. Α. 18 Q. Okay. And what is your understanding of what -- of what the FES team's purpose was? 19 20 What FES team? Α. 21 The one we were just discussing. Ο. 2.2 Okay. I'm sorry, could you repeat the Α. 23 question?

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Q.

What was the purpose of the FES team that

we were just discussing?

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- A. As I said before, primarily to discuss the term sheet for the proposed PPA.
- Q. Okay. Do you know who else was on the FES team?
- A. There was a number of people on the team.

 I don't recall every single individual member.
 - Q. Do you recall any of them?
 - A. I know Sharon Noewer was on the team.
- 10 Q. Okay.
- 11 A. A Nick Fernandez was on the team.
- 12 Q. Okay.
- 13 A. I don't remember -- I can't recall
 14 specifically who else was on the team.
- Q. But you believe other people besides those two were on the team?
- 17 A. There was, yes.
- Q. Okay. And did the team meet -- have meetings?
- 20 A. Yes.
- Q. Okay. Did you attend those meetings?
- 22 A. Not all the meetings.
- Q. Do you know approximately how many
- 24 meetings there were?

A. I don't recall.

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- Q. I mean, are we talking 2 or 10 or?
- A. I prefer not to guess on how many meetings there were.
 - Q. Okay. How many did you attend?
 - A. I don't recall how many I attended.
 - Q. Okay. Do you recall anything about these meetings?
 - A. I recall we had more than one meeting.
 - Q. Okay. Anything else about the meetings?
- 11 A. We discussed the term sheet for the 12 proposed PPA with the EDU team.
- Q. Okay. And when did you first find out about the proposed PPA?
 - A. I don't remember the specific date.
- Q. Approximately. I mean, are we talking
 May? June?
- 18 A. It was around the May -- April, May, June 19 time period, somewhere in there.
- Q. Okay. And do you recall who told you about it?
- 22 A. Yes.
- Q. And who?
- 24 A. A Kelley Mendenhall.

O. And who is that?

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- A. At that time Kelly worked for FirstEnergy

 Solutions.
 - Q. And what was his or her role?
 - A. Her role, she had a number of responsibilities, one of which was associated with FES strategy. She had retail back office responsibilities, and she had several other responsibilities as well.
 - Q. Okay. And what did she -- what did she tell you about the proposed PPA?
 - A. She shared with me a request provided by Jim Haney requesting some forecasted information associated with Sammis, Davis-Besse, and FES's share of OVEC.
 - Q. And who is Jim Haney?
 - A. I don't know Jim Haney's exact title.
 - Q. Do you know who he works for?
 - A. He works on -- on the utility side of FirstEnergy.
- Q. So what entity would that be?

 MR. ALEXANDER: Objection.
 - A. I don't know.
- Q. And who -- did someone assign you to

provide the modeling and projections that you provide in your testimony?

- A. I'm sorry, can you repeat the question?
- Q. Did someone assign you to work on doing the modeling that you have provided in this case?
 - A. What do you mean by assigned?
- Q. Did someone tell you this is -- here, we need you to do this?
- A. I was asked if I could get involved and provide some of the forecast information.
 - Q. Okay. Who asked you to do that?
- 12 A. Kelley Mendenhall through the request
 13 from Jim Haney.
 - Q. So someone from FES asked you.
- 15 A. No.

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- Q. I thought you said Ms. Mendenhall worked for FES.
- 18 A. Kelley works for FES, but the request was
 19 coming from Jim Haney.
- Q. Okay. But you don't report to either of those two people, right?
 - A. That's correct, I do not.
- Q. Did you ever discuss this request with your direct report, the, the person you report to?

A. Yes.

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- Q. Okay. And what did -- did he have any opinions as to whether you should work on this?
 - A. Not that I recall, no.
- Q. Okay, okay. You state in your testimony that part of your responsibilities of your job is to work -- I am reading from page 1, line 18, actively participate with FES and Generation business executive management and leadership teams on financial accounting and forecasting planning matters. What -- what sort of work have you done on forecasting planning matters?
- A. A lot of -- a lot of items when FES has needed to produce forecasts.
- Q. Okay. Do you -- so does FES produce forecasts of, say, the revenue from its generating units on a regular basis or?
 - A. Yes.
 - Q. And what -- how often?
 - A. It can vary greatly year to year.
- Q. Okay. So it's not -- it's not like on a consistent schedule; it's not like every six months they do it.
- A. No, not necessarily.

- Q. Do you recall the last time you were asked to project revenues from FES's generating units?
- A. Project it for this PPA, the proposed 5 PPA?
 - Q. Outside of this PPA.
 - A. For FES's internal management.
 - Q. Yes.
 - A. I don't recall the specific date. A couple of months ago.
 - Q. A couple of months ago. More recently than the projections that you provided in your testimony in this proceeding?
 - A. Yes.

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- Q. Okay. And what sort of -- what sort of projections were those that you did?
- MR. ALEXANDER: Objection. Relevance.
- Q. You can answer.
 - A. I'm sorry, can you repeat the question?
 - Q. What sort of projections did you do?
 - A. Projections --
- MR. ALEXANDER: Objection. Are you
 asking for a general category or the results of those
 forecasts?

MR. FISK: First, general category.

MR. ALEXANDER: Okay. The concern is these are internal FES proprietary forecasts, and I don't want to get too far down that path so I understand, I think, where you are getting. Let's just be cognizant of that.

MR. FISK: Sure. We can punt to the afternoon.

MR. ALEXANDER: Even in the afternoon I would have objection to non-PPA forecasts if you ask, but we can cross that bridge when we come to it.

MR. FISK: We can deal with that then.

- A. Make sure I clarify, your question was when -- what kind of forecasts has FES done since the PPA?
 - O. Yeah.

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- A. What the forecast is going to be for is the competitive business of the FirstEnergy Solutions for over the next couple of years.
 - Q. Okay. Any other projections?
 - A. No.
- Q. Okay. Have you modeled the projected operation of any of the Sammis plant or any of the Sammis units since your testimony in this proceeding?

A. No.

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- Q. Okay. And have you projected revenues or costs for any of the Sammis units since your testimony in this proceeding?
 - A. No.
- Q. Okay. Outside of this proceeding have you modeled the projected operation of any of the Sammis units any time in the past year?
 - A. Yes.
 - Q. Okay. And when was that?
- A. In the August timeframe we projected what the plants are doing not just -- I'm sorry, let me clarify. We forecasted all of FES's plants and their operations over -- over the near term.
 - Q. When you say near term, what -- how --
 - A. Typically four, four years out.
 - Q. Okay. And you did that in August?
 - A. That was in August, yes.
- Q. Okay. And you did that through the same model that you used in this proceeding?
- MR. ALEXANDER: Objection. Beyond the scope of his testimony. Go ahead.
- A. The -- let me clarify something I said earlier. In that same August timeframe we would have

also used this model to project out even longer term including the years in this PPA for, again, not just the Sammis, Davis-Besse, and FES's share of OVEC but all of FES's assets and generation plants.

Q. In separate modeling from what you presented in this proceeding?

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- A. No. It was using the same dispatch model.
 - Q. Same dispatch model but different runs.
 - A. Different -- different inputs were used.
- Q. Okay. And to your knowledge have any of those modeling runs been presented to any of the parties in this proceeding?
- A. My understanding is using FES's projections, they've been provided to the Sierra Club.

MR. FISK: Can we go off?

(Discussion off the record.)

- Q. We can go back on. So you're saying that there were different modeling runs using different inputs, but your belief is those were presented to the Sierra Club?
- A. My understanding was there was a subpoena by the Sierra Club requesting that information.

- Q. Okay. And outside of that, outside of whatever may have been produced in the response to that subpoena, were there any other modeling runs that you have done in the past year evaluating the projected revenues or operation of any of the FES units?
 - A. No.

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- Q. Okay. And when did you do the modeling that you presented in this proceeding in your testimony?
- A. I don't remember the specific dates, but I started to work on it right after I had the discussions with Kelley Mendenhall based on Jim Haney's request.
 - Q. May, June timeframe?
- A. Somewhere, I don't remember the specific timeframe, in that area.
- Q. Okay. So the August modeling runs that you referred to a couple of minutes ago were more recent than the ones that you presented in your testimony here?
- A. The August -- those August runs were not using Witness Rose's inputs. Those were using FES's inputs.

- Q. Okay. We'll talk about those in the afternoon. Those are probably confidential.
 - A. They are.

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- Q. Yes, so we will get to those. But the question was those were done more recently than the modeling that you did for the testimony you presented here today.
 - A. Yes.
- Q. Okay. And the near-term, four-year approximately forecasts that you referenced earlier, those were done more recently than your testimony in this proceeding?
- A. Those were done at around the same -same period of time, may have been a little bit later
 but it would have been in that same time period.
- Q. And did those use different inputs than what was -- what was used in modeling in this proceeding?
 - MR. ALEXANDER: Objection. Go ahead.
 - A. Which inputs?
- Q. Any of the inputs that you used in your -- in the four-year, near-term forecast different than the ones you used in the modeling you presented in your testimony.

MR. ALEXANDER: Objection. Go ahead.

A. Well, near term, remember, we've got different periods so this starts June 1 of 2016, so we are talking there would only be an overlap of a year and a half. Notwithstanding the forecast that would have been run around that time period — period of time would have been consistent assumptions used, FES assumptions, as we used in the longer-term projected run.

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Q. Okay. But the four-year forecast did not use Mr. Rose's assumptions.

MR. ALEXANDER: Objection. Go ahead.

- A. FES's -- the four-year projections were used for FES forecasting. They would have been based on FES's assumptions and inputs, so they did not use Judah Rose's inputs.
- Q. Okay. And to your knowledge have any of those four-year forecasts been produced to any of the parties in this proceeding?

MR. ALEXANDER: Objection both to form and relevance.

- A. What do you mean by -- can you repeat the question?
- MR. FISK: Can you read that question

back?

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(Record read.)

- A. Those forecasts, what do you mean by those forecasts? We are talking about a lot of forecasts here. I want to make sure we are clear.
- Q. The four-year, near-term forecasts that you mentioned in the last few minutes, were any of those forecasts presented to any of the parties in this proceeding?

MR. ALEXANDER: Same objection.

- A. Those -- clarify, those four-year forecasts that were run around the late August time period, somewhere in that area; is that correct?

 That's what you are asking me?
 - Q. Yes, yes.
 - A. Not that I am aware of, no.
- Q. Okay. All right. Any other modeling runs that you have done with regards to the Sammis, Davis-Besse, or OVEC units in the past year?
- A. We -- as I mentioned already, FES continually will look at its plants, reforecast all the plants, not just these plants. There would have been other forecasts run prior to us preparing the information that's laid out in my attachments. There

would have been forecasts that were done prior in the normal course of FES's business.

- Q. Within the past year.
- A. Within the past year, yes.
- Q. Were you involved in any of those?
- A. Yes.

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- Q. Okay. And did any of those use assumptions from Mr. Rose?
 - A. No.
 - Q. So did they all use FES assumptions?
- 11 A. When FES is forecasting, it is always
 12 going to use their own internal projections.
- Q. So then why -- why did you decide to use

 Mr. Rose's assumptions in the modeling for this

 proceeding when normally you forecast using FES's?
 - A. I didn't -- I didn't decide that.
 - Q. Do you know who did?
- 18 A. I was --
- MR. ALEXANDER: Objection.
- A. I don't know who decided to use it. I
 was asked to run the forecast using Mr. Rose's
 projections.
- Q. And who -- who -- who asked you to use
 Mr. Rose's projections?

73 1 That was a part of the request with Jim Α. 2 Haney. 3 Q. Okay. And were you involved in any 4 discussions regarding whether to use Mr. Rose's 5 assumptions as opposed to FES's? 6 Α. No. 7 MR. FISK: If we can go off for one 8 minute. (Discussion off the record.) 9 MR. ALEXANDER: At this point let's go 10 11 back on the record. And, OCC, if you would like to 12 go next. MR. SAUER: Thanks, Trevor. 13 14 15 CROSS-EXAMINATION 16 By Mr. Sauer: Good morning, Mr. Lisowski. 17 Q. 18 Α. Good morning. My name is Larry Sauer. I am an attorney 19 0. 20 with the Office of the Ohio Consumers' Counsel, and I 21 want to ask you a few questions about your testimony 2.2 this morning. 2.3 You were asked some questions regarding kind of the modeling process, and I wonder if I could 24

follow up with that a little bit. On page 2 of your testimony -- I'm sorry, page -- I think it was page 4 of your testimony actually. You were talking about revenue projections. In that dispatch model you are talking about, is that an internal FES model?

- A. No. It's a FirstEnergy Service Company model.
- Q. Okay. And is that a model that you control, or is it a model that is controlled out -- outside of your control?
 - A. What do you mean by control?
- Q. Do you have control over the inputs of that model?
 - A. Yes.

- Q. And someone who reports to you provides you those inputs?
 - A. Not necessarily.
- Q. If someone who does not report to you, who then -- what organization do they -- are they employed by?
- A. Well, for example, Mr. Rose provided inputs that were used in this model. Mr. Rose doesn't report to me.
- Q. Is there another example or is Mr. Rose

- the only example who is providing you inputs that does not report to you?
- A. The -- I mean, another example would be if FES has their own internal projections and assumptions that they use as the inputs, it would be provided by the -- by the FES team.
- Q. And did that occur in the modeling runs that you did for this case?
- A. When you say this case, are you referring to the model output that was used in my attachments of my testimony?
 - Q. Yes, sir.

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- A. That did not use FES's projections for energy as my testimony discusses.
 - Q. So then a -- then for those inputs they were provided by someone who reports to you then?

 MR. ALEXANDER: Okay. Which inputs are
- MR. ALEXANDER: Okay. Which inputs are you referring to?
 - MR. SAUER: The ones that he said sometimes could be provided by FES.
- A. I don't know if I understand your question.
- Q. Well, okay. You got inputs from Mr. Rose and what were those -- those inputs specifically?

Was that the energy price forecast?

- A. That was one of the inputs that Mr. Rose provided.
 - Q. What other inputs did Mr. Rose provide?
- A. As it talks about on rows 22 and 23 on page 4 of my testimony, he provided the coal, coal transportation prices, emission allowances, and as we talked earlier, Mr. Rose also provided the carbon assumptions and inputs.
- Q. And for those specific inputs, did you get those from Mr. Rose on -- on a single occasion?
- A. What do you mean received on a single occasion?
- Q. Did Mr. Rose give you more than one input for his energy price forecast?
- A. He provided me one -- no. He provided me one set of assumptions to be used in the modeling.

MR. SAUER: Trevor, to inquire into the assumptions themselves, are we going to be getting into the confidential portion of the?

MR. ALEXANDER: Yes. If you are going to ask what the assumptions were and dollar amounts and things, then, yes, that would be confidential.

MR. SAUER: Okay. I will hold off on

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- Q. You said -- you are saying Mr. Rose gave you one set of assumptions, Mr. Lisowski. Was there discussion over the assumptions?
- A. I guess what do you mean by was there discussions on the assumptions?
- Q. Was there any back and forth between Mr. Rose and the company to fine-tune the assumptions or modify the assumptions in any way?
 - A. I don't know.
 - O. Who would know?
 - A. I don't know.
- Q. When Mr. Rose gave you the assumptions, was it on a document that he provided to you?
- A. I don't know how else he would have gotten it to me. I mean.
- Q. And did you receive more than one of those documents?
- A. Like I said before, he provided me one set of assumptions to be used in the dispatch model.
- Q. And did the one set of assumptions cover energy price forecasts as well as the other items in your testimony that you say he provided you?
 - A. We just -- I just answered that question

- 2 minutes ago, if that, that he provided the energy as its laid out in my testimony, the coal, coal transportation, emission allowance, and carbon price assumptions.
- Q. And that was all in one communication he provided you those assumptions for all the inputs you needed.
- $\hbox{A.} \quad \hbox{It was provided all as one set of} \\$ $\hbox{assumptions.}$
- Q. And you put that into your model -
 MR. ALEXANDER: Let's go off the record

 for just a moment.

13 (Discussion off the record.)

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MR. ALEXANDER: With that let's go back on. I'm sorry, Larry.

MR. SAUER: All right. Thank you,

Trevor.

- Q. (By Mr. Sauer) With the set of assumptions that Mr. Rose gave you, you put those into your model, and you performed a run; is that correct?
- A. That's correct.
 - Q. And did that conclude your analysis then?

 MR. ALEXANDER: Objection. Go ahead.

- A. What do you mean by conclude my analysis?
- Q. After you put Mr. Rose's inputs and you performed a run, is that the result of the attachments to your -- did the output of that modeling run go into your testimony?
- A. The outputs from the model were used in the attachments of my testimony.
- Q. And did you have to run that model more times -- more times than just one time to get the final results?
 - A. No.
- Q. You said earlier that -- I thought I heard you say you typically forecast out four years?

 MR. ALEXANDER: Objection.
 - O. Is that true?
- 16 A. No.

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- 17 Q. No?
- 18 A. I said a few different things.
- Q. In this case you've done what, a 15-year forecast?
 - A. Are we talking about FES's internal projections, or are you talking about the proposed PPA -- the forecast in my attachments?
- Q. The forecast in your attachments.

- A. The forecast in my attachments is a 15-year starting June 1 of 2016.
- Q. And Mr. Rose gave you the assumptions that covered all 15 years that were projected.
 - A. That's correct.

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- Q. Okay. And were there other inputs from, for example, OVEC? Did they provide you information in order to include inputs for your model?
- A. For the forecast used in my attachments, if you look at page 4, starting on row 1, discusses what OVEC provided me and which I used.
- Q. So they provided you a 20-year forecast, and you used a portion of that forecast from OVEC to include your 15-year forecast?
 - A. Yes.
- Q. You did not have to modify the OVEC forecast in any way?
- A. I had to incorporate a carbon assumption that I received from Witness Rose. That was the only thing I had to add on to what OVEC had provided.
- Q. And were there inputs provided in terms of plant operations for Sammis and Davis-Besse?
 - A. What do you mean by plant operations?
 - Q. Were you given information regarding

outages, planned outages or forced outages?

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- A. Again, if you look at my testimony, for example, page 4, row 14, it talks about operating parameters and it gives several examples of the operating parameters that are used in the modeling software.
 - Q. And who provided those inputs to you?
- A. If you look at page 3 of my testimony, page -- or line 8 -- excuse me, page 3, line 18 starting and 19, it talks about that information is coming from our fossil nuclear operations.
 - Q. And is that an FES organization?
- A. What do you mean is that an FES organization?
 - Q. Is that an -- under what umbrella is that organization? Under what corporate umbrella would that organization fall?
 - A. We would consider them to be part of our FE Generation organization.
 - Q. And is that what they report up to the organization to an FES officer, or would they report up through a shared services officer or how does that corporate structure --
 - A. I cut you off. Can you repeat the

	8
1	question?
2	Q. Yeah. I am just trying to understand
3	what organization they report to. Are they reporting
4	to like an officer of FES?
5	A. No, they do not.
6	Q. Okay. A shared services officer?
7	A. Yes.
8	MR. SAUER: Can we go off the record for
9	just a minute?
10	MR. ALEXANDER: Sure.
11	(Discussion off the record.)
12	MR. ALEXANDER: So let's go back on the
13	record. Go ahead.
14	MR. SAUER: Mr. Lisowski, I have no
15	further questions for you this morning on the public
16	portion of the deposition. Thank you for your time.
17	MR. ALEXANDER: Mr. Oliker, would you
18	like to go next?

MR. OLIKER: Yes, I would and I need to
amend my prior statement. I have a range of 20 to 45
minutes of questions.

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CROSS-EXAMINATION

By Mr. Oliker:

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- Q. Good morning, Mr. Lisowski. My name is Joe Oliker, and I represent IGS Energy. I recognize we are on the phone. I want to make sure you can hear me okay.
 - A. I can. Good morning to you.
- Q. Great. And if at any time you can't understand me or I talk too fast, just let me know and I will try to slow down and try to be more clear.
 - A. I appreciate that. I will.
- Q. Just want to make sure that I heard some of your answers to it, to Mr. Fisk earlier, just -- and I apologize if I repeat anything.

But you talk about projections that were used in the model as scenario -- and we will start broadly, that there were some projections that were related to information provided by FirstEnergy Solutions and some were provided by Mr. Rose; is that correct?

- A. That's correct.
- Q. And do I understand correctly that the coal price forecast for the FES-specific generating units, that was actually FirstEnergy Solution's

information, correct?

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- A. I'm sorry, can you repeat that question?
- Q. The forecast types of coal, was that provided by FirstEnergy Solutions or Mr. Rose?
- A. No. If you look at page 4 of my testimony on -- starting on row 22, you'll see that that -- the coal, coal transportation, emission allowances, and as I mentioned earlier, carbon were all provided by Witness Rose.
- Q. Okay. So just -- that's helpful. So if I am looking at the cost of production at the Sammis plant, the fuel price, that was provided by Mr. Rose.
 - A. That's correct.
 - O. Is that correct?
 - A. That's correct.
- Q. Okay. And are you familiar with the fuel requirements of Sammis and the OVEC units?
 - A. What do you mean by fuel requirements?
 - Q. Like are you involved at all in the stockpile of the Sammis plant for coal?
- A. I don't understand. Like the logistics of delivery of coal?
 - Q. Like, for example, do you know -- and you don't have to answer this in the public record, but

do you know how many days the existing stockpile at Sammis could provide generation output without additional inventory addition?

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MR. ALEXANDER: Objection as to beyond the scope of his testimony. Go ahead if you know.

- A. All I'll say is Sammis does have a targeted amount of coal and inventory that they are tracking towards and that they are attempting to achieve. I don't know exactly what their target is and where they stand, but they do track to have a certain amount of coal in stock at any given day of the year.
- Q. And be careful not to provide an actual amount but do you know the current level of the stockpile at Sammis?

MR. ALEXANDER: Objection. This is beyond the scope of his testimony again. And if you know the answer, you can answer if you know, which was his question.

- A. Yeah. I don't know.
- Q. Okay. Would you agree that there are currently transportation constraints that are limiting coal deliveries to plants in the Midwest?

 MR. ALEXANDER: Objection. Again, this

is beyond the scope.

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- A. I don't know. As I mentioned, I am not involved in the logistics of how we get coal to our plants.
- Q. Do you know that such transportation constraints existed?

MR. ALEXANDER: Objection.

- Q. If you don't know, that's fine.
- A. No. I'm not aware of that.
- Q. Okay. Changing gears a little bit, have you been involved in FirstEnergy Solutions' regulatory activities in the past?
 - A. I'm sorry, could you repeat that question?
- Q. For example, in this case that you are currently testifying in is -- it's involving regulatory activity of FirstEnergy and FirstEnergy Solutions. In the past have you ever operated in this capacity?
- MR. ALEXANDER: Objection to the compound question and the subject in the question.
- A. Can you separate that question because you did ask me a couple of different questions in there.

- Q. Sure. Have you ever testified before?
- A. No.

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- Q. Have you been involved in any of FirstEnergy's prior regulatory cases?
 - A. No.
 - Q. Have you been involved in any of the FirstEnergy Solutions' regulatory cases?
 - A. No.
 - Q. Have you monitored FirstEnergy Solutions' regulatory activity?
 - A. What do you mean by monitor?
 - Q. For example, FirstEnergy Solutions is typically an intervenor in the various electric security plans of other electric distribution utilities in Ohio. Have you stayed abreast of FirstEnergy's activities in those cases?
 - A. No, I haven't.
 - Q. So that being said have you reviewed any of the testimony that FirstEnergy Solutions has submitted in past cases?
 - A. No.
- Q. Earlier you mentioned the business -- I
 think it was called the business development group
 within FirstEnergy Service Corp.; is that correct?

- A. Business development is in FirstEnergy

 Service Company.

 Q. Okay. It's called business development?

 A. That department is called business
 - A. That department is called business development, that's correct.
 - Q. Okay. Who is the leader of that group?
 - A. Dave Pinter.
 - Q. How do you spell his last name?
 - A. P-I-N-T-E-R.

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- Q. Okay. Thank you. And could you describe
 the general organizational structure of that group.

 Are there any other people that are the leader of
 that group, direct reports to David Pinter?
- MR. ALEXANDER: Objection to form. Could

 I have that question reread, please.
- MR. OLIKER: If you would like, Trevor, I can restate it.
- MR. ALEXANDER: I think you may have misspoken there.
- Q. Yeah. Is it David Pinter you said is the leader of that group?
- A. That's correct.
 - O. And what is his title?
- A. He's executive director.

- 1 Do you know how many direct reports there Ο. 2 are to David Pinter? 3 Α. No. 4 0. Do you know of any direct reports to 5 David Pinter? I don't know who his direct reports are. 6 7 Q. Okay. And is there anybody that would be 8 the second in command in that group or something of that nature? 9 10 Α. I don't know. 11 Okay. Regarding the model we have been Ο. 12 discussing, and I'm sorry if you've already answered this, was the model constructed in-house or by a 13 14 third party? MR. OLIKER: Trevor, feel free to 15 16 interrupt if this is proprietary. 17 It was developed internally. Α. 18 Q. And I think you mentioned the model has always been used since you have been with the 19 20 company. Do you know exactly when the model was
 - I don't know. Α.
 - Do you know how often it is updated? Q.
- No, I don't. 24 Α.

built?

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90 Q. 1 Okay. 2 MR. OLIKER: And, again, Trevor, just 3 interrupt me if I cross over. 4 0. Is the model a constrained dispatch 5 model? 6 Α. I'm sorry, can you repeat that? 7 Ο. Is the model a constrained dispatch 8 model? What do you mean by it's a constrained 9 Α. dispatch, whether it's a constrained dispatch model? 10 11 Does the model include transmission Ο. 12 constrained and locational dispatch? 13 Α. I don't know. And does the model provide a projection 14 Q. of dispatch on an hourly basis? 15 16 MR. ALEXANDER: At this point let's move 17 this to the confidential portion later. 18 MR. OLIKER: Sure. That's fine. Has it always been your role to 19 Ο. understand the assumptions of the model? Let me 20

When did it specifically become your role to understand the assumptions of the model?

state that again. That was overly broad.

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A. Primarily when I took over my current

position.

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- O. And that was when?
- A. If you look on page 1 of my testimony on lines 14 and 15, that was in 2012.
 - Q. Prior to that period did you work with FirstEnergy's model at all?
 - A. I have.
 - Q. Okay. Earlier you mentioned that carbon projections were provided to you by Judah Rose,
 - A. That's correct.
- Q. Has FirstEnergy Solutions modeled the impact of carbon regulations?
 - A. Yes.
- Q. We can talk about that more in the confidential period but that wasn't provided to any party in discovery, was it?
 - MR. ALEXANDER: Objection. What do you mean by "it"?
- Q. Would you agree that FirstEnergy and
 FirstEnergy Solutions have not provided that
 information to any party in discovery?
- MR. ALEXANDER: Objection. Again, what information?

MR. OLIKER: The projections.

- Q. Does the witness understand the question?
- A. No, I don't.

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- Q. Has FirstEnergy or FirstEnergy Solutions provided to the parties in discovery a projection of the impact of carbon regulations that was performed by FirstEnergy Solutions?
- MR. ALEXANDER: Objection. You said

 FirstEnergy Solutions. Did you mean Company Witness

 Rose?
- MR. OLIKER: No. I meant FirstEnergy Solutions.
 - MR. ALEXANDER: Objection. Go ahead and answer with that clarification.
 - A. Make sure I understand your question, can you repeat it one more time, or can you repeat it back?
 - Q. Sure. Let's make it real easy. We talked about the carbon projections in this model were provided by Judah Rose, and you indicated that FirstEnergy Solutions had modeled its own potential impact of carbon prices. Now, FirstEnergy or FirstEnergy Solutions never provided that FES projection to other parties.

I don't know. I don't know if that has 1 Α. 2 been. 3 MR. ALEXANDER: Hold on. Objection to 4 that last question. Are you referring -- you said 5 FirstEnergy or FirstEnergy Solutions. Are you 6 referring now at this point to discovery responses 7 from the companies in this case or FirstEnergy 8 Solutions' response to the Sierra Club topics 1 and 2? 9 10 MR. OLIKER: Both. 11 MR. FISK: His was asked for in 6, carbon 12 regulation impact, if there is an analysis of carbon regulation impacts. That's topic 6 which was ordered 13 to --14 15 MR. ALEXANDER: Incorporated into topics 16 Thank you for the clarification. So, I'm 1 and 2. 17 sorry, Mr. Oliker, could you run that back one more 18 time? 19 MR. OLIKER: Sure. 20 Did FES produce in discovery, either 0. 21 FirstEnergy or the parties in this case, its own

A. My response is I don't know.

projection of carbon price impact?

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Q. But you know that FES has done such a

projection.

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- A. They have.
- Q. Okay.

MR. OLIKER: Trevor, we would appreciate that being provided. It's been requested in discovery by I believe IGS in discovery, and I think it's also responsive to 1 and 2 in the subpoena.

MR. FISK: Yeah.

MR. ALEXANDER: I am not aware of that from IGS, but you can take that up with FirstEnergy Solutions and Mr. Hayden.

MR. OLIKER: Okay. This is just my notice that it will either come up now or I will move to compel further at the next prehearing conference.

MR. ALEXANDER: Again, you can take it up with Mr. Hayden.

MR. OLIKER: Okay.

- Q. Now, let's talk about some of the other assumptions in the model. Do you know whether the model included an assumption for energy efficiency in each year over the next 15 years? For example, did the model forecast reduced requirements from the grid?
 - A. The model forecasts how a plant is going

to operate based on the inputs. Energy efficiency has no impact on how a plant is going to generate based on the inputs.

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- Q. Okay. Is one of the inputs demand of the grid?
 - A. What do you mean by demand of the grid?
- Q. For example, does the model include an assumption of total demand within PJM for each hour?
- A. That -- that's not a direct input into the model but I don't know if that's an input into one of the other relevant assumptions associated with an actual input into the model.
- Q. Like what other assumption could possibly incorporate the demand within PJM?
- A. I will give you one example is does that have an impact on energy prices. Energy prices, as I previously discussed, are an input into the model.
- Q. Okay. So the way the model works is so long as variable costs is below the energy price, it assumes that there are outputs in the model.
- A. That is a very oversimplified way to describe the model but that is correct.
 - Q. Okay. Do you know whether -MR. OLIKER: Trevor, feel free to

interrupt if this is proprietary.

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Q. Does the model include a forecast of transmission upgrades within PJM for each year?

MR. ALEXANDER: Let's save that level of detail for the confidential section.

MR. OLIKER: Okay.

- Q. Does -- and I think this question probably will be confidential as well, but does the model assume a level of generation developed within PJM?
- A. I prefer we talk about all these during the confidential.
- Q. Okay. That's fine. Your title says you are in charge of technical accounting; is that correct?
- A. Not in my current role but previously, that's correct.
 - Q. Okay. Which individuals report directly to you?
 - A. When I was in technical accounting or in my current position?
 - Q. In your current position.
 - A. You asked me who reports to me?
- 24 Q. Yes.

- A. I have -- I have a manager of accounting,
 I have an administrative assistant, and I have a
 couple managers and director associated with the
 accounting forecasting budgeting associated with our
 generation plants.
- Q. Can you identify those individuals' names?
 - A. Is that really relevant?
 - Q. Yes.
 - A. Okay.

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- MR. ALEXANDER: Objection to relevance.

 Go ahead and answer.
- 13 A. All right. My administrative assistant's
 14 name is Deborah Flowers. My manager of accounting is
 15 Mike Falen. The directors and managers of business
 16 services, their names are Robin Zablocky, Darrell
 17 Converse, and Jackie Manalaris.
 - Q. Okay. Has Sharon Noewer ever reported to you?
- 20 A. No.
- Q. How about Roger Ruff?
- 22 A. No.
- Q. Do you know those people?

 MR. ALEXANDER: Objection, relevance.

- A. Do I know them? What do you mean do I know them?
 - Q. Do you work with those people on a normal basis?
 - A. No.

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- Q. Going back to your accounting background, do you know what an impairment is?
 - A. Yes.
- Q. Do you agree that an impairment is a writeoff in value of an asset in order to bring the value of the asset on the books in line with the estimated market value?
- A. It's not completely the correct definition under accounting rules but generally speaking, that's correct.
- Q. Can you provide the correct definition, please.
- A. So there's many different types of impairments of assets that you could have. Generally speaking it's when the realizable value of an asset is less than the carrying value of that asset on the books in accordance with US GAAP.
- Q. Okay. And are you familiar with Accounting Standard Codification 980 or also known as

ASC 980?

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- A. I don't memorize all the accounting rules and numbers.
- Q. Okay. Would you agree that when certain regulatory events happen, it triggers a requirement that a company perform an impairment analysis?
- A. Depending on the regulatory decision, that's possible.
- Q. Okay. And I don't think this is confidential, but do you know whether FES has undertaken an impairment analysis regarding Sammis, Clifty Creek, Kyger Creek, or Davis-Besse in the last three years?
- A. I believe that's confidential. I have no problem answering that question, but I would rather it wait until the confidential section.
- Q. Okay. That's fine. Likewise, the results of that analysis would be confidential too, right?
 - A. Absolutely.
- Q. Okay. Are you familiar -- are you familiar with the term installed capacity?
 - A. I don't know what that means.
 - Q. What about ICAP?

A. I've heard that term.

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- Q. Okay. Funny how people know the acronym rather than the real words sometimes. Are you familiar with PJM's rules related to ICAP or UCAP, or unforced capacity?
- A. I don't know all the rules associated with that.
- Q. Do you know any of them?

 MR. ALEXANDER: Objection. We are
 getting pretty far afield of his testimony. Go ahead
 and answer, if you can.
- A. I know ICAP is what determines the capacity revenues that you could -- that a generation station could earn if they cleared the capacity auction.
- Q. Do you mean UCAP, Mr. Lisowski? Isn't it true that -- I'm sorry. Go ahead. I didn't mean to interrupt you.
 - A. No, go ahead.
- Q. Isn't it true that PJM uses unforced capacity to determine the amount of capacity compensation it can receive?
- A. You are correct. This gets into the competitively sensitive area but in my workpapers you

will see that I use the UCAP of each of the stations.

- Q. Okay. Are you -- are you familiar with how those unforced capacity levels were determined? And I don't want you to divulge competitive information. But are you familiar with the process of determining a UCAP level?
 - A. I am not.

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- Q. Who would have performed that calculation for purposes of your workpapers?
 - A. FES provided them.
- MR. OLIKER: I'm sorry, did somebody else speak?
 - MR. ALEXANDER: If everyone could mute their lines, please.
 - Q. Mr. Lisowski, do you know who provided that calculation within FES?
 - A. The specific individual, no.
 - Q. So if I were to ask you questions in the confidential section about the UCAP levels and how that may have been determined, would you be able to answer those questions?
 - A. Like I said before, those were provided to me by the FES so, no.
 - Q. Do you know if there -- which witness

would be the appropriate witness for asking those questions to, if you know?

A. I don't know.

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MR. ALEXANDER: Let's go off the record.

(Discussion off the record.)

MR. ALEXANDER: So let's go back on.

Q. This may be a question better for Mr. Fisk later but is FirstEnergy Solutions offering a witness to discuss the unforced capacity levels that are contained in the model?

MR. ALEXANDER: Objection.

MR. OLIKER: Trevor, let's go off the record. Let's talk about it there.

MR. ALEXANDER: Let's go off the record.

(Discussion off the record.)

- Q. Mr. Lisowski, before we were talking about PJM's rules as they relate to unforced capacity and installed capacity. Have you read any of the PJM manuals?
 - A. No.
- Q. Do you know what the definition of nominal capacity is?
 - A. No.
 - Q. So in that regard you don't know if

nominal capacity and installed capacity are
different?

A. No.

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- Q. Do you know the formula for determining an unforced capacity level?
 - A. No.
- Q. Do you know the installed capacity level of Sammis or ICAP level?

MR. ALEXANDER: Objection, compound.

- A. Can you repeat the question?
- Q. Do you know Sammis's ICAP level?
- A. I don't.
- Q. Are you familiar with the impact of higher environmental controls on Sammis from an output perspective?
 - A. What do you mean by impact?
- Q. In other words, is it your understanding that the installation of environmental controls has reduced the total potential output of Sammis?
 - A. I'm sorry, can you repeat the question?
 - Q. Maybe break it out, are you familiar with the term parasitic load?
- 23 A. No.
- Q. Do you know that Sammis has environmental

Jason Lisowski 104 controls installed? 1 2 Α. Yes. 3 Ο. Do you know whether those environmental 4 controls are powered by the output of Sammis? 5 Α. I don't know. 6 Ο. And I apologize if I already said this, 7 but you said you don't know how PJM determines an 8 unforced capacity level? I don't know. 9 Α. Do you know what a forced outage is? 10 Q. 11 In what context? Α. 12 In the context of, say, the Sammis plant. Q. I'm sorry, could you rephrase the 13 Α. 14 question? Can you -- would you agree that a 15 Ο. 16 plant -- a generation plant can go offline from time 17 to time? 18 Α. Yes. Would you agree that sometimes a plant 19 Ο. goes offline at an un -- unanticipated time? 20 21 Α. Yes. 2.2 Would you agree that's called a forced Q.

Sorry. Did you answer the question?

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outage?

- A. No, no. I want to make sure I understand. It's a plant that's coming offline unanticipated would be called a forced outage. I mean, are you calling it a forced outage, or is it a defined term in the PJM manual?
 - Q. I am asking what is your understanding.
- A. My understanding is if a plant came off in an unplanned manner, it could be considered a forced outage.
- Q. Okay. And is it your understanding that a plant's forced outage rate impacts the amount of capacity compensation you can receive?
 - A. Yes.

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- Q. Did you evaluate historical forced outage rates of Sammis, Davis-Besse, Kyger Creek, and Clifty Creek?
 - A. Evaluated how?
 - Q. Did you look at it?
 - A. I guess what do you mean by looked at it?
- Q. Well, for example, you have got a model here. Would you agree that the model assumes a level of unforced capacity for each of the generating plants?
- 24 A. Yes.

- Q. And you did not personally evaluate whether those numbers were reasonable, correct?
- A. I was provided those operating parameters from the fossil and nuclear operations.
- Q. And you did not undertake any analysis to determine if those were reasonable, correct?
 - A. That's correct.

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- Q. And I'm sorry if you already answered this and I forgot, but did you review the historical forced outage rate for Sammis for the past six years?
 - A. I don't recall.
- Q. And would your answer be the same for Clifty Creek and Kyger Creek?
 - A. I don't recall.
- Q. Would your answer be the same for Davis-Besse?
- 17 A. I don't recall.
 - Q. Okay. A few more questions. Are you familiar with the PJM capacity performance proposal?
 - A. How would you define familiar?
 - Q. Maybe you can correct my question and just tell me what is your understanding of PJM's capacity performance proposal.
- A. I've seen the news articles about it

coming out but that's about the extent to it.

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ahead.

- Q. Did you read about the penalties in the performance proposal?
- A. I am not familiar with the details of them.
- Q. So would you agree that your model does not assume that Sammis, Clifty Creek, or Kyger Creek are forced to pay penalties for not performing?

 MR. ALEXANDER: Objection to form. Go
- A. My model takes the FES projected amount of megawatts that are available to clear the capacity auction with the capacity revenue forecast provided by Mr. Rose. That was my forecast for capacity revenue.
- Q. Okay. So let's break it down. There's an unforced capacity level assumed in the model, correct?
- A. Well, what -- which model are we talking about?
- Q. Talking about the model that was used in the cash flow projections in your testimony.
- A. I'm sorry, can you repeat the question?

 Someone chimed in and you got cut off.

MR. ALEXANDER: Actually before you do 1 2 that, Mr. Oliker, could whoever chimed in identify 3 themselves, please? 4 MS. BRADY: Hi. This is Cynthia Brady 5 from Exelon. 6 MR. ALEXANDER: Okay. Good morning. 7 Go ahead, Mr. Oliker. 8 Sure. Okay. Let's take it one step at a 0. time. You agree your testimony has a projection of 9 the cash flow of four FES plants. 10 11 Α. My projections are not a cash flow 12 projection. 13 Ο. Okay. Would you agree it compares the costs and revenues associated with those plants? 14 Which plants are we talking about? 15 Α. 16 Would you agree there are four plants 0. that are the subject of this application, Clifty 17 18 Creek, Kyger Creek, Davis-Besse, and Sammis? We didn't project out the OVEC plants 19 Α.

A. We didn't project out the OVEC plants separately.

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- Q. Okay. But would you agree your testimony provides an analysis of whether or not the RRS will be a charge or a credit in each year?
 - A. I did not do any projections related to

109 1 the RRS. 2 Okay. What would you call your Q. 3 testimony, Mr. Lisowski? MR. ALEXANDER: Argumentative. 4 5 Objection, argumentative. 6 MR. OLIKER: I am just asking what did he 7 do. If he is not going to answer my questions, this 8 is going to take hours. MR. ALEXANDER: I haven't heard a 9 10 question pending so could you please reask your 11 question? 12 What is your testimony, Mr. Lisowski? Ο. 13 What did it do? MR. ALEXANDER: Objection, argumentative. 14 What is his testimony? 15 16 MR. OLIKER: I am asking him at a high 17 level. 18 MR. ALEXANDER: If you can answer that question, go ahead. 19 20 My testimony on pages 1 and 2 lay out 21 what my testimony is referring to. 2.2 Okay. So you projected the output of Q. 23 four plants, correct?

Α.

No.

- Q. Okay. So it says, "I then calculate the projected revenues which will be created by the output of the plants." Is that not your testimony?
 - A. That is my testimony.

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- Q. Okay. Would you agree that your projected revenues include an assumption of unforced outage rate?
- A. My forecast that I've laid out in my testimony does include an assumption for operating parameters that dictate how the plants will perform.
- Q. And one of those operating parameters is unforced outage rates, correct?
 - A. That's correct.
- Q. Okay. So in every instance where the unforced outage rate where the number is greater than zero it means this is a projection that FirstEnergy Solutions' plants may go offline at an unanticipated time; is that correct?
 - A. That's correct.
- Q. So you would agree that in the event there are penalties for going offline for an unforced outage, those would not be picked up in your analysis.
- A. That's correct.

- Q. Thank you. Are you familiar with the date the model was run?
- A. I don't know the specific date. I don't recall.
 - Q. Do you know the month?
 - A. It would have been in the May, June, July time period of this year.
 - Q. You don't know anything more specific on that?
 - A. I don't remember the specific date that we pushed the button to get the model output.
 - Q. Okay. Just a few more questions. You talked about the price assumptions provided by Judah Rose. Were you involved at all in the retention of Judah Rose?
 - A. No.
 - Q. Do you know whether any assumptions were provided to Judah Rose?
 - A. No.

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- MR. OLIKER: Can I have just a minute? I think I might be done.
- 22 (Discussion off the record.)
- Q. Mr. Lisowski, just one or two more questions. We talked a little bit about projections

of the impact of regulations on CO-2. How familiar are you with proposed environmental regulations?

- A. Not -- not familiar at all.
- Q. Are you familiar with the term called environmental dispatch?
 - A. No.

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- Q. Would you agree that the model does not incorporate any potential constraints on carbon-intensive resources' ability to dispatch besides a carbon impact?
- MR. ALEXANDER: Could I have that question reread, please?
- 13 (Record read.)
- MR. ALEXANDER: Objection to form. Yeah.

 Could you repeat the question?
- Q. Sure. Would you agree the model does not contain any restraints on carbon-intensive resources besides a carbon impact?
 - A. I don't understand that question.
 - Q. Okay. You agree the model has a projection of costs of CO-2.
- 22 A. Yes.
- Q. Okay. There are no other carbon-related restrictions in the model, correct?

- A. What do you mean by restrictions?
- Q. For example, the model doesn't impose any artificial limitations on the amount of full requirement resources through dispatch, correct?
 - A. I don't know.

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- Q. Do you know who would be able to answer that question?
 - A. I don't know.

MR. OLIKER: Okay. I think that's all the questions I have in the public record. Thank you, Mr. Lisowski.

MR. ALEXANDER: Okay. Would -- I believe OMA, Ms. Hussey, would you like to go next?

MS. HUSSEY: I would but my questions for the public record have already been taken care of so thank you for the opportunity though.

MR. ALEXANDER: Okay. Ms. Fleisher?

MS. FLEISHER: Sure, I'll go ahead.

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CROSS-EXAMINATION

By Ms. Fleisher:

Q. Mr. Lisowski, my name is Madeline

Fleisher. I represent the Environmental Law & Policy

Center. Thank you for being here today -- or there

rather.

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You mentioned before that you work with this FES model on a somewhat regular basis; is that correct?

- A. That's correct.
- Q. And can you provide me a couple of examples of other situations in which you would be using this model?
- A. Really any time FES has needed to use to have a long-term forecast for its generation stations.
- Q. Okay. Have you used this model in connection with any other proposed or finalized purchase power agreement?
- A. FES doesn't have any other proposed purchase power agreements associated with its generation assets, so no.
- Q. Okay. And just to make sure we're clear on the record, no prior purchase power agreements that are no longer in effect.

MR. ALEXANDER: Objection to form.

- A. Could you repeat the question?
- Q. Sure. I am happy to clarify it. Are you aware of any prior purchase power agreements with

respect to which FES has used this model?

A. I don't know.

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- Q. Okay. And in the other context in which you've used the model, do you -- have you ever tried alternative assumptions, inputs into the model to see if you get different results?
- A. I guess under what -- under what circumstances?
- Q. Any circumstances in which you are relying on the model.
- A. Are you referring to specifically the attachments in my testimony, or are you saying just in the normal course of FES's business?
- Q. I'm saying -- maybe it would help if we talk about a specific -- can you give me just one specific example of a time when you would rely on the model?
 - A. In this pending PPA.
 - O. Besides this PPA.
- A. If we were going to look at one plant in particular, if we wanted to look at how that plant was performing based on our assumptions, it could be any of FES plants, we could run this to see how it was performing from a financial perspective in a

long-term forecast.

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- Q. Are there any business decisions where you use this model?
 - A. Yes.
- Q. Okay. Can you give me an example of one of those?
- A. Could be a lot of different things from FES. It could be any type of strategic decision associated with the generation plants.
- Q. Okay. If your -- putting aside this purchase power agreement for one second, if you're using this model as you say you have in making a -- some other business decision, would you just do one run of the model?
- A. I mean, that's a -- I mean, that's such a vague question. It depends on so many factors. It depends on, you know, what the business decision was related to. It depends on the asset. It's -- it just depends on so many factors but I would say --
- Q. Have you ever -- have you ever in making a business decision done more than one run of this model?
 - A. I don't recall.
 - Q. You don't recall.

- A. I can't think of an example.
- Q. Have you ever -- have you ever put different assumptions into the model?
 - A. Different from what?

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- Q. From -- have you ever run the model twice in any situation using different assumptions to see how it came out?
 - A. Not that I recall.
- Q. So for every -- every time you've used the model that you can recall, you have input a single set of assumptions, come out with a result, and that's the result you've used.
- A. In every case that I can recall, that's correct.
- Q. Can you recall any other instances in which you've accepted input for the model from a third party?
 - A. Not that I recall.
- Q. And when you received the inputs from Mr. Rose, you said that you accepted those and plugged them into the model; is that correct?
- A. Into the model that was used for this -for my testimony, that's correct.
 - Q. Okay. Is there some other model that you

would have plugged them into?

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- A. I'm sorry. I am not following you. Can you repeat the question?
- Q. Sorry. You seem to be specific that it was into the model that you used for your testimony.

 I just was wondering if there is some other model that you had in mind.
- A. No. We -- we have one model that -- that we use for long-term forecasting and that was the same model used in my testimony.
- Q. Okay. Great. That was my understanding as well. And is your understanding that Mr. Rose was working for FirstEnergy Solutions?
 - A. I don't know.
- Q. Give me one second here. I think one more question. So when -- do you know with respect to the projected costs for the Sammis plants whether that incorporated any potential for required heat rate improvements?
- 20 MR. ALEXANDER: Could I have that question reread, please?
- MS. FLEISHER: Sorry. Do you want me to repeat or?
- MR. ALEXANDER: I was asking the reporter

119 to repeat. I didn't catch it. I want to make sure I 1 2. heard it all. 3 MS. FLEISHER: Sure. 4 (Question read.) 5 MR. ALEXANDER: Objection. Go ahead. 6 Α. I don't know. I don't know the answer to 7 that. 8 MS. FLEISHER: Okay. I think that's all 9 I have. Thanks. MR. ALEXANDER: Thank you. Would anyone 10 else like to ask questions of Mr. Lisowski in the 11 12 public portion of the transcript? MR. SETTINERI: Yes. This is Mike 13 Settineri with RESA. I don't know if anybody else 14 also has questions. 15 16 MR. ALEXANDER: Okay. Mike, go ahead. MR. SETTINERI: Thank you, Trevor. 17 18 19 CROSS-EXAMINATION 20 By Mr. Settineri: 21 Good morning, Mr. Lisowski. My name is 2.2 Mike Settineri on behalf of the Retail Energy Supply 23 Association. How are you?

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A. I am doing well. Good morning to you as

well.

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- Q. I want to just cover a few areas here but going following up on some of the questions that were just asked regarding the model, I think you had mentioned that you at any time FES needs a long-term forecast that that model would be used; is that correct? This is the proprietary dispatch model that's referenced in your testimony.
 - A. That's correct.
- Q. Okay. And in comparing those modeling runs to the modeling run that you did using Mr. Rose's energy prices, what forecast for energy prices did you use or, I should say, were used for those prior modeling runs?

MR. ALEXANDER: Just a clarification point, are you asking for who provided those forecasts, or are you asking for the numbers?

MR. SETTINERI: I am not asking for the numbers. I am just asking who -- who provided those and getting to the essence of it is what company.

MR. ALEXANDER: Go ahead.

A. I want to make sure I understand the question. You are asking in prior to this proposed PPA in the forecasts in my testimony when FES has

used this forecast, you are asking me where did those inputs come from?

- Q. Yes. When FES has used this proprietary dispatch model previously, where did the energy pricing forecasts come from?
 - A. It came from FES, FirstEnergy Solutions.
- Q. And, now -- and specifically did that come from a department in FES?
 - A. It came from the FES organization.
- Q. Do you know what part of the organization?
- 12 A. I don't know the specific department within the group.
 - Q. Do you know the individual?
 - A. I do not.

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- Q. Okay. Do you have any involvement in reviewing the accuracy of those forecasts?
 - A. Which forecasts?
 - Q. In the energy pricing forecasts that were provided by FES from prior runs of the proprietary dispatch model.
 - A. I want to make sure I clarify. Are you asking about the accuracy of the energy forecasts?
 - Q. Yes. I want to know if you had any

122 1 involvement in reviewing the accuracy of those 2 forecasts for energy prices that were used as inputs 3 to those prior modeling runs. 4 Α. No, no, I did not. 5 Okay. And how far out were those 6 forecasts for energy pricing? 7 Α. I don't recall how far out they go. 8 Q. Okay. Thank you. More than one year? 9 Α. Yes. 10 More than two years? Q. 11 Α. Yes. 12 More than five years? Q. 13 Α. Yes. 14 Q. More than 10 years? 15 Α. Yes. 16 More than 15? Q. 17 Α. Yes. 18 Q. More than 20? 19 Yes. Α. 20 More than 30? Q. 21 I don't know. Α. 2.2 So at least over 20 years? Q. 23 Α. Yes.

Okay. And were -- for the prior model

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Q.

runs that you are aware of in regards to the pricing energy forecast, did all of those forecasts that were used as inputs use the same term, the same timeframe, for the forecast?

- A. I don't recall.
- Q. Is it fair to say FES has maintained forecasts on energy prices at least out 20 years?
 - A. Yes.

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- Q. Okay. And, now, turning the work that you did in your testimony and the fact that you used the proprietary dispatch model to come up with the tables that are attached to the to your testimony, why didn't you use the FES forecasts to prepare your testimony? And this is in regards to the FES forecast of energy pricing.
- A. That's because I was requested to use the energy forecasts and price forecasts that was provided by Witness Rose. I was not requested to use the FES forecasts.
- Q. Did you have any conversations with anyone that you felt that you would prefer to use the FES energy pricing forecasts?
 - A. No.
 - Q. Did you feel like you had the option to

use those forecasts for the FES energy pricing forecasts versus Mr. Rose's energy pricing forecasts?

- A. I guess what -- can you rephrase the question?
- Q. Sure. You were told to use the -Mr. Rose's energy pricing forecasts for your input to
 your model, correct?
- A. In the request that originated from Jim Haney it was requested that I run the dispatch model using Witness Rose's assumptions and inputs.
- Q. And did you feel you could ignore that request and use FES's energy pricing forecast instead?
- A. I was requested to use Witness Rose's, so I don't know why I would have ignored that because that wouldn't have met the request of Mr. Haney.
- Q. Okay. Now, going back to the FES forecast, the FES energy pricing forecast, has FES conducted any forecast on capacity prices on a going-forward basis?
 - A. Yes.

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Q. And in regards to prior work that you've done with this proprietary dispatch model, did -- am I correct that the forecasted capacity prices would

not be an input to that model?

A. Correct.

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MR. SETTINERI: And, Mr. Alexander, if I veer into an area you would like me to defer to the confidential, let me know.

- Q. But I am just confirming here then,
 Mr. Lisowski, then you would take the outputs from
 your model and you would apply the capacity pricing
 as part of your overall summary of project -- cost
 projection -- revenue projection; is that correct?
 - A. No.
 - Q. What did I state that was wrong?
- A. I heard you say I took the outputs from the model and multiplied that by the capacity rates to derive the capacity revenues or expenses.
- Q. Okay. That's not correct, is it? You take the capacity revenues and you develop a revenue figure based -- based on -- you take the capacity pricing forecast and you use that to develop your capacity revenues; is that correct?
 - A. Yes.
- Q. And, now, so does -- forgive me if I already asked this, but FES maintains capacity price forecasts, correct?

A. Yes.

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- Q. And how far out are those forecasts?
- A. I don't know exactly how long they go out.
 - Q. Okay. And same exercise as last time but work backwards, over 20 years?
 - A. I don't know if it goes beyond 20 years.
 - Q. All right. Beyond 15?
 - A. It does go beyond 15.
- Q. Okay. And didn't you use the FES
 capacity forecast to develop your testimony versus
 Mr. Rose's capacity forecasts?
 - A. I was requested through the request from Mr. Haney to use the capacity revenue -- excuse me, the capacity rates forecasted by Mr. Rose.
 - Q. Do you anticipate running any future using your priority dispatch model for any future forecasting?
 - A. For what purpose?
- Q. Well, let me rephrase that. Do you
 anticipate using your proprietary dispatch model to
 develop forecasts for revenues?
- 23 MR. ALEXANDER: Objection. Forecasts for 24 FES or forecasts for the companies in this

Yeah, I apologize. Generically with the

talking about generically the model?

Q.

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model the output -- let me back up.

Generically the proprietary dispatch model is each run done on a unit basis?

A. Yes.

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- Q. So in order to model the Sammis, the Davis-Besse unit, and the OVEC entitlement -- or the OVEC units, you would have to do a number of runs of the proprietary dispatch model, correct?
- A. Hold on a second. I want to back up something. You did state it correctly. OVEC is run in the model not by individual units. OVEC is run as one essentially unit, if you want to talk think of it that way. But the Sammis units and Davis-Besse are on individual unit. So I want to make sure that's clear in the record. And, I apologize, can you repeat the question you just asked me?
- Q. Sure. And let me just -- for my own how many units are with the Sammis plant?

Did you hear that Mr. Lisowski?

- A. Oh, you are asking me that question? There are seven units at Sammis.
 - Q. All right. And Davis-Besse is one?
 - A. That's correct.
 - Q. And OVEC entitlement counts as one unit,

correct?

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- A. In our model, that's correct.
- Q. Okay. So you would run nine runs of the model -- let me back up. For your testimony you ran nine runs of that model to develop your testimony, correct?
- A. Well, technically, no. The model can run multiple units at the same time as part of one run.
- Q. Okay. That helps, thank you. Another question I had is on the output of the model. We discussed the inputs. What output -- what are the primary outputs that you get from this model that help you -- that you use to develop -- that you developed -- helped you develop the table in your testimony?
- MR. ALEXANDER: Objection to form. Go ahead, if you can.
 - A. Could you repeat the question?
- Q. It was pretty butchered. What are the primary outputs of the model?
- A. There's a number of outputs of the model.

 And I'll answer the question. I think we are getting

 pretty close to the confidential side of it though.

 But actually I believe there was a discovery response

where we did provide the output of the model.

- Q. Okay. Well, I'll just table that and we'll ask that. Some other questions, Mr. Lisowski, you had mentioned earlier you are named as an officer in various entities.
 - A. That's correct.

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- Q. Okay. Just so I understand what do you mean by named?
- A. I'm considered an officer of those legal entities within FirstEnergy Corp.
- Q. Okay. So you have -- I am just trying to drill down just to understand, so you have -- there has been a resolution or some action taken by those entities naming you or designating you as an officer; is that correct?
 - A. That's correct.
- Q. Thank you. Let me ask this question. I guess -- I think at this point if you don't mind looking at I think what was marked earlier as I believe it's Sierra Club Exhibit 1, the organizational chart that's in black and white.
 - A. Okay. I have it.
- Q. Let me ask you this question, does FirstEnergy Corp. have any employees?

Jason Lisowski 131 1 Α. I don't know. 2 Okay. And let's just kind of walk Q. 3 through the org chart then, if you don't mind. Does 4 FirstEnergy Solutions have employees? 5 Α. Yes. 6 Q. Okay. Does FirstEnergy Nuclear 7 Generation have employees? 8 Α. You are talking FirstEnergy Nuclear 9 Generation, LLC? 10 Ο. That's correct. 11 Α. No. 12 And does FirstEnergy Generation, LLC, Q. have any employees? 13 Α. Yes. 14 15 And FirstEnergy Nuclear Operating Q. 16 Company, does that have employees? 17 Α. Yes. And do you know the form of corporate 18 Q. entity for FirstEnergy Nuclear Operating Company? 19 I don't know if I understood the 20 Α. 21 question. 2.2 Is it an LLC? Q.

I don't know.

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Okay. And what about FirstEnergy

Solutions Corp.?

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- A. I don't know.
- Q. Okay.

MR. OLIKER: Mike, I apologize. I need to drop off the call for a minute. You will hear my tone, so I will be back in a little bit. Sorry to interrupt.

Q. Okay. And another question you may not know the answer to, Mr. Lisowski, do you know who the -- do you know who the managing member of -- is for FirstEnergy Generation, LLC?

MR. ALEXANDER: Objection, relevance.

Answer if you know.

- A. What do you mean by managing?
- Q. I am just trying to understand the corporate structure, the structure, and so, for instance, is FirstEnergy Generation, LLC, is it a single member LLC where the only member is FirstEnergy Solutions Corp.?

MR. ALEXANDER: Same objection.

- A. I don't understand the question.
- Q. Okay. Let me ask you this question, it's my understanding -- let me ask you this, what's your understanding of the cost recovery or what will

FirstEnergy Solutions Corp. recover not in terms of dollar amounts but generally conceptually through the -- through the PPA from FirstEnergy -- or from the EDUs?

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MR. ALEXANDER: Objection. Beyond the scope of his testimony. Go ahead.

- A. I believe Mr. Ruberto's testimony lays that out.
- Q. Would that be a cost of service plus return on investment?

MR. ALEXANDER: Objection. Beyond the scope of his testimony. Go ahead.

- A. I think you need to look at Mr. Ruberto's testimony for that.
- Q. Okay. Well, let me -- I just want to walk through this then. So, first of all, under the PPA, do you know who will be making payments to FirstEnergy Solutions for the energy and capacity for the units? And when I say units, that includes Sammis, Davis-Besse, and OVEC entitlement.

MR. ALEXANDER: Again, objection. It's beyond the cope of his testimony.

A. I don't know who is going to be paying the energy capacity revenues. I don't know.

Q. All right. Let me ask you this then,
let's assume though that there are payments coming
into FirstEnergy Solutions Corp. for energy and
capacity, all right? Now, does FirstEnergy Solutions
Corp. as part of its cost have to make payments to
FirstEnergy Generation?

MR. ALEXANDER: Objection. The witness has said he doesn't know how the flow of funds is going to work.

MR. SETTINERI: No, that wasn't it.

Let's see if he can answer it.

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- A. I don't -- I don't understand the question.
- Q. All right. Let's start am I correct that FirstEnergy Generation houses the fossil assets?
- A. FirstEnergy Generation, LLC, does own fossil assets.
 - Q. Right. And Davis-Besse would be owned by FirstEnergy Nuclear Generation, LLC, correct?
 - A. That's correct.
 - Q. Okay. And then First Nuclear -- sorry,
 FirstEnergy Nuclear Operating Company, that would be
 the operator for Davis-Besse; is that correct?
 - A. That's correct.

- Q. Okay. Does FirstEnergy Solutions make any payments to FirstEnergy Nuclear Operating Company for the operation of the Davis-Besse plant?
 - A. FirstEnergy Solutions, no.

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- Q. Okay. Who -- does any entity make payments to FirstEnergy Nuclear Operating Company for operating the Davis-Besse plant?
- A. FirstEnergy Nuclear Operating Company will allocate IGS costs to the owner of the nuclear generation assets.
- Q. Okay. And how -- how many nuclear generation assets are there under the FirstEnergy Nuclear Operating Company?
 - A. Could you rephrase the question?
- Q. How many nuclear assets are under FirstEnergy Nuclear Operating Company?
 - A. There's a number of assets that FENOC is -- nuclear assets that FENOC is operating.
 - Q. And so -- so there's an allocation done on the cost incurred by FirstEnergy Nuclear Operating Company and then that allocation gets assessed among the assets; is that correct?
 - A. That's correct.
 - Q. And where does the assessment for

Davis-Besse end up?

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- A. It would show up -- I guess what do you mean where does it show up?
 - Q. I assume that assessment is going to be incurred by some entity and go on some entity's books.
 - A. Would show up as an operating cost to that generation plant.
 - Q. Whose books would it be on?
 - A. That expense would be shown on the books of whoever owns that generation asset.
 - Q. So that would -- that would show on the books of FirstEnergy Nuclear Generation, correct?
 - A. For the assets that FirstEnergy Nuclear Generation, LLC, owns.
 - Q. Okay. All right. Is that allocation subject to change?
 - A. I guess what do you mean?
 - Q. Let's say we have 100 percent and 20 percent of the costs for FirstEnergy Nuclear Operating Company are assessed against the Davis-Besse unit as of 2014. Is there a chance that in 2015 that allocation could change?
 - A. FirstEnergy Nuclear Operating Company

charges their time to the generation assets based on the activities that FirstEnergy Nuclear Operating Company is doing, so if allocation changed, it's because the activities changed.

- Q. What kind of activities would drive a change?
- A. If -- I mean, there could be a number of reasons on why the allocations could go up or down.

 I mean, there is all kinds of different reasons that could occur.
- Q. Let me ask you a question. You mentioned earlier about the proprietary dispatch model is run by a group called business development, correct?
 - A. That's correct.

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- Q. What is the role of the business development group?
- A. Well, one item is they run the proprietary dispatch model, but they also will look at other strategic initiatives as a service company group within FirstEnergy.
- Q. So you said they look at strategic initiatives within the FirstEnergy companies; is that what you said?
 - A. I said across -- I said they -- I'm

sorry. Could you repeat that question?

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MR. SETTINERI: Actually if the court reporter doesn't mind, if she could just or he could just read the answer back for me on that from Mr. Lisowski.

(Record read.)

MR. SETTINERI: Okay. Thank you.

- Q. And when you use the phrase "strategic," what do you mean?
- A. It could mean a lot of different things. It could look at asset divestitures. It could look at asset acquisitions. They could look at a multitude of long-term strategic opportunities that reside within the company.
- Q. Okay. Now, you had mentioned that you -that this modeling was done under your supervision.
 What do you mean by under your supervision?
- A. I requested business development to run the model based on the inputs I provided them. They then provided me the outputs. I reviewed the outputs. If I had any questions, I discussed it with business development. That's what I meant by supervision.
 - Q. Okay. Thank you. When you provide the

inputs, do you provide those electronically or in writing?

A. Electronically.

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- Q. And then what happens -- the person that receives those inputs electronically from you, what do they do with that -- those -- that information?
- A. They will input it into the modeling dispatch system.
- Q. Okay. And you mentioned previously that the modeling system, at least part of it, consists of an Excel spreadsheet, correct?
- A. It's -- it's a Microsoft Excel-based program.
 - Q. Okay. The inputs are keyed in; is that correct?
 - A. They could be keyed in.
- Q. Okay. Were they keyed in in the case of the modeling that was done for your testimony?
 - A. I don't know if they were keyed in.
- Q. Well, how -- how -- what's the other method to enter inputs into the model?
- A. They could take an electronic file I sent them and copied it and pasted it right into the input.

- Q. Okay. You don't know whether that occurred in this case.
 - A. I don't know what occurred.
- Q. Okay. You don't know if someone typed in the inputs, whether they transposed a number or made any other kind of mistake in entry; is that correct?
- A. I reviewed the inputs that were loaded into the model.
- Q. Was that -- that was a printout from the model?
- A. It would have been a -- one of the input sections of the model that the model relies on is what I reviewed.
- Q. Okay. And what did -- and in terms of the inputs, is that something you typically do? Do you review the inputs when you run the models?
 - A. Yes.

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- Q. Okay. And did your review of the inputs include the energy pricing forecasts for Mr. Rose?
 - A. Yes.
- Q. Okay. And did that -- your review of the inputs include all 15 years' forecasts?
 - A. Yes.
- Q. Okay. You mentioned, I believe, that

there are other inputs to the model besides energy prices and generation capabilities. And correct me if I'm wrong, but I also believe that you mentioned that this model has been used for a number of years. Is there -- do the -- let me ask this question, do the -- do the formulas contained within the model, are they updated or have they been updated since you have been involved with the modeling?

- A. I'm sorry, can you rephrase the question?
- Q. It was really clunky. Let me ask again. First of all, am I correct you stated this model has been used for a number of years for internal projections at FES?
 - A. That's correct.

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- Q. Okay. And that it is Microsoft Excel based; that's correct, right?
 - A. That's correct.
- Q. Okay. And am I correct that there are certain formulas that are contained within this model that are able to generate the output for the model?
 - A. Oversimplified but that's correct.
- Q. Okay. And if I understand, again maybe oversimplified, but I believe previously that you stated or implied that those formulas have not been

updated since you have been working with -- since you have been involved with this model.

MR. ALEXANDER: Objection. I think that misstates prior testimony but go ahead.

- A. You're asking have the -- the formulas, the calculations within the software system, has that been -- has that changed over the last several years; that's your question?
 - Q. Yes, sir.

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- A. I believe I responded previously also that I'm not aware of those formulas changing. They are certainly not updated routinely.
- Q. Okay. Are you aware of any studies or analyses to determine the accuracy of the proprietary dispatch model?
 - A. I'm sorry, can you repeat that question?
- Q. Sure. Are you aware of any studies or analysis that has been done by any entity to determine the accuracy of the dispatch model?
- A. FES routinely uses this forecast in its internal projections. It's constantly relying on it. It's constantly, you know, updating inputs if things are known on the operational side. It uses it a lot. So as part of just constantly using it and

- understanding it, I would say that is constantly being reviewed for accuracy in that regard.
- Q. Okay. Have you -- has FES or anyone done a study to actually go back and do a his -- take historic -- I should say actual results and compare those to what the forecasts were?
 - A. I don't know.

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- Q. You mentioned earlier that -- a minute ago you mentioned FES regularly updates inputs and things of that nature, but my question is do you believe the proprietary dispatch model is an accurate model?
 - A. Yes, I do.
 - Q. Okay. What do you base that on?
- A. Based on the fact that we've used it to project dispatch results in modeling for a number of years and we continue to believe it's accurate. We make decisions off of it. The business utilized it and relies on it. That's why.
- MR. SETTINERI: Okay. Thank you.
- 21 If we can go off the record,
- Mr. Alexander, I can give you a flavor for what I have left.
- 24 MR. ALEXANDER: Yeah, that would be

great. Let's go off the record for a moment.

(Discussion off the record.)

MR. ALEXANDER: Let's go back on the record, please.

- Q. Mr. Lisowski, if you could please turn to page 4 of your prefiled testimony.
 - A. Okay.
 - Q. Do you have that?
 - A. Yes.

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- Q. Okay. Thank you. On line 12 and 13, you use the phrase "will be dispatched economically."

 What do you mean by that phrase?
 - A. It means the plants will operate when their energy revenues are in excess of their variable costs.
 - Q. Okay. And this is in -- that would be a direct result from your -- or a -- that would be part of your model; is that correct?
 - A. I guess I want to make sure I understand. What do you mean it's a part of the model?
- Q. Well, let's look at the entire phrase.

 "I used a dispatch modeling system to project how the plants will be dispatched economically and the amount of energy revenues that will be generated by each of

the plants." All right? Now, the model is, in essence, a mathematical calculation, correct?

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- A. I'm sorry. Say that word again.
- Q. The model is a mathematical calculation based on certain inputs.
 - A. Oversimplified but that's correct.
- Q. Okay. So in looking at the phrase dispatched economically, are you referencing that that reference relates back to the model or is that how you believe the units will be dispatched going forward under this program?
- A. No. That's how the model calculates how the dispatch will be. That's a part of the calculation of the model.
- Q. All right. So the model will consider each unit available to dispatch so long as the unit's variable costs are less than the forecasted and inputted energy price for that period, correct?
 - A. Oversimplified but that's correct.
- Q. Would it be more accurate in that sentence to state "I used a dispatch modeling system to project how the plants will be dispatched and the amount of energy revenues"? So, in other words, strike the word "economically"?

A. No. I believe the way my testimony reads is -- is correct and accurate.

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Q. All right. I just want to confirm though you stated earlier, I believe, that you are not familiar with -- how the units are dispatched; is that correct?

MR. ALEXANDER: Objection. I think that misstates the prior testimony. Go ahead.

- A. What I said before was that I am not involved in the day-to-day actual decision making of dispatching FES's generation assets.
- Q. Okay. And you don't know whether going forward these units will be dispatched on a variable cost basis or a must-run basis; is that correct?

MR. ALEXANDER: Objection. Are you asking what does the model do or how the plants will actually be run? Which are you asking?

MR. SETTINERI: If the court reporter doesn't mind just rereading the question, I would appreciate it.

(Record read.)

MR. ALEXANDER: Same objection.

A. Yeah. Are you referring to the model, or are you referring to how FES is actually going to

dispatch?

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- Q. I would be glad -- I am referring to how these units would be dispatched in the future under this program if it's approved.
 - A. I don't know.
- Q. Okay. Let me ask you this, does the model that you used to develop your testimony, did it include any assumptions that would relate to an operator's or generator assets owner's lack of incentive to reduce variable costs?
- A. Could you rephrase the question? I don't understand.
- Q. Sure. Did your model that you used to develop your testimony when you provided the inputs, was there any consideration given in the inputs or with the model itself of any lack of incentive by an operator or generation asset owner to reduce variable costs?
- MR. ALEXANDER: Objection to form. Go ahead.
- A. I'm sorry. I still don't understand what question you're asking me.
- Q. Well, let me just make it simpler, assuming this program goes forward and assuming we

have an entity has a guarantee -- a guarantee to recover its costs and assume it's guaranteed to receive a return on equity or investment and assume that that operator would have a disincentive to reduce variable costs, would that have -- did you consider any inputs like that or assumptions like that in your model?

- A. I don't know whether this proposed PPA would have any impact on how the plants get dispatched going forward.
- Q. Okay. If you could turn quickly to page 5 of your testimony, please, line 15.
 - A. Okay.

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- Q. You state there in line 14 "The model incorporates the generation capabilities of each FES generation facility." When you refer to "generation facility," is that a reference to the overall plant, for example, the Sammis plant or to each unit?
 - A. It's to each unit.
- Q. Okay. And, likewise, on line 17 and 18, "the forecasting model generates a projection of when the Plants will be operating," when you refer to "Plants" there -- let me back up.

When the forecasting model generates a

projection of when, is it more accurate to say the units will be operating?

- A. I wouldn't change the word in my testimony, but the forecasting model would generate a projection by unit.
- Q. Okay. So any of the units of the Sammis plant, Davis-Besse, or the OVEC, are there any existing capacity contracts in place for those units?

MR. ALEXANDER: Yeah. Let's save that for the confidential portion of the transcript.

MR. SETTINERI: Thanks, Trevor.

- Q. Just a quick question, Mr. Lisowski, you have direct staff, correct?
 - A. I guess what do you mean by direct staff?
 - Q. You have direct reports.
 - A. I do.

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- Q. Do you set performance goals for those direct reports?
- A. I guess just to make sure I'm clear, what do you mean by performance goals?
- Q. Do you have any written goals for those direct reports?
 - A. Yes.
- Q. Okay. And do you yourself have written

performance goals or written goals?

A. Yes.

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- Q. Okay. Do any of your goals relate to the economic stability program or any -- any component of this proceeding?
 - A. No.
- Q. Okay. Thank you. Do you understand how the OVEC units are dispatched?
- A. In terms of how the forecast was modeled or in terms of how they actually do dispatch?
- Q. How they actually do dispatch given the different member interests in the OVEC output.
 - A. No. I don't know.
- Q. Who -- do you know -- I may have asked you this, and I apologize if I did, who at FES is responsible for dispatching units today?
 - A. There's a dispatch department.
- Q. If this program is approved as sought in the application and the PPA goes into effect, who will then be doing the dispatching?
 - A. I don't know.
- Q. Are you aware of any conversations to that effect?
- A. I don't recall.

Q. You had also mentioned that there was some additional for -- you -- let me back up.

If I recall, you stated May, June, or July of 2014 was the -- you ran the proprietary dispatch model to help you develop your -- that information was used to develop your testimony. You also mentioned that in August of 2014 there was additional modeling done. Am I correct on the additional modeling in August?

- A. FES had done additional modeling in August.
- Q. Okay. And am I correct that that additional modeling in August covered all of -- all generating assets available to FES?
 - A. Yes.

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- Q. And what was the -- what was the -- how far out were the results of the model meaning what term did the model results cover?
 - A. I don't recall the specific year.
- Q. Well, I am just -- was it for a 15-year period?
 - A. No. It went further out than that, but I don't recall the specific year that it ended on.
 - Q. Okay. And when that modeling was

- conducted, did you use the FES energy pricing forecasts as an input or Mr. Rose's?
 - A. FES's internal projections.
 - Q. Okay. And when you ran those models, did you develop a table similar to what was attached to your testimony?
 - A. Yes.

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- Q. Okay. And when -- and assuming that you used capacity pricing forecasts to develop that table, did you use FES's capacity forecasts or Mr. Rose's capacity forecasts?
 - A. I used FES's capacity forecasts.
 - Q. And why was that modeling done in August?
- A. FES is constantly reforecasting long-term projections on all of its fleet as just part of normal course of just understanding the generation and financials of each of its plants.
- Q. Okay. And why didn't you use Mr. Rose's projections as inputs for that model?
- A. Since it was an FES forecast, we used

 FES -- strike that. Since it was an FES forecast, it

 was decided we needed to use FES's internal

 projections.
- MR. SETTINERI: I have no further

questions at this time. Thank you for your patience,

Mr. Lisowski, Mr. Alexander.

MR. ALEXANDER: Thank you.

Mr. Fisk, would you like to ask your

5 follow-up questions?

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MR. FISK: Sure. Thank you.

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FURTHER CROSS-EXAMINATION

By Mr. Fisk:

- Q. First, I just wanted to clarify, I believe your questions from Mr. Oliker you stated that the coal price projections were provided by Mr. Rose; is that correct?
 - A. That's correct.
- Q. Okay. And I just wanted to make sure was that only for the Sammis plant? Was the OVEC ones provided by OVEC?
 - A. That's correct.
- Q. Okay.
- A. That's correct.
- Q. Okay. And then following up on the last set of questioning about the new -- the modeling that you did for FES in August that looked out at least 15 years, did you use any capital cost projection for

FES's plants in that modeling?

A. Yes.

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- Q. Okay. And was that capital cost projection different than the one you used in this modeling for this proceeding?
- A. Maybe you should wait until the confidential section since we are starting to get close to numbers and comparisons.

MR. ALEXANDER: Okay. If you think the answer --

THE WITNESS: I can answer but.

Q. I'll ask about the numbers later.

MR. ALEXANDER: If you think the answer would require you to give a confidential response.

- Q. I am not asking for numbers now.
- A. I'm sorry, could you repeat the question or make sure I am clear?

18 MR. FISK: Sure. Can you read it back?
19 (Record read.)

- A. No.
- Q. Okay. And did the -- did the modeling that you did in August include a projection of environmental compliance costs outside of the carbon costs that was already discussed?

- A. I'm sorry, could you repeat the question?
- Q. The modeling that you did in August.
- A. Yep.

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- Q. I believe you testified earlier that it included an FES carbon price projection; is that correct?
 - A. That's correct.
- Q. Okay. Did it include a projection of any other environmental compliance costs?
- MR. ALEXANDER: Objection, just the

 phrase "environmental compliance costs." Go ahead,

 if you can answer.
 - A. Yeah. That's why I hesitated. What do you mean by environmental compliance cost?
 - Q. Compliance with potential future environmental regulations for coal ash or 316(b) or?
 - A. So assuming additional O&M or capital costs, there was no additional costs that were projected in there.
- Q. Okay. And is that -- that's consistent with the -- how you did the modeling for this proceeding?
- A. That's correct.
- 24 MR. FISK: Okay. That's all I have on

the public record. I believe Madeline.

MR. ALEXANDER: Ms. Fleisher, would you like to -- excuse me, Ms. Fleisher, I didn't mean to misspeak there, would you like to go next?

MS. FLEISHER: Sure, yes, no problem. I think I have just a couple of questions.

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FURTHER CROSS-EXAMINATION

By Ms. Fleisher:

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- Q. So I wanted to ask you about the August projections you did that you have been discussing with Mr. Fisk regarding all the FES generation units. So when you get the -- I will try to make this quick. But when you are getting the inputs for that, did any of them come from different sources than the input for the projections you did in this case? And I am happy to go through them as type of input, if that will be easier to break it down.
- A. The inputs used in the FES forecast that was done in August that we just referred to used FES's internal energy price forecasts. The forecast in my testimony used energy price forecasts from Mr. Rose. So there's one difference. Same thing with carbon. My testimony we used carbon costs

provided by Witness Rose. The FES forecast that was run in August I ran was using FE's projections.

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- Q. Okay. And in terms of just the basic variable costs for the plants and any capital costs --
- A. I'm sorry. I cut you off. I didn't hear that last part.
- Q. Just going to repeat are those from the same sources for each set of projections?
- A. Yes. So I heard you ask where did the O&M costs and some of the other costs enter in there. Under both forecasts they were provided by FES.
- Q. And when you say provided from FES, is there a particular -- is that the business development unit, or is that some other entity within FES?
- A. Business development is not in FES. It's FirstEnergy Service Company group.
- Q. And do those -- so I guess just as follow-up, so is there some particularly -- particular entity within or group within FES that provides the cost projection?
- A. If you look at page 3 of my testimony, on row 18 and 19, we talk about not just the operation

levels, but we do talk about that the O&M expenses, for example, operation and maintenance expenses, were provided by, you know, FES internal cost projections which was also provided in connection with the fossil and nuclear operations.

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- Q. Okay. You know, are there personnel for each plant that keep track of those? Is there some particular group of people that keep track of it for all plants?
- A. We have -- we develop the forecasts at each site level and there are persons that are responsible for development of those budgets and forecasts at that site level.
- Q. And do you know what those people who are developing the cost forecasts, what, if anything, they do to -- to test the accuracy of the forecasts?
- A. That's part of their core responsibilities and their performance is going to be measured in terms of the accuracy of those forecasts. Obviously if a site overspends, that's going to be an issue for that site and it's going to be a reflection on that person.
- Q. So you don't know in particular how they -- you know, aside from after the fact seeing if

it actually matches the projected costs, you don't know if they do anything beforehand to verify their projection?

A. I guess I am not understanding your question now then. Would you rephrase it?

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- Q. Sure. I will do my best. Apologies. So you said, if I understand you correctly, and sorry to paraphrase here, that one way they check the accuracy of cost is one way the accuracy of the projections is check to see after the fact if they don't actually match the expenditures. And what I am asking is do you know if they do anything before that, before the before the actual expenditures are made to verify the projections?
- A. Those individuals are going to go through a number of quality checks. They are going to work with the site operations. They are going to ensure that their forecasts are as accurate as they possibly can be.
- Q. And if I -- I guess, first, I am just going to verify my understanding of one of your previous answers. Is it correct that you stated that when you were running your audited -- August projections, that environmental compliance costs were

not considered except for the carbon costs?

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- A. No. That's not what I said. I said that the O&M and capital costs other than carbon were held consistent with that FES projection in August with the assumption for those O&M and capital costs in the attachments of my testimony.
- Q. Okay. So, again, just to make sure I'm understanding you, what you are saying is they were -- environmental compliance costs are incorporated into the cost projections to the same extent they are in your testimony here?
- A. The underlying assumptions are consistent in both the FES forecast that was developed internally and the testimony, my attached -- the attachments in my testimony, excuse me.
- Q. And to the best of your knowledge, did that include any costs for compliance with future ozone regulations?
- MR. ALEXANDER: Let's save discussion of specific costs for the confidential portion.
 - MS. FLEISHER: Sure. Happy to do it.
- Q. I guess my one last question is you referred to the FES internal price forecasts. Who within FES comes up with those?

- A. I don't know who the specific person is.
- Q. Okay. But you -- so your role is you get the FES internal price forecast, and you plug them in?

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- A. I'll take the FES price forecast and I'll use that to put as the input into the model.
- Q. Okay. But you have no role in FES's process of coming up with those forecasts; is that correct?
- A. When you say these forecasts, I assume you mean the energy and capacity forecasts and that's correct.
- MS. FLEISHER: Yes. Thank you for clarifying. Appreciate it.
- Okay. That's it for me. Thanks.
- MR. ALEXANDER: Okay. Any other
 questions for Mr. Lisowski in the public portion of
 the transcript?

Hearing none, we will be back with the confidential portion on the confidential phone number at 1:30. And fair warning to all, only parties who have signed the confidentiality agreement will be allowed to participate. That will be tracked and we will be monitoring who's on that call very closely so

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       please don't call in unless you are allowed to do so.
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                    With that let's go off the record.
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                    (Thereupon, at 12:28 p.m., a lunch recess
       was taken.)
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163
                                    Friday Afternoon Session,
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                                    December 19, 2014.
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                     (Confidential Portion Excerpted.)
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Jason Lisowski

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                   (Open Record.)
                   MR. FISK: I would like to mark --
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       actually I believe this morning we concluded it was
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       confidential, and it is not marked confidential.
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                   MR. ALEXANDER:
                                   Okay.
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                   MR. FISK: But we are in confidential
       session. So I am going to mark it nonconfidential.
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       It's not a confidential document.
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                   MR. ALEXANDER: Yeah. If it's not marked
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       confidential, then it is not confidential.
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                   MS. DUNN: Draft term sheet? Oh, yeah, I
       don't think it is.
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                   MR. FISK: So this is Exhibit 8.
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                   MR. SETTINERI: If I could interrupt,
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       this is Mike Settineri with RESA, are we going to
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       mark this section of the transcript as
       nonconfidential then?
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208 1 MR. ALEXANDER: Yes. So let's now go --2. we will mark this section and put it in the public 3 record from the introduction of the exhibit. 4 MR. FISK: Okay. 5 (EXHIBIT MARKED FOR IDENTIFICATION.) 6 Ο. Okay. Mr. Lisowski, you have been handed 7 an exhibit labeled Exhibit 8; is that correct? 8 Α. That's correct. And it is Attachment 1 to the companies' 9 Ο. 10 response to IEU Set 1 Interrogatory 25; is that 11 correct? 12 Α. That's what it states on the top. 13 Okay. And is that -- does this appear to 0. be a draft term sheet between FES and the companies? 14 15 Α. That appears to be correct. 16 Okay. Have you seen this document Ο. before? 17 18 Α. I saw a number of draft term sheets. I 19 may or may not have seen this specific one. 20 Okay. And what -- what involvement have Ο. 21

you had in the drafting or the negotiating of the term sheet?

- A. I was on the FES team.
- 24 Q. Okay.

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- A. That helped discuss the proposed -- or
 the -- excuse me, the term sheet associated with the
 proposed PPA.
 - Q. Okay. And how did you come to -- come to be on the FES team?
 - A. I was asked to join the team.
 - Q. By whom?

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- A. Sharon Noewer.
- Q. And who does she work for?
- 10 A. Who does she work for now?
- Q. At the time.
- 12 A. At the time I believe -- strike that.
- 13 She worked for Kelley Mendenhall.
- Q. Which entity? Which corporate entity?
- 15 A. She was FirstEnergy Solutions.
- Q. Okay. And who does she work for now?
- 17 A. I don't know who she works for now.
- Q. Okay. Is it common for you to be asked to do things by people who are not your direct
- 20 employers?
- 21 A. I guess what do you mean?
- Q. Well, you are not directly employed by
- 23 FirstEnergy Solutions, correct?
- A. That's correct.

- Q. Okay. So is it common for staff from FirstEnergy Solutions to be asking you to do specific tasks?
- A. As my testimony outlines, I support, among other things, FES in regards to accounting and financial reporting matters including forecasting.
- Q. And do people at FES have any input in your -- the evaluation of your employment performance?
- A. My boss is the one -- my boss being John Taylor is the one that gives me my performance evaluation and review.
- Q. Okay. Do you know if people at FES have input into that?
 - A. I don't know.
 - Q. Okay. And when Miss Noewert?
 - A. Noewer, Sharon Noewer.
- Q. Noewer, when she asked you to be on the FES team, did she provide you with any instructions on what you should be doing on the team?
 - A. No.

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Q. Okay. And what was your -- as a member of the FES team, what was your role in assessing this -- this term sheet?

- A. I attended meetings that were primarily to discuss the term sheet on the proposed PPA.
 - Q. Okay. How many meetings did you attend?
 - A. I don't recall.

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- Q. More than five or?
- A. I don't remember how many exact meetings I attended.
- Q. Okay. Do you recall any of the meetings you attended?
- A. What -- I recall attending meetings, being there.
- Q. Can you recall any issues that were discussed at those meetings?
 - A. I don't recall the nature and specific discussions that we had on specific items related to the term sheet, no.
- Q. Okay. And in those meetings were you representing FES?
 - A. What do you mean was I representing FES?
- Q. Well, these meetings were negotiating a term sheet, correct?
 - A. That's correct.
- Q. Okay. And the term sheet is between FES and the companies, correct?

A. That's correct.

- Q. Okay. Did -- you were there on behalf of the FES team, correct?
 - A. I was there to discuss the terms and to ensure I understood the terms and how it would impact FES.
 - Q. Were you advocating for FES's position in those negotiations?
 - A. What do you mean advocating FES's positions?
 - Q. Well, I assume -- is it your opinion that the term sheet was negotiated at arm's length?
 - A. Yes.
 - Q. Okay. And what -- in your mind what does arm's length mean?
 - A. That could mean a lot of different things. I think it means that it was negotiated fair and reasonable between two parties, that's not more advantageous to one party versus the other.
 - Q. Okay. And would that also mean that the two parties are advocating for their own positions?
- A. I think that would be a fair statement, yes.
 - Q. Okay. So were you advocating for FES's

positions in negotiations of the term sheet?

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- A. I would say that I was there to ensure that the transaction made economic sense for FES.
- Q. Okay. And what did you do to ensure that?
- A. I participated in the discussions on the term sheet for the proposed PPA.
- Q. Okay. And were there any provisions of the PPA that -- check that.

Were there any provisions of the term sheet that were -- over which there was disagreement?

MR. ALEXANDER: Objection. Asked and answered. Go ahead.

- A. I don't recall the specific discussions related to what was discussed and what was -- had more discussion. I don't recall the specific meetings and what was discussed.
- Q. Do you recall taking a viewpoint on any issue in any of these meetings on the term sheet?

 MR. ALEXANDER: Objection, asked and answered.
- A. I don't recall the specific discussions of everything that we had in terms of the term sheet.
 - Q. Do you recall any specific discussion?

1 MR. ALEXANDER: Objection, asked and 2. answered. Go ahead. 3 Α. I can't improve on the answer I have 4 given you. 5 Ο. So you don't know how many meetings you 6 attended, and you don't know anything that was 7 discussed at those meetings, correct? 8 MR. ALEXANDER: Objection, argumentative. Is that correct? 9 Ο. What's correct? 10 Α. 11 That you don't know how many meetings you 0. 12 attended and you don't know anything that was 13 discussed at those meetings.

> MR. ALEXANDER: Objection, compound question.

- Could you separate -- could you repeat Α. the question you are asking me?
- Q. I was asking is it correct that you don't know how many meetings you attended regarding the term sheet?
 - I did not state that. Α.

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- Okay. How many meetings did you attend? Q.
- I said I don't recall the number of Α. meetings that I attended.

Q. Okay. And you don't recall any substantive issue that was discussed at those meetings?

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- A. I don't recall the details of every single meeting we talked about the term sheet.
- Q. Okay. Can you identify any substantive issue that was discussed about the term sheet in any meetings that you attended?
 - A. Not that -- no, I cannot.
- Q. In any of your work related to the proposed PPA, was there ever any discussion as to whether FirstEnergy Solutions would be able to terminate the PPA before the 15-year period had ended?
- A. I'm sorry, could you repeat the question?

 MR. FISK: Could you read the question

 back.

(Record read.)

- A. I don't recall being involved in any of those discussions.
- Q. Okay. Do you have any opinion as to whether FirstEnergy Solutions would commit to not canceling the PPA before the 15 years has run?
 - A. I don't have an opinion on that.

- Q. Okay. Do you know who might know that?
- A. I don't know who would.

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- Q. Okay. And do you know who else -- who else was at the meetings regarding the term sheet?
 - A. Other members of the FES team.
 - Q. Okay. Anyone else?
 - A. Members of the EDU team would have been there.
 - Q. Okay. Do you know anybody specifically?
 - A. Specifically on which team?
- Q. On the EDU team that were at these meetings.
- 13 A. I know Jay Ruberto was at several of the meetings.
- Q. Okay. Anyone else?
- 16 A. I know Tracy Ashton I recall being at some of the meetings.
- Q. Anyone else?
- 19 A. No one specifically. I can't recall.
- Q. And who is Tracy Ashton?
- A. Tracy Ashton at the time of the meetings
 was the manager of financial reporting and technical
 accounting.
- 24 Q. For who?

- A. FirstEnergy Service Company.
- Q. That's the same company you work for?
 - A. That's correct.

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- Q. Do you recall anyone on the EDU team being at these meetings who actually works for any of the companies?
 - A. I don't know that.
- Q. Okay, okay. So are you offering any opinions regarding any of the provisions in the draft term sheet?
- MR. ALEXANDER: Beyond his written prefiled testimony?
- MR. FISK: Right, which doesn't mention a term sheet, so yes.
- A. Do I have any opinions about the term sheet?
- Q. About any provision in the term sheet.
- Do you have any opinions?
 - A. I guess I don't understand what you mean do I have any opinions on the term sheet.
- Q. Well, is there any provision in this term
 sheet that you are planning to offer an opinion
 about, for example, at the hearing?
- 24 A. Oh, no.

Q. No, okay. And you testified earlier that you thought that the term sheet -- well, let me not put words in your mouth. Do you have an opinion about the term sheet as a whole?

MR. ALEXANDER: Objection, legal opinion. What are you asking him?

- Q. Not legal, you are not a lawyer, but any -- you know, you were part of the FES team that helped negotiate this term sheet. Do you have any opinion about the draft term sheet that's come out of those negotiations?
- A. Could you clarify what you mean by opinion? Do I think it's a well written document?

 Do I --
- Q. Do you think it's fair to all the parties involved?
- A. Yes.

- Q. Okay. And why?
- A. There's a number of reasons why --
- 20 Q. Okay.
 - A. -- outlined in other witnesses in this case and why it's a fair contract for the utilities.
 - Q. But I am asking your opinion as to you -- you just stated that you believe it's a fair contract

for the utilities, and I am asking you the reasons why you believe that.

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MR. ALEXANDER: Objection. You asked him if he was going to offer an opinion of the term sheet two questions ago. He said no and then you circled back now at this point to what he thinks about the document itself. He testified he is not going to offer an opinion as to the terms of the term sheet, so I am going to object to this being well beyond the scope of his testimony.

MR. FISK: So he is not going to testify at the hearing that he thinks this term sheet is a fair document to the companies.

MR. ALEXANDER: He is going to testify to his prefiled direct testimony. You asked him on clarification was he offering anything in addition to his prefiled direct testimony on this point. He testified the answer was no. So does that solve our problem?

MR. FISK: Let me make sure he didn't say anything about this in his testimony. If he is not going to testify with regards to the term sheet at the hearing, then that's fine.

MR. ALEXANDER: You have got his prefiled

written direct testimony so.

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MR. OLIKER: Trevor, cross is available on any matter relevant to the proceedings. It doesn't have to be related to his direct testimony.

MR. ALEXANDER: Thank you.

- Q. You just stated you believe that the term sheet is fair and that you have a number of reasons for that, correct? That was your testimony, correct?
- A. I believe it's a fair contract for all parties involved for the many reasons that I already outlined in other people's testimony. I agree with all of those items they have brought out and pointed out in their testimony.
- Q. Do you know what those items -- those reasons are?
 - A. There's a large number of reasons.
 - Q. And can you name any of them?
- A. There is \$2 billion in projected benefits to the Ohio ratepayers based on this ESP that is outlined in others' testimonies.
 - Q. Okay.
 - A. There is one example.
- Q. Okay. Any other reasons you believe this is fair?

MR. ALEXANDER: Objection. Go ahead.

A. You asked me for an example. I gave you an example.

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- Q. And I am asking if you have any other reasons. You said you had many reasons, and I am wondering what your reasons are that you believe this purchase power agreement is fair to the company.
- A. This ensures the plants provide power in Ohio. It provides economic benefits to the state of Ohio, the regions, those cities and states. I mean, many different levels. There's two more reasons.
 - Q. Do you have any other reasons?

MR. ALEXANDER: Okay. We are asking him to summize the witnesses that are going to be testifying in this proceeding. You can ask them based on their testimony. We have gotten well beyond anything in his prefiled written direct testimony on a document you asked him to clarify he wasn't going to testify on. So I don't understand the point of asking him to summarize another witness's testimony. So is this going to lead somewhere soon or?

MR. FISK: Well, I am asking -- he has now opined, I believe, the purchase power agreement itself is a fair deal for the companies. It's

different than the term sheet. It's the purchase power agreement itself. He said he has many reasons he believes this. I am asking him what his reasons are. That's a perfectly legitimate and relevant issue to explore what his reasons are.

MR. ALEXANDER: But you said over -- objection, well beyond the scope of his testimony so you have asked him a question. He's answered it summarizing another witness's testimony.

So at this point could we take a 5-minute break, and during that break I will follow up on your document issue?

MR. FISK: Sure.

MR. ALEXANDER: All right. Thank you.

(Recess taken.)

- Q. (By Mr. Fisk) Okay. In the interest of -- in the interest of time I wanted to try to clarify something, I hope. Did you have any involvement with any evaluation of the proposed agreement -- the proposed power purchase agreement done by the EDU team?
 - A. No.

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Q. Okay. And did you provide the EDU team with any data for their analyses?

- A. I provided them my attachments in my testimony and then any other information that they had requested of me during -- during those couple of months that the analyses and model was being run.
- Q. Okay. So did -- they did request other information from you?
- A. A good example Jim Haney had requested some information. My understanding that went to the EDU team.
- Q. Okay. So -- so information that Jim Haney requested from you you gave to Jim Haney, and he may have sent it to the EDU team.
 - A. That's correct.
- Q. You personally didn't send any other information to the EDU team?
 - A. No.

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- Q. Modeling input files or?
- 18 A. I don't -- I don't recall if I gave them
 19 the output files like -- like we've provided for you.
 - Q. Okay.
 - A. I don't recall if we have or not.
- Q. Or the input files.
 - A. Or the input files.
- 24 Q. Okay. And you -- you had no role in any

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       modeling they may or may not have done, the EDU team?
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                   That's correct, that's correct.
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              Q. Okay, okay. That should clear out some
       stuff. Okay.
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                    (Confidential Portion Excerpted.)
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County of Summet

1. Jason Lisowski, do hereby certify that 1 have read the foregoing transcript of my deposition given on Friday, December 19, 2014; that together with the correction page attached hereto noting changes in form or substance. if any, it is true and correct.

I do hereby certify that the foregoing transcript of the deposition of Jason Lisowski was submitted to the witness for reading and signing; 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 3/st day of accember, 2014.

My commission expires



Debra S. Flowers Notary Public, State of Ohio My Commission Expires 12-03-2019

son Lisowski Errata Sheet

→ THE REPORTER:

I have read the entire transcript of my deposition taken on the 19th day of December. 2014, of the same has been read to me. I request that the following changes be entered upon the recombor the reasons indicated. I have signed my name to the signature page and authorize you wasteen the same to the original transcript.

rage	Line	ı Cnange	+ Kcasot
: 12	13	Replace "A" with "And"	1 Transcription error
13	115	i Replace "John" with "Jon"	Transcription error
13	117	Replace "John" with "Jon"	ranscription error
48	116	Replace "JJR" with "JJL"	i Transcription error
5 i	10	Replace "JJ" with "JJL"	Transcription error
97	17	Replace "Manalaris" with "Manoleras"	+ Transcription error
97	21	Replace "Ruff" with "Ruch"	+ Transcription error
112	14	After objection, phrase "Yeah. Could you repeat the question" was from witness not Mr. Alexander.	
135	; 9	Replace "IGS" with "its"	Transcription error
157	+2	Replace "FE's" with "FES's"	i Transcription error
210	110	Replace "John" with "Jon"	i franscription error
210	116	Replace "Noewert" with "Noewer"	Transcription error

Date: December 31, 2014

Signature:

Jason Lisowski

303 CERTIFICATE 1 2 State of Ohio SS: County of Franklin 3 I, Karen Sue Gibson, Notary Public in and for 4 the State of Ohio, duly commissioned and qualified, certify that the within named Jason Lisowski was by 5 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 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 21st day of December, 2014. 14 15 Karen Sue Gibson, Registered 16 Merit Reporter and Notary in and for the State of of 17 My commission expires August 14, 2015. 18 (KSG-5978) 19 20 21 22 23 24

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Case No(s). 14-1297-EL-SSO

Summary: Deposition (Public) of Jason Lisowski electronically filed by Mr. Tony G. Mendoza on behalf of Sierra Club