BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio)	
Edison Company, The Cleveland Electric)	
Illuminating Company, and The Toledo)	Case No. 14-1297-EL-SSO
Edison Company for Authority to Provide for)	
a Standard Service Offer Pursuant to R.C.)	
4928.143 in the Form of An Electric Security)	
Plan)	

APPENDIX A TO THE MOTION OF FIRSTENERGY SOLUTIONS CORP. TO QUASH THE SUBPOENA DUCES TECUM OF SIERRA CLUB

	Page 153		Page 155
1	Friday Afternoon Session,	1	perform the calculation of the unforced capacity
2	January 16, 2015.	2	level that he ultimately used for determining
3		3	capacity revenue?
4	MR. LANG: Back on in Akron. You guys	4	A. No. The capacity levels were not
5	have finished up. The next taker by order of	5	provided to Mr. Lisowski. The capacity levels were
6	introduction this morning would have the infamous	6	an output from the model.
7	Mr. Joe Oliker.	7	Q. Okay, Just so I understand, you would
В	MR. OLIKER: Thank you for that	8	agree that the unforced capacity level that the
9	introduction, Mr. Lang.	9	models used would be a product of ICAP, G rated for
10	MR. LANG: Quite welcome.	10	EFORd.
11	MR. OLIKER: Appreciate that.	11	MR. LANG: Objection.
12	WIR OLIKER. Appreciate and	12	A. I don't know. I have not personally seen
13	CROSS-EXAMINATION	13	the details of the model.
14		14	Q. Okay. For example, if we - okay. We
	By Mr. Oliker: Q. My questions will be short this	15	can do a hypothetical to get to the point here. Can
15	afternoon, Mr. Harden. Thankfully Mr. Fisk covered	16	you understand me?
	much of my subject matter.	17	A. Yeah. We hear you right now.
17 18	Going back to an issue that you discussed	18	Q. Would you agree that for determining the
	briefly with Mr. Fisk about the ICAP rating in PIM of	19	capacity for Sammis, the revenue, that is, you would
19	the Sammis plant. Would you agree that for purposes	20	take 2,130 megawatts and apply the EFORd to that
20	of calculating the unforced capacity level of Sammis,	21	amount and then multiply it by the capacity price?
21	you would apply the EFORd number to the ICAP level?	22	A. No, I would not agree.
22	A. Could you repeat? I didn't catch the	23	Q. Could you explain why you disagree?
23		24	A. Because the model also carries out
24	last part. Page 154		Page 156
		1	predictions of how the units will be dispatched. And
1	Q. Sure For purposes of calculating the	2	what you just used would assume that all units are
2	unforced capacity level of the Sammis plant, would	3	operating at their ICAP value and that's not
3	you agree you would - you would apply the EFORd	4	necessarily how they would be dispatched.
4	rating to the ICAP level?	5	Q. I think we're this is probably my
5	A. As I recall, yes.	6	fault. I must not have asked the question very
6	Q. And in this proceeding, did you provide	7	clearly. I am totally talking about capacity revenue
7	calculations of unforced capacity to Witness	8	here.
8	Lisowski?	9	A. Oh, capacity revenue, I'm sorry, yes.
9	A. I don't remember providing unforced	10	Q. Yeah. So and maybe that helps our
10	capacity to Mr. Lisowski.	11	conversation. For purposes of Mr. Lisowski's
11	Q. Do you know who provided that information	12	projections of capacity revenue, you would agree you
12	to him?	13	would only take 2,130 megawatts for Sammis and reduc
200	A. I guess let me clarify the question, make	14	that by EFORd and apply that number to the projected
13	sure I'm interpreting what you are asking. Are you	15	price of capacity.
14	The state of the s	13	A. I guess I don't know off the top of my
14 15	talking about the projections?	16	
14 15 16	Q. Yes, I am.	16	head. I would have to sit and think about that. I
14 15 16 17	Q. Yes, I am. A. The for the purposes of the	17	head. I would have to sit and think about that. I
14 15 16 17 18	Q. Yes, I am. A. The for the purposes of the projections, the EFORd was provided to Mr. Lisowski.	17 18	head. I would have to sit and think about that. I haven't seen the calculations.
14 15 16 17 18	Q. Yes, I am. A. The for the purposes of the projections, the EFORd was provided to Mr. Lisowski. That EFORd was what was provided.	17 18 19	head. I would have to sit and think about that. I haven't seen the calculations. O. Okay. And that's my next question is did
14 15 16 17 18 19 20	Q. Yes, I am. A. The for the purposes of the projections, the EFORd was provided to Mr. Lisowski. That EFORd was what was provided. Q. And did you provide that to him or	17 18 19 20	head. I would have to sit and think about that. I haven't seen the calculations. Q. Okay. And that's my next question is did you review Mr. Lisowski's workpapers for accuracy?
14 15 16 17 18 19 20 21	Q. Yes, I am. A. The for the purposes of the projections, the EFORd was provided to Mr. Lisowski. That EFORd was what was provided. Q. And did you provide that to him or somebody under your direction?	17 18 19 20 21	head. I would have to sit and think about that. I haven't seen the calculations. Q. Okay. And that's my next question is did you review Mr. Lisowski's workpapers for accuracy? A. No, I did not.
14 15 16 17 18 19 20	Q. Yes, I am. A. The for the purposes of the projections, the EFORd was provided to Mr. Lisowski. That EFORd was what was provided. Q. And did you provide that to him or	17 18 19 20	head. I would have to sit and think about that. I haven't seen the calculations. Q. Okay. And that's my next question is did you review Mr. Lisowski's workpapers for accuracy?

39 (Pages 153 to 156)

	Page 33		Page 35
1	O. And you don't report to anyone at Toledo	1	A. No.
2	Edison?	2	 Q. And you don't report to anyone at
3	A. No.	3	FirstEnergy service company.
4	Q. And no one at Toledo Edison reports to	4	A. No. I report to Don Schneider,
5	you.	5	Q. Okay. And no one from the service
6	A. That's correct.	6	company reports to you, correct?
7	Q. And you don't communicate with anyone	7	A. That's correct.
8	from Taledo Edison with respect to	8	Q. All right. Do you communicate with any
9	FirstEnergy-related business.	9	employees of the service company?
10	A. That's correct.	10	A. Yes.
11	O. Okay. And just for the record in your	11	 Q. I suspect that would be hard to avoid.
12	appearance today you are appearing on behalf of those	12	A. Right.
13	three companies; is that correct?	13	Q. And who who do you communicate with
14	A. Yes.	14	from the service company?
15	Q. Okay. Not on behalf of FES.	15	A. Well, our legal support -
16	A. I'm employed by FES, but I am on behalf	16	Q. Okay.
17	of the companies.	17	A is from the service company. Some of
18	Q. Okay. Thank you. Are you familiar with	18	the markets support is through the service company
19	the regulated generation group within FirstEnergy	19	Some of the external affairs folks I keep in contact
20	Corporation?	20	with that are from the service company as well.
21	A. Yes.	21	O. And I'm sorry. I think you told me this
22	Q. And do you know who the director of that	22	before, but could you explain again the external
23	group is?	23	affairs folks, what are their responsibilities?
24	A. The director, I believe that's Jay	24	A. It varies. There is different parts of
	Page 34		Page 36
		1	the group. Some are local affairs. Some are federal
1	Ruberto.	2	and federal affairs in Washington, D.C. So
2	Q. Okay. And in your current position do		
	The state of the s		O So generally speaking relationships with
3	you communicate with Mr. Ruberto?	3	Q. So generally speaking relationships with
3	A. Rarely, if ever.	3	Q. So generally speaking relationships with entities outside of FirstEnergy Corp.
3 4 5	A. Rarely, if ever. O. Okay. Do you communicate with any other	3 4 5	 Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes.
3 4 5 6	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group?	3 4 5 6	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name
3 4 5 6 7	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time.	3 4 5 6 7	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds.
3 4 5 6 7 8	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with	3 4 5 6 7 8	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right.
3 4 5 6 7 8 9	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time?	3 4 5 6 7 8 9	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business
3 4 5 6 7 8 9	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you	3 4 5 6 7 8 9	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation?
3 4 5 6 7 8 9 10	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you looking for?	3 4 5 6 7 8 9 10	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation? A. Yes.
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3 4 5 6 7 8 9 10 11 12 13	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you looking for? Q. Apart from a casual encounter with Mr. Haney, do you meet with him? A. We we are on some committees together	3 4 5 6 7 8 9 10 11 12 13 14	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation? A. Yes. Q. Okay. And does that department provide any services to FES? A. Yes.
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3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you looking for? Q. Apart from a casual encounter with Mr. Haney, do you meet with him? A. We we are on some committees together from time to time, and I'll see him in our generation study team. Q. Okay. Do you discuss the marketing or dispatch of generating units with Mr. Haney? A. No.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation? A. Yes. Q. Okay. And does that department provide any services to FES? A. Yes. Q. Okay. And what services? A. They will do asser evaluations, both considering whether we want to purchase something whether we want to sell something, and they also are the keepers of our long-term price forecast.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you looking for? Q. Apart from a casual encounter with Mr. Haney, do you meet with him? A. We we are on some committees together from time to time, and I'll see him in our generation study team. Q. Okay. Do you discuss the marketing or dispatch of generating units with Mr. Haney? A. No. Q. Okay. In your current position do you do	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation? A. Yes. Q. Okay. And does that department provide any services to FES? A. Yes. Q. Okay. And what services? A. They will do asset evaluations, both considering whether we want to purchase something whether we want to sell something, and they also are the keepers of our long-term price forecast. Q. And when you say "our long-term price
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you looking for? Q. Apart from a casual encounter with Mr. Haney, do you meet with him? A. We we are on some committees together from time to time, and I'll see him in our generation study team. Q. Okay. Do you discuss the marketing or dispatch of generating units with Mr. Haney? A. No. Q. Okay. In your current position do you do any work for the FirstEnergy Service Company?	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation? A. Yes. Q. Okay. And does that department provide any services to FES? A. Yes. Q. Okay. And what services? A. They will do asset evaluations, both considering whether we want to purchase something whether we want to sell something, and they also are the keepers of our long-term price forecast. Q. And when you say "our long-term price forecast," you mean FES's.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you looking for? Q. Apart from a casual encounter with Mr. Haney, do you meet with him? A. We we are on some committees together from time to time, and I'll see him in our generation study team. Q. Okay. Do you discuss the marketing or dispatch of generating units with Mr. Haney? A. No. Q. Okay. In your current position do you do	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. So generally speaking relationships with entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation? A. Yes. Q. Okay. And does that department provide any services to FES? A. Yes. Q. Okay. And what services? A. They will do asset evaluations, both considering whether we want to purchase something of whether we want to sell something, and they also are the keepers of our long-term price forecast. Q. And when you say "our long-term price

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	Page 37		Page 39
1	regulated generation group?	1	come up.
2	A. I don't know.	2	Q. Okay. If we could talk for a minute
3	Q. Okay. When you say "asset evaluation,"	3	about those long-term price forecasts.
4	are you referring to plants specifically or other	4	A. Sure.
5	types of assets?	5	Q. So apart from anything related to this
6	A. Really it's mostly plants, but it could	6	proceeding, FES has a long-term price for
7	be other types of assets as well, right? We own a	7	long-term energy price forecast, correct?
8	Norton facility which is a compressed air storage	8	A. Yes.
9	potential location. That's something that the	9	Q. Okay, And a capacity price forecast?
10	business development team would evaluate. It's not a	10	A. Yes.
11	plant.	11	Q. Okay.
12	Q. Okay. So apart from asset evaluations	12	MR. SOULES: Just to allay any worries
13	and the long-term price forecast, does business	13	am not going to ask any specific numbers.
14	development provide any other services to FES?	14	MR. LANG: Okay.
15	A. They support us on some of our purchases	15	MR. SOULES: I am trying to be very
16	of RECs.	16	cognizant,
17	Q. And, I'm sorry, RECs are renewable	17	 Yes. Those are highly proprietary.
18	 A. Renewable energy credits, yes. 	18	Q. Yes, yes, I understand. And who
19	Q. Okay. Anything else?	19	specifically prepares those forecasts?
20	A. Not that I can remember right now.	20	A. I don't know.
21	Q. Okay. And who is the head of the	21	Q. Okay.
22	business development group?	22	A. It's housed in business development, but
23	A. That's Dave Pinter.	23	I don't know who specifically calculates them. I
24	Q. Okay. And do you have do you have a	24	know some are internal and some are externally
	Page 38		Page 40
1	sense of generally speaking what types of expertise	1	sourced through Dave Pinter's group.
2	that department has?	2	O. Okay. But the price forecasts are
3	A. Economic modeling.	3	prepared by business development, not by FES itself
4	Q. Okay. Does business development do all	4	correct?
5	the economic modeling for FES?	5	A. That's correct.
6	A. No.	6	Q. And do you know what those price
7	Q. Okay. Who else does modeling for FES?	7	forecasts are used for?
8	A. We do some of it internally.	8	A. Yes.
9	Q. Okay. And are you referring to dispatch	9	Q. And what are they used for?
10	modeling when you refer to modeling or broader?	10	A. A variety of things
11	A. Broader than that.	11	Q. Okay. Can you give me some examples?
12	Q. Okay. And what else would that include?	12	A. Valuation of units in our in our
13	A. It could include gas market modeling.	13	fleet, valuation of assets that we're considering to
14	Q. Okay. Anything else?	14	purchase.
15	A. Energy market modeling.	15	Q. Okay,
16	Q. Okay, okay.	16	A. Any number of things. If it interfaces
17	A. Things that are relevant to our commodity	17	with a commodity market, that would be at least one
18	business.	18	of the inputs into its valuation.
19	Q. Okay. Thank you. Any other modeling	19	Q. Okay. And FES uses these price forecasts
20	beyond what you just mentioned?	20	for generation dispatch modeling as well; is that
21	A. It would be on a case-by-case basis. We	21	correct?
22	have some folks with strong analytical capabilities	22	A. We do sometimes, yes.
22	in FirstEnergy Solutions so there are times when we	23	Q. Okay. Under what circumstances do you
23	Ill I Hatherey Doubletons so blot be times with		use those forecasts for modeling purposes?

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	Page 41		Page 43
1	A. For a long-term dispatch. Generation	1	views depending upon what your belief is the way the
2	dispatch modeling is something we do on a daily basis	2	economy is going to go. So there's a range of
3	seven days, pretty short-term stuff.	3	outputs that could be - could be determined based on
4	Q. Right. But if you are doing the	4	a long-term price forecast based on your view what
5	long-term forecast, then you would use these price	5	the future holds.
6	projections.	6	Q. Okay. So if you if FES were
7	A. Yes, something beyond four years where	7	interested in doing some kind of long-term revenue
8	you have visibility to energy future prices.	8	analysis, business development would be capable of
9	Q. Okay. So the price forecast extends	9	giving you, say, a case based upon a higher energy
10	beyond four years; is that correct?	10	price as well as a case based upon a lower energy
11	A. Yes.	11	price; is that correct?
12	Q. Okay. Do you know how far out they	12	 They would give us a range basically.
13	extend?	13	Q. Okay. Do you have a sense of how many
14	A. No.	14	different - how strike that.
15	Q. Do you know if they extend out beyond 10	15	And is it the same situation with respect
16	years?	16	to capacity prices where business development would
17	A. Yes.	17	be capable of giving you a range of?
18	Q. And they do?	18	A. I don't know.
19	A. Yes.	19	Q. Okay. But certainly for energy prices.
20	Q. Okay. Do you know if they extend out	20	A. Yeah,
21	beyond 15 years?	21	Q. Apart from the work that business
22	A. I'm not positive but I believe they do.	22	development does in terms of long-term forecasting,
23	O. Okay. With respect to the sort of	23	am I correct that FES itself does some long-term
24	longer-term analyses that FES performs, how	24	forecasting as well internally?
	Page 42		Page 44
1	frequently are those analyses performed?	1	A. No.
2	A. Not very frequently.	2	Q. Okay, So anything that's far forward
	A. Itot for and activity		O. Okay, So mily airing man so ha
3	O Okay Can you give me a ballpark figure?	3	looking you would go to business development.
3	Q. Okay. Can you give me a ballpark figure?		looking you would go to business development. A. Yes.
4	A. It would be event based, right, on a	3	looking you would go to business development. A. Yes.
4	A. It would be event based, right, on a case-by-case basis.	3	looking you would go to business development.
4 5 6	A. It would be event based, right, on a case-by-case basis. Q. They are not regularly updated?	3 4 5	looking you would go to business development. A. Yes. Q. Okay. Does FES ever commission any outside parties to do forecasts? A. Not forecasts.
4 5 6 7	A. It would be event based, right, on a case-by-case basis. Q. They are not regularly updated? A. The business development group regularly	3 4 5 6	looking you would go to business development. A. Yes. Q. Okay. Does FES ever commission any outside parties to do forecasts? A. Not forecasts.
4 5 € 7 8	A. It would be event based, right, on a case-by-case basis. Q. They are not regularly updated? A. The business development group regularly updates their price forecasts, but I don't know what	3 4 5 6 7	looking you would go to business development. A. Yes. Q. Okay. Does FES ever commission any outside parties to do forecasts? A. Not forecasts.
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4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. It would be event based, right, on a case-by-case basis. Q. They are not regularly updated? A. The business development group regularly updates their price forecasts, but I don't know what kind of a cadence or what regular schedule they are on to reevaluate assets, for example. Q. Okay. Do you know when the price forecasts were most recently updated? A. Within the last year. Q. Can you be more specific? A. I can't remember off the top of my head. Q. Okay. But they are fairly current it's fair to say. A. Yes. Q. Do you know, is there only one set of price projections? Are there multiple sets of	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	looking you would go to business development. A. Yes. Q. Okay. Does FES ever commission any outside parties to do forecasts? A. Not forecasts. Q. Okay. How about to do modeling, dispate modeling? A. Yes. Q. Okay. And what circumstances? A. Associated with capacity market evaluations but it's not a specific dispatch model. Q. Okay. All right. A. Also for hedging analysis determining what our right balance of — of sales channels should be for our portfolio, portfolio management. We engage outside support for some of that as well because we don't have the capability internally. Q. But none of that outside work involves modeling the dispatch of generating units; is that

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	Page 45		Page 47
1	it.	1	Q. You know business development factors in
2	Q. Okay.	2	the CO-2 prices; you don't know if they disaggregate
3	A. But it's not a specific output that says	3	that into
4	this is what you are going to dispatch.	4	A. Correct.
5	Q. Okay. And FES also has long-term CO-2	5	Q. Okay. Got it. Thank you. Are you
6	price forecasts as well; is that correct?	6	familiar with the proposed agreement under which FES
7	A. Business development would support us	7	would sell its capacity, energy, and ancillary
8	with anything that's long term. Some of these	8	services to Ohio Edison Company, Cleveland Electric
9	markets are kind of emerging right now with CASPR	9	Illuminating Company, and Toledo Edison Company?
10	showing up again so.	10	A. Yes.
11	Q. Right.	11	Q. Okay. And the assets that would be the
12	A. A lot of that is factored into the	12	subject of the proposed agreement, the Sammis plant,
13	long-term price forecast already, the cost of CO-2,	13	the Davis-Besse plant, and FES's share of the OVEC
14	for example.	14	plants, correct?
15	Q. Okay. And business development would	15	A. Yes.
16	maintain any CO-2 price forecast on FES's behalf,	16	Q. Okay. If I refer to that proposed
17	correct?	17	agreement as the proposed transaction, will you
18	A. Yes.	18	understand what I mean?
19	Q. Okay. And with respect to the CO-2	19	A. Yes, I will.
20	prices, is it the kind of situation where business	20	Q. Okay. Great. And if I refer to our
21	development would be able to give you a high CO-2	21	little trio of actually big trio of utilities as
22	case and low CO-2 case if you were doing a long-term	22	the companies, will you understand what I mean?
23	revenue analysis?	23	A. Yes, I will.
24	A. I don't know if they have got a high or	24	Q. Great. Do you know whether or not FES
	Page 46		Page 48
4	low. I know they have it factored in.	1	and the companies have executed a final purchase
2	Q. Okay. And do you know how far out those	2	power agreement for this proposed transaction?
	price forecasts extend?	3	A. We have not. We have a term sheet.
3	A. Not specifically but as we went through	4	Q. Okay. And the companies and FES have not
5	the ladder before, greater than 15 years.	5	yet put together a draft of the PPA, correct? They
6	Q. Okay, okay. And how about with respect	6	only have the term sheet; is that correct?
7	to future coal prices, does business development have	7	A. That's correct.
8	a set of price projections for coal?	В	Q. Okay. All right. Are you familiar with
			the economic stability program that the companies
	A I don't know We'll use industry indicas	9	
9	A. I don't know. We'll use industry indices	10	proposed to the Commission?
9	for that	10	proposed to the Commission?
9 10 11	for that. Q. Okay. Can you give me an example of an		proposed to the Commission? A. Yes.
9 10 11 12	for that. Q. Okay. Can you give me an example of an industry index?	10 11 12	proposed to the Commission? A. Yes. Q. Okay. And what is that generally
9 10 11 12 13	for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts.	10 11 12 13	proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it?
9 10 11 12 13	for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right.	10 11 12	proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our
9 10 11 12 13 14 15	for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal.	10 11 12 13 14 15	proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and
9 10 11 12 13 14 15	for that Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price	10 11 12 13 14 15	proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with
9 10 11 12 13 14 15 16 17	for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price that we were talking about a moment ago, business	10 11 12 13 14 15 16	proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with the transaction that you mentioned previously.
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	Page 97		Page 99
2	A. No.	1	reflecting that evaluation?
2	Q. That's not your understanding?	2	A. No.
3	A. That's correct.	3	Q. And has FES evaluated whether the OVEC
4	Q. Okay. And why why is that incorrect?	4	units would qualify?
5	A. The assumption is unless you have an	5	A. Yes.
6	exemption in the capacity performance proposal you	6	Q. Okay. And, yes, there was an evaluation,
7	have to prove that you cannot qualify as a capacity	7	or yes?
В	performance product to the independent market	8	A. Yes, there was an evaluation.
9	monitor. Otherwise, you have a must offer	9	Q. Okay. And that what was is it
10	requirement.	10	FES's understanding that those units would qualify
11	Q. Okay So it's assumed then unless you	11	A. Yes.
12	can prove otherwise.	12	Q. Okay. Was there a written report
13	A. Correct	13	reflecting that evaluation?
14	Q. Okay.	14	A. No.
15	A. — or you have an exemption.	15	O. Okay. We may come back to that a little
16	Q. Or you have an exemption. And do you	16	bit in the afternoon, but I don't want I want to
17	know what those exemptions are?	17	be sensitive to the
18	A. They are listed in the proposal but, for	18	A. Sure.
19	example, pumped hydro storage.	19	Q. So just a few more questions. Earlier
20	Q. Okay. Has FES evaluated whether the	20	you were describing sort of the short-term four-year
21	Sammis units would qualify as a capacity	21	forecast that FES performs. Do you recall that
22	performance would qualify as capacity performance	22	discussion
23		23	A. Yes.
24	resources?	24	Q where business development would
24	MR. LANG: To the extent you are	24	Page 100
	Page 98		
1	getting - you might be able to answer this question,	1	handle something that was longer term; is that
2	but to the extent you are getting into a confidential	2	correct?
3	area, let us know.	3	A. Yes.
4	THE WITNESS: All right.	4	Q. Okay. Does FES have a four-year
5	A. Yes.	5	projection of the profitability of the Sammis plant?
6	Q. Okay. FES has evaluated that.	6	 A. Well, I think those have been provided
7	A. Yes.	7	already. Those are the profit and loss statements.
8	Q. Okay. And, again, if we tread into	8	Q. The profit and loss statements.
9	something that is confidential, please, you know.	9	A. Yeah, for the Sammis plant.
10	A. I think if we get into specifics, we	10	Q. Okay. And it's your understanding that
11	might want to save that for the confidential portion	11	those have been provided to whom?
12	of the discussion	12	 A. Through Jason Lisowski's testimony.
13	MR. LANG: Right.	13	Q. Okay. Jason Lisowski provided testimony
14	Q. Okay. Well, I will ask this, and if we	14	regarding a 15-year evaluation; is that correct?
15	need to punt it, we can. Did FES prepare a written	15	A. Yeah, but in that 15-year projection
16	report of that evaluation?	16	there is the first four years. In order to do that,
17	A. No.	17	they use market forwards because that's the best
18	Q. Okay. Same question with respect to	18	information available and then the long-term price
19	Davis-Besse, do you know whether Davis-Besse would	19	forecast transitions for the out years.
20	qualify as a capacity performance resource?	20	Q. Okay. So with respect to that the
	A. Yes, I do know.	21	near years, the near term years, is it your
21		22	understanding that Mr. Lisowski's forecast is
21 22	Q. It is your opinion that it would.		
	Q. It is your opinion that it would. A. Yes.	23	consistent with FES's internal forecast?

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	Page 101		Page 103
1	Q. Okay. And do you know what price	1	Corporation if anyone within FirstEnergy
2	projections Mr. Lisowski used in preparing his	2	Corporation has an internal asset evaluation of the
3	15-year forecast?	3	Sammis units?
4	A. Idon't.	4	A. I don't know.
5	Q. Okay. Do you know - so you don't know	5	Q. Okay. Do you know if anyone within
6	whether or not FES's the energy the energy	6	FirstEnergy Corporation has an asset evaluation of
7	capacity and CO-2 price forecasts that FES regularly	7	the Davis-Besse plant?
8	use, you don't know whether or not those were used by	8	A. Well, there would be there would be a
9	Mr. Lisowski for his projections?	9	book value that business development would have for
10	A. That's correct.	10	Davis-Besse and Sammis but other than that, I don't
11	Q. Okay. You had mentioned earlier that FES	11	know.
12	does some forecasting of capacity prices working with	12	Q. Okay, okay. Sorry I am skipping around
13	an entity outside of business development; is that	13	here a little bit. Just trying to get done as quick
14	correct?	14	as we can. So cycling back for a moment to the
15	A. Yes.	15	period before you had that initial conversation with
16	Q. And who is that forecaster?	16	James Haney in May, 2014, do you recall that
17	THE WITNESS: It's a contract with an	17	discussion?
18	outside firm. Can I answer it?	18	A. Yes.
19	MR. LANG: Could be confidential to your	19	Q. Okay. And you had said that before
20	business.	20	approaching Mr. Haney you and three others at FES
21	THE WITNESS: Right.	21	were looking at profit and loss statements for the
22	A. Can we save that for the confidential	22	FES generating units; is that correct?
23	portion?	23	A. Yes.
24	Q. Absolutely, absolutely, yeah. Apart	24	Q. Okay. And when you were looking at those
	Page 102		Page 10
1	from I'm sorry. Stepping back to before	1	statements, were you evaluating what the terms of the
2	Mr. Lisowski's price forecast or, you know, his	2	PPA with the companies might ultimately look like?
3	revenue analysis that was provided to the companies,	3	A. Could you rephrase that question?
4	apart from that does FES have a purely internal	4	Q. Sure. So we so Exhibit 1 is the term
5	four-year forecast for the profitability of its	5	sheet, right, which reflects the proposed
6	units?	6	transaction.
7	A. No.	7	A. Yes, yes.
8	Q. Okay. And you had mentioned earlier that	8	Q. And that term sheet is a culmination of a
9	FES prepares his occasionally prepared asset	9	process that began shortly after New Year's of 2014,
10	evaluations of certain units in the regular course of	10	correct?
11	its business; is that correct?	11	A. Yes.
12	A. Actually that's not correct. It's	12	Q. Okay. Prior to - when you were looking
13	business development will	13	at these earlier profit and loss statements thinking
14	O. Oh, okay.	14	about approaching the companies, were you thinking
15	A perform those evaluations.	15	about, you know, what the term of the proposed
16	Q. Okay. Because those are the longer-term	16	transaction might look like or might be?
17	evaluations that FES doesn't have the internal	17	A. Yes. As I mentioned, 15 years was what
18	capability to?	18	we had originally thought.
77	A. Not only that. FES's function isn't	19	Q. Okay. And you had also mentioned after
19	asset evaluation.	20	the initial discussion with Mr. Haney but before
	O. Okay. The business development asset	21	making the specific proposal for Sammis, Davis-Bess
20			and the OVEC share, FES had prepared a PowerPoint
20 21		22	
19 20 21 22 23	evaluations, are those prepared at FES's request? A. From time to time, yes.	22	presentation?

	Page 65		Page 67
1	MR. FISK: First, general category.	1	also used this model to project out even longer term
2	MR. ALEXANDER: Okay. The concern is	2	including the years in this PPA for, again, not just
3	these are internal FES proprietary forecasts, and I	3	the Sammis, Davis-Besse, and FES's share of OVEC bu
4	don't want to get too far down that path so I	4	all of FES's assets and generation plants.
5	understand, I think, where you are getting. Let's	5	Q. In separate modeling from what you
6	just be cognizant of that.	6	presented in this proceeding?
7	MR. FISK: Sure. We can punt to the	7	A. No. It was using the same dispatch
8	afternoon.	8	model.
9	MR. ALEXANDER: Even in the afternoon I	9	 Same dispatch model but different runs.
10	would have objection to non-PPA forecasts if you ask,	10	A. Different different inputs were used.
11	but we can cross that bridge when we come to it.	11	Q. Okay. And to your knowledge have any of
12	MR, FISK: We can deal with that then.	12	those modeling runs been presented to any of the
13	A. Make sure I clarify, your question was	13	parties in this proceeding?
14	when - what kind of forecasts has FES done since the	14	A. My understanding is using FES's
15	PPA?	15	projections, they've been provided to the Sierra
16	Q. Yeah.	16	Club.
17	A. What the forecast is going to be for is	17	MR. FISK: Can we go off?
18	the competitive business of the FirstEnergy Solutions	18	(Discussion off the record.)
19	for over the next couple of years.	19	O. We can go back on. So you're saying that
20	Q. Okay. Any other projections?	20	there were different modeling runs using different
21	A. No.	21	inputs, but your belief is those were presented to
22	Q. Okay. Have you modeled the projected	22	the Sierra Club?
23	operation of any of the Sammis plant or any of the	23	A. My understanding was there was a subpoena
24	Sammis units since your testimony in this proceeding?	24	by the Sierra Club requesting that information.
	Page 66		Page 68
1	A. No.	1	Q. Okay. And outside of that, outside of
2		2	whatever may have been produced in the response to
3	Q. Okay. And have you projected revenues or costs for any of the Sammis units since your	3	that subpoena, were there any other modeling runs
4	testimony in this proceeding?	4	that you have done in the past year evaluating the
5	A. No.	5	projected revenues or operation of any of the FES
6	Q. Okay. Outside of this proceeding have	6	units?
		7	
(4)	you modeled the projected operation of any of the		
7	you modeled the projected operation of any of the		A. No. O Okay And when did you do the modeling
7	Sammis units any time in the past year?	8	Q. Okay. And when did you do the modeling
7 8 9	Sammis units any time in the past year? A. Yes.	8	Q. Okay. And when did you do the modeling that you presented in this proceeding in your
7 8 9	Sammis units any time in the past year? A. Yes. Q. Okay. And when was that?	8 9 10	Q. Okay. And when did you do the modeling that you presented in this proceeding in your testimony?
7 8 9 10	Sammis units any time in the past year? A. Yes. Q. Okay. And when was that? A. In the August timeframe we projected what	8 9 10 11	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
7 8 9 10 11	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	8 9 10 11 12	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
7 8 9 10 11 12	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	8 9 10 11 12 13	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
7 8 9 10 11 12 13	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.	8 9 10 11 12 13	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.
7 8 9 10 11 12 13 14 15	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	8 9 10 11 12 13 14 15	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?
7 8 9 10 11 12 13 14 15	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.	8 9 10 11 12 13 14 15 16	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
7 8 9 10 11 12 13 14 15 16	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?	8 9 10 11 12 13 14 15 16	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.
7 8 9 10 11 12 13 14 15 16 17	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.	8 9 10 11 12 13 14 15 16 17	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
7 8 9 10 11 12 13 14 15 16 17 18	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	8 9 10 11 12 13 14 15 16 17 18	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
7 8 9 10 11 12 13 14 15 16 17 18 19 20	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?	8 9 10 11 12 13 14 15 16 17 18 19 20	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
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	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	8 9 10 11 12 13 14 15 16 17 18 19 20 21	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?
7 8 9 10 11 12 13 14 15 16 17	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?	8 9 10 11 12 13 14 15 16 17 18 19 20	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

17 (Pages 65 to 68)

	Page 97		Page 99
1	A. I have I have a manager of accounting,	1	ASC 980?
2 1	I have an administrative assistant, and I have a	2	A. I don't memorize all the accounting rules
3 (couple managers and director associated with the	3	and numbers.
	accounting forecasting budgeting associated with our	4	Q. Okay. Would you agree that when certain
	generation plants.	5	regulatory events happen, it triggers a requirement
6	Q. Can you identify those individuals'	6	that a company perform an impairment analysis?
7 1	names?	7	A. Depending on the regulatory decision,
8	A. Is that really relevant?	8	that's possible.
9	Q. Yes.	9	Q. Okay. And I don't think this is
10	A. Okay.	10	confidential, but do you know whether FES has
11	MR. ALEXANDER: Objection to relevance.	11	undertaken an impairment analysis regarding Sammis
12 (Go ahead and answer.	12	Clifty Creek, Kyger Creek, or Davis-Besse in the last
13	A. All right. My administrative assistant's	13	three years?
14 r	name is Deborah Flowers. My manager of accounting is	14	A. I believe that's confidential. I have no
	Mike Falen. The directors and managers of business	15	problem answering that question, but I would rather
	services, their names are Robin Zablocky, Darrell	16	it wait until the confidential section.
000	Converse, and Jackie Manalaris.	17	O. Okay. That's fine. Likewise, the
18	O. Okay. Has Sharon Noewer ever reported to	18	results of that analysis would be confidential too,
	you?	19	right?
20	A. No.	20	A. Absolutely.
21	Q. How about Roger Ruff?	21	Q. Okay. Are you familiar - are you
22	A. No.	22	familiar with the term installed capacity?
23	Q. Do you know those people?	23	A. I don't know what that means.
24	MR. ALEXANDER: Objection, relevance.	24	Q. What about ICAP?
	Page 98	1	Page 100
1	A. Do I know them? What do you mean do I	1	A. I've heard that term.
	know them?	2	Q. Okay: Funny how people know the acronym
3	Q. Do you work with those people on a normal	3	rather than the real words sometimes. Are you
	basis?	4	familiar with PJM's rules related to ICAP or UCAP, o
5	A. No.	5	unforced capacity?
6	Q. Going back to your accounting background,	6	A. I don't know all the rules associated
17	do you know what an impairment is?	7	with that.
8	A. Yes.	8	
9	Q. Do you agree that an impairment is a	9	Q. Do you know any of them? MR. ALEXANDER: Objection. We are
	writeoff in value of an asset in order to bring the	10	
	value of the asset on the books in line with the	11	getting pretty far afield of his testimony. Go ahead and answer, if you can.
	estimated market value?	12	
13		13	A. I know ICAP is what determines the
	A. It's not completely the correct	14	capacity revenues that you could - that a generation
	definition under accounting rules but generally	1.00	station could earn if they cleared the capacity
15 s	peaking, that's correct.	15	auction.
	Q. Can you provide the correct definition,	17	Q. Do you mean UCAP, Mr. Lisowski? Isn't it
18 P	A So there's many different types of	18	true that I'm sorry. Go ahead. I didn't mean to
	A. So there's many different types of	19	interrupt you.
	mpairments of assets that you could have. Generally peaking it's when the realizable value of an asset	20	A. No, go ahead.
	s less than the carrying value of that asset on the	21	Q. Isn't it true that PJM uses unforced
	ooks in accordance with US GAAP.	22	capacity to determine the amount of capacity
23	Q. Okay, And are you familiar with	23	compensation it can receive?
			A. You are correct. This gets into the
24 A	accounting Standard Codification 980 or also known as	24	competitively sensitive area but in my workpapers y

25 (Pages 97 to 100)

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	Page 101		Page 103
1	will see that I use the UCAP of each of the stations.	1	nominal capacity and installed capacity are
2	Q. Okay. Are you are you familiar with	2	different?
3	how those unforced capacity levels were determined?	3	A. No.
4	And I don't want you to divulge competitive	4	Q. Do you know the formula for determining
5	information. But are you familiar with the process	5	an unforced capacity level?
6	of determining a UCAP level?	6	A. No.
7	A. I am not.	7	Q. Do you know the installed capacity level
8	Q. Who would have performed that calculation	8	of Sammis or ICAP level?
9	for purposes of your workpapers?	9	MR. ALEXANDER: Objection, compound.
10	A. FES provided them.	10	A. Can you repeat the question?
11	MR. OLIKER: I'm sorry, did somebody else	11	Q. Do you know Sammis's TCAP level?
12	speak?	12	A. I don't.
13	MR. ALEXANDER: If everyone could mute	13	Q. Are you familiar with the impact of
14	their lines, please.	14	higher environmental controls on Sammis from an
15	Q. Mr. Lisowski, do you know who provided	15	output perspective?
16	that calculation within FES?	16	A. What do you mean by impact?
17	A. The specific individual, no.	17	 In other words, is it your understanding
18	Q. So if I were to ask you questions in the	18	that the installation of environmental controls has
19	confidential section about the UCAP levels and how	19	reduced the total potential output of Sammis?
20	that may have been determined, would you be able to	20	A. I'm sorry, can you repeat the question?
21	answer those questions?	21	Q. Maybe break it out, are you familiar with
22	A. Like I said before, those were provided	22	the term parasitic load?
23	to me by the FES so, no.	23	A. No.
24	Q. Do you know if there - which witness	24	Q. Do you know that Sammis has environmenta
	Page 102		Page 104
1	would be the appropriate witness for asking those	1	controls installed?
2	questions to, if you know?	2	A. Yes.
3	A. I don't know.	3	Q. Do you know whether those environmental
4	MR. ALEXANDER: Let's go off the record.	4	controls are powered by the output of Sammis?
5	(Discussion off the record.)	5	A. I don't know.
6	MR. ALEXANDER: So let's go back on.	6	Q. And I apologize if I already said this,
7	Q. This may be a question better for	7	but you said you don't know how PJM determines a
8	Mr. Fisk later but is FirstEnergy Solutions offering	8	unforced capacity level?
9	a witness to discuss the unforced capacity levels	9	A. I don't know.
10	that are contained in the model?	10	Q. Do you know what a forced outage is?
11	MR. ALEXANDER: Objection.	11	A. In what context?
12	MR. OLIKER: Trevor, let's go off the	12	Q. In the context of, say, the Sammis plant.
13	record. Let's talk about it there.	13	 A. I'm sorry, could you rephrase the
14	MR. ALEXANDER: Let's go off the record.	14	question?
15	(Discussion off the record.)	15	Q. Can you would you agree that a
16	Q. Mr. Lisowski, before we were talking	16	plant - a generation plant can go offline from time
17	about PJM's rules as they relate to unforced capacity	17	to time?
18	and installed capacity. Have you read any of the PJM	18	A. Yes.
19	manuals?	19	Q. Would you agree that sometimes a plant
20	A. No.	20	goes offline at an un unanticipated time?
21	Q. Do you know what the definition of	21	A. Yes.
22	nominal capacity is?	22	Q. Would you agree that's called a forced
23	A. No.	23	outage?
24	Q. So in that regard you don't know if	24	Sorry. Did you answer the question?

26 (Pages 101 to 104)

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	Page 105		Page 107
ž	A. No, no. I want to make sure I	1	coming out but that's about the extent to it.
2	understand. It's a plant that's coming offline	2	Q. Did you read about the penalties in the
3	unanticipated would be called a forced outage. I	3	performance proposal?
4	mean, are you calling it a forced outage, or is it a	4	A. I am not familiar with the details of
5	defined term in the PJM manual?	5	them.
6	 I am asking what is your understanding. 	6	Q. So would you agree that your model does
7	A. My understanding is if a plant came off	7	not assume that Sammis, Clifty Creek, or Kyger Cree
8	in an unplanned manner, it could be considered a	8	are forced to pay penalties for not performing?
9	forced outage.	9	MR. ALEXANDER: Objection to form. Go
10	Q. Okay. And is it your understanding that	10	ahead.
11	a plant's forced outage rate impacts the amount of	11	 A. My model takes the FES projected amount
12	capacity compensation you can receive?	12	of megawatts that are available to clear the capacity
13	A. Yes.	13	auction with the capacity revenue forecast provided
14	Q. Did you evaluate historical forced outage	14	by Mr. Rose. That was my forecast for capacity
15	rates of Sammis, Davis-Besse, Kyger Creek, and Clifty	15	revenue.
16	Creek?	16	Q. Okay. So let's break it down. There's
17	A. Evaluated how?	17	an unforced capacity level assumed in the model,
18	Q. Did you look at it?	18	correct?
19	A. I guess what do you mean by looked at it?	19	A. Well, what which model are we talking
20	Q. Well, for example, you have got a model	20	about?
21	here. Would you agree that the model assumes a level	21	Q. Talking about the model that was used in
22	of unforced capacity for each of the generating	22	the cash flow projections in your testimony.
23	plants?	23	A. I'm sorry, can you repeat the question?
24	A. Yes.	24	Someone chimed in and you got cut off.
	Page 106		Page 10
1	Q. And you did not personally evaluate	1	MR. ALEXANDER: Actually before you de
2	whether those numbers were reasonable, correct?	2	that, Mr. Oliker, could whoever chimed in identify
3	A. I was provided those operating parameters	3	themselves, please?
4	from the fossil and nuclear operations.	4	MS. BRADY: Hi. This is Cynthia Brady
5	Q. And you did not undertake any analysis to	5	from Exelon.
6	determine if those were reasonable, correct?	6	MR. ALEXANDER; Okay. Good morning
7	A. That's correct.	7	Go ahead, Mr. Oliker.
8	Q. And I'm sorry if you already answered	8	Q. Sure. Okay. Let's take it one step at a
0	this and I forgot, but did you review the historical	9	time. You agree your testimony has a projection of
9		. 5 6	the cash flow of four FES plants.
9	forced outage rate for Sammis for the past six years?	10	with season and a control of the Principle
9	forced outage rate for Sammis for the past six years? A. I don't recall.	10	A. My projections are not a cash flow
9 10 11	A. I don't recall.		 A. My projections are not a cash flow projection.
9 10 11 12		11	A. My projections are not a cash flow
	A. I don't recall. Q. And would your answer be the same for	11 12	 A. My projections are not a cash flow projection.
9 10 11 12 13	A. I don't recall. Q. And would your answer be the same for Clifty Creek and Kyger Creek? A. I don't recall.	11 12 13	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about?
9 10 11 12 13 14	A. I don't recall. Q. And would your answer be the same for Clifty Creek and Kyger Creek?	11 12 13 14	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants?
9 10 11 12 13 14 15	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? A. I don't recall.	11 12 13 14 15	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about? Q. Would you agree there are four plants that are the subject of this application, Clifty
9 10 11 12 13 14 15 16	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? A. I don't recall.	11 12 13 14 15 16	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about? Q. Would you agree there are four plants that are the subject of this application, Clifty Creek, Kyger Creek, Davis-Besse, and Sammis?
9 10 11 12 13 14 15 16 17	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?	11 12 13 14 15 16	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about? Q. Would you agree there are four plants that are the subject of this application, Clifty
9 10 11 12 13 14 15 16 17 18	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? A. I don't recall. Q. Okay. A few more questions. Are you	11 12 13 14 15 16 17	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about? Q. Would you agree there are four plants that are the subject of this application, Clifty Creek, Kyger Creek, Davis-Besse, and Sammis?
9 10 11 12 13 14 15 16 17 18 19	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? A. I don't recall. Q. Okay. A few more questions. Are you familiar with the PJM capacity performance proposal?	11 12 13 14 15 16 17 18	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about? Q. Would you agree there are four plants that are the subject of this application, Clifty Creek, Kyger Creek, Davis-Besse, and Sammis? A. We didn't project out the OVEC plants separately.
9 10 11 13 14 15 16 17 18 19 20	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? 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?	11 12 13 14 15 16 17 18 19 20	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about? Q. Would you agree there are four plants that are the subject of this application, Clifty Creek, Kyger Creek, Davis-Besse, and Sammis? A. We didn't project out the OVEC plants separately. Q. Okay. But would you agree your testimony
9 10 11 12 13	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? 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	11 12 13 14 15 16 17 18 19 20 21	A. My projections are not a cash flow projection. Q. Okay. Would you agree it compares the costs and revenues associated with those plants? A. Which plants are we talking about? Q. Would you agree there are four plants that are the subject of this application, Clifty Creek, Kyger Creek, Davis-Besse, and Sammis? A. We didn't project out the OVEC plants

	Page 109	+	Page 111
1	the RRS.	1	Q. Thank you. Are you familiar with the
2	Q. Okay. What would you call your	2	date the model was run?
3	testimony, Mr. Lisowski?	3	A. I don't know the specific date. I don't
4	MR. ALEXANDER: Argumentative.	4	recall,
5	Objection, argumentative.	5	Q. Do you know the month?
6	MR. OLIKER: I am just asking what did he	6	A. It would have been in the May, June, July
7	do. If he is not going to answer my questions, this	7	time period of this year.
8	is going to take hours.	8	Q. You don't know anything more specific on
9	MR. ALEXANDER: I haven't heard a	9	that?
10	question pending so could you please reask your	10	A. I don't remember the specific date that
11	question?	11	we pushed the button to get the model output.
12	Q. What is your testimony, Mr. Lisowski?	12	Q. Okay. Just a few more questions. You
13	What did it do?	13	talked about the price assumptions provided by Judah
14	MR. ALEXANDER: Objection, argumentative.	14	Rose. Were you involved at all in the retention of
15	What is his testimony?	15	Judah Rose?
16	MR. OLIKER: I am asking him at a high	16	A. No.
17	level.	17	Q. Do you know whether any assumptions were
18	MR. ALEXANDER: If you can answer that	18	provided to Judah Rose?
19	question, go ahead.	19	A. No.
20	A. My testimony on pages 1 and 2 lay out	20	MR. OLIKER: Can I have just a minute? I
21	what my testimony is referring to.	21	think I might be done.
22	Q. Okay. So you projected the output of	22	(Discussion off the record.)
23	four plants, correct?	23	Q. Mr. Lisowski, just one or two more
24	A. No.	24	questions. We talked a little bit about projections
	Page 110		Page 112
1	Q. Okay. So it says, "I then calculate the	1	of the impact of regulations on CO-2. How familiar
2	projected revenues which will be created by the	2	are you with proposed environmental regulations?
3	output of the plants." Is that not your testimony?	3	A. Not - not familiar at all.
4	A. That is my testimony	4	Q. Are you familiar with the term called
5	Q. Okay. Would you agree that your	5	environmental dispatch?
6	projected revenues include an assumption of unforced	6	A. No.
7	outage rate?	7	Q. Would you agree that the model does not
.8	A. My forecast that I've laid out in my	8	incorporate any potential constraints on
9	testimony does include an assumption for operating	9	carbon-intensive resources' ability to dispatch
10	parameters that dictate how the plants will perform.	10	besides a carbon impact?
11	Q. And one of those operating parameters is	11	MR. ALEXANDER: Could I have that
12	unforced outage rates, correct?	12	question reread, please?
13	A. That's correct.	13	(Record read.)
14	Q. Okay. So in every instance where the	14	MR. ALEXANDER: Objection to form. Yeah
15	unforced outage rate where the number is greater than	15	Could you repeat the question?
16	zero it means this is a projection that FirstEnergy	16	Q. Sure. Would you agree the model does not
17	Solutions' plants may go offline at an unanticipated	17	contain any restraints on carbon-intensive resources
18	time; is that correct?	18	besides a carbon impact?
19	A. That's correct.	19	 I don't understand that question.
20	Q. So you would agree that in the event	20	Q. Okay. You agree the model has a
21	there are penalties for going offline for an unforced	21	projection of costs of CO-2.
22	outage, those would not be picked up in your	22	A. Yes.
23	analysis.	23	Q. Okay. There are no other carbon-related
24	A. That's correct.	24	restrictions in the model, correct?

28 (Pages 109 to 112)

	Page 153		Page 155
1	questions at this time. Thank you for your patience,	1	A. I'm sorry, could you repeat the question?
2	Mr. Lisowski, Mr. Alexander.	2	Q. The modeling that you did in August.
3	MR. ALEXANDER: Thank you.	3	A. Yep.
4	Mr. Fisk, would you like to ask your	4	O. I believe you testified earlier that it
5	follow-up questions?	5	included an FES carbon price projection; is that
6	MR. FISK: Sure. Thank you.	6	correct?
7		7	A. That's correct.
8	FURTHER CROSS-EXAMINATION	8	Q. Okay. Did it include a projection of any
9	By Mr. Fisk:	9	other environmental compliance costs?
10	Q. First, I just wanted to clarify, I	10	MR. ALEXANDER: Objection, just the
11	believe your questions from Mr. Oliker you stated	11	phrase "environmental compliance costs." Go ahead
12	that the coal price projections were provided by	12	if you can answer.
13	Mr. Rose; is that correct?	13	A. Yeah. That's why I hesitated. What do
14	A. That's correct.	14	you mean by environmental compliance cost?
15	Q. Okay. And I just wanted to make sure was	15	Q. Compliance with potential future
16	that only for the Sammis plant? Was the OVEC ones	16	environmental regulations for coal ash or 316(b) or?
17	provided by OVEC?	17	A. So assuming additional O&M or capital
18	A. That's correct.	18	costs, there was no additional costs that were
19	Q. Okay.	19	projected in there.
20	A. That's correct.	20	Q. Okay. And is that - that's consistent
21	Q. Okay. And then following up on the last	21	with the how you did the modeling for this
22	set of questioning about the new the modeling that	22	proceeding?
23		23	A. That's correct.
24	you did for FES in August that looked out at least 15 years, did you use any capital cost projection for	24	MR. FISK: Okay. That's all I have on
24		2.9	Page 156
	Page 154		
1	FES's plants in that modeling?	1	the public record. 1 believe Madeline.
2	A. Yes.	2	MR. ALEXANDER: Ms. Fleisher, would you
3	Q. Okay, And was that capital cost	3	like to excuse me, Ms. Fleisher, I didn't mean to
4	projection different than the one you used in this	4	misspeak there, would you like to go next?
5	modeling for this proceeding?	5	MS. FLEISHER: Sure, yes, no problem. I
6	A. Maybe you should wait until the	6	
		100	think I have just a couple of questions.
7	confidential section since we are starting to get	7	
8	close to numbers and comparisons.	8	FURTHER CROSS-EXAMINATION
		8	FURTHER CROSS-EXAMINATION By Ms, Fleisher:
9 10	close to numbers and comparisons. MR. ALEXANDER: Okay. If you think the answer	8 9 10	FURTHER CROSS-EXAMINATION By Ms. Fleisher: Q. So I wanted to ask you about the August
8 9 10 11	close to numbers and comparisons. MR. ALEXANDER: Okay. If you think the	8 9 10 11	FURTHER CROSS-EXAMINATION By Ms. Fleisher: Q. So I wanted to ask you about the August projections you did that you have been discussing
8 9 10 11 12	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.	8 9 10 11 12	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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.
8 9 10 11	close to numbers and comparisons. MR. ALEXANDER: Okay. If you think the answer THE WITNESS: I can answer but.	8 9 10 11	FURTHER CROSS-EXAMINATION By Ms. Fleisher: Q. So I wanted to ask you about the August projections you did that you have been discussing
8 9 10 11 12 13 14	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.	8 9 10 11 12 13	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15	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.	8 9 10 11 12 13 14 15	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15	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	8 9 10 11 12 13 14 15 16	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15 16	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?	8 9 10 11 12 13 14 15 16	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15 16 17	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? MR. FISK: Sure. Can you read it back?	8 9 10 11 12 13 14 15 16 17 18	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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.
8 9 10 11 12 13 14 15 16 17 18	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?	8 9 10 11 12 13 14 15 16 17 18 19	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15 16 17 18 19 20	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? MR. FISK: Sure. Can you read it back?	8 9 10 11 12 13 14 15 16 17 18 19 20	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15 16 17 18 19 20 21	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? MR. FISK: Sure. Can you read it back? (Record read.) A. No. Q. Okay. And did the did the modeling	8 9 10 11 12 13 14 15 16 17 18 19 20 21	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15 16 17 18 19 20	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? MR. FISK: Sure. Can you read it back? (Record read.) A. No.	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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
8 9 10 11 12 13 14 15 16 17 18 19 20 21	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? MR. FISK: Sure. Can you read it back? (Record read.) A. No. Q. Okay. And did the did the modeling	8 9 10 11 12 13 14 15 16 17 18 19 20 21	FURTHER CROSS-EXAMINATION By Ms. Fleisher: 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

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1	provided by Witness Rose. The FES forecast that was	1	it actually matches the projected costs, you don't
2	run in August I ran was using FE's projections.	2	know if they do anything beforehand to verify their
3	Q. Okay. And in terms of just the basic	3	projection?
4	variable costs for the plants and any capital	4	A. I guess I am not understanding your
5	costs	5	question now then. Would you rephrase it?
6	A. I'm sorry. I cut you off. I didn't hear	6	Q. Sure. I will do my best. Apologies. So
7	that last part.	7	you said, if I understand you correctly, and sorry to
8	Q. Just going to repeat are those from the	8	paraphrase here, that one way they check the accuracy
9	same sources for each set of projections?	9	of cost is - one way the accuracy of the projections
10	A. Yes. So I heard you ask where did the	10	is check to see after the fact if they don't actually
11	O&M costs and some of the other costs enter in there.	11	match the expenditures. And what I am asking is do
12	Under both forecasts they were provided by FES.	12	you know if they do anything before that, before
13	Q. And when you say provided from FES, is	13	the before the actual expenditures are made to
14	there a particular - is that the business	14	verify the projections?
15	development unit, or is that some other entity within	15	A. Those individuals are going to go through
16	FES?	16	a number of quality checks. They are going to work
17	A. Business development is not in FES. It's	17	with the site operations. They are going to ensure
18	FirstEnergy Service Company group.	18	that their forecasts are as accurate as they possibly
19	Q. And do those - so I guess just as	19	can be.
20	follow-up, so is there some particularly	20	O. And if I I guess, first, I am just
21	particular entity within or group within FES that	21	going to verify my understanding of one of your
22	provides the cost projection?	22	previous answers. Is it correct that you stated that
23	A. If you look at page 3 of my testimony, on	23	when you were running your audited August
24	row 18 and 19, we talk about not just the operation	24	projections, that environmental compliance costs were
1	Page 158		Page 160
1	levels, but we do talk about that the O&M expenses,	1	not considered except for the carbon costs?
2	for example, operation and maintenance expenses, were		A. No. That's not what I said. I said that
3	provided by, you know, FES internal cost projections	3	the O&M and capital costs other than carbon were held
4	which was also provided in connection with the fossil	4	consistent with that FES projection in August with
5	and nuclear operations.	5	the assumption for those O&M and capital costs in the
6	Q. Okay. You know, are there personnel for	6	attachments of my testimony.
7	each plant that keep track of those? Is there some	7	Q. Okay. So, again, just to make sure I'm
8	particular group of people that keep track of it for	8	understanding you, what you are saying is they
9	all plants?	9	were environmental compliance costs are
10	A. We have we develop the forecasts at	10	incorporated into the cost projections to the same
11	each site level and there are persons that are	11	extent they are in your testimony here?
12	responsible for development of those budgets and	12	A. The underlying assumptions are consistent
13	forecasts at that site level.	13	in both the FES forecast that was developed
14	Q. And do you know what those people who are	14	internally and the testimony, my attached the
15	developing the cost forecasts, what, if anything,	15	attachments in my testimony, excuse me.
16	they do to to test the accuracy of the forecasts?	16	Q. And to the best of your knowledge, did
17	A. That's part of their core	17	that include any costs for compliance with future
18	responsibilities and their performance is going to be	18	ozone regulations?
19	measured in terms of the accuracy of those forecasts.	19	MR. ALEXANDER: Let's save discussion of
20	Obviously if a site overspends, that's going to be an	20	specific costs for the confidential portion.
21	issue for that site and it's going to be a reflection	21	MS. FLEISHER: Sure. Happy to do it.
22	on that person.	22	Q. I guess my one last question is you
23	Q. So you don't know in particular how	23	referred to the FES internal price forecasts. Who
24	they - you know, aside from after the fact seeing if	24	within FES comes up with those?

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1	Q. And you don't have a date on that, right?	1	periodic maintenance even though some of those
2	A. No, I do not remember.	2	maintenance activities are quite large in scope.
3	Q. Okay, okay. So but you're not sure if	3	Q. Okay. Do you know if any of the
4	those might have been part of the 1980 to '84	4	pollution controls on the Sammis plant are facing th
5	project?	5	need to have some of those large-in-scope projects
6	A. I'm not sure.	6	done to them?
7	Q. Okay. Fair enough. Do you know, do	7	A. I can remember generally some that are
8	environmental controls have a useful life after which	8	scheduled for maintenance in the next couple of
9	they typically would need to be replaced or rebuilt?	9	years.
10	A. It depends on the type of control.	10	Q. Okay. And what would those be?
11	Q. Okay. Do you know if any of the controls	11	A. I remember generally. I can't remember
12	that were installed in the 1980 to '84 range have	12	the specific components. I remember seeing them.
13	been replaced or rebuilt since then?	13	Q. Okay. And where did you see those?
14	A. 1 don't remember.	14	A. In our capital plans.
15	Q. Okay. Do you know if they would need to	15	Q. Okay. And what are those, the capital
16	be replaced or rebuilt sometime in the near future?	16	plans? Those are FENOC capital plans or whose
17	A. I do not remember.	17	capital plans?
18	Q. Okay. Have you ever looked at that	18	A. FirstEnergy Generation for Sammis.
19	issue?	19	Q. Okay. And how far out do those capital
20	A. What issue are you referring to?	20	plans go?
21	Q. Whether any of the existing controls on	21	A. I think five years.
22	the Sammis plant are getting to the age where they	22	Q. Five years, okay. And is it something
23	need to be rebuilt or replaced.	23	that's, you know, updated annually or, the capital
24	A. I have looked at information on some	24	plan?
	Page 94		Page 96
1	parts, at least some parts -	1	A. Yes. We review and update annually.
2	Q. Okay	2	O. Okay. And in your - this one I know I
3	A. — that have to be replaced on a	3	have.
4	periodicity.	4	MR. FISK: Could we mark this Exhibit 2.
5	Q. Okay. And do you know, do any of the -	5	(EXHIBIT MARKED FOR IDENTIFICATION
6	do any of the controls need to be replaced or	6	Q. You have been handed an exhibit marked
7	rebuilt?	7	Exhibit 2; is that correct?
8	A. There are items that periodically have to	8	A. Yes.
-	be either maintenance done on them or replaced, yes.	9	Q. Okay. And this exhibit is a response to
Q			Q. Only: This into branch is a response to
9		10	Sierra Club Set 4 Interrogatory 109: is that correct?
10	Q. Just specific parts of the controls.	10	Sierra Club Set 4 Interrogatory 109; is that correct?
10	Q. Just specific parts of the controls. A. Yes.	11	A. Yes.
10 11 12	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any	11 12	A. Yes. Q. Okay. And I realize you were not
10 11 12 13	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like well, is that that just kind of annual	11 12 13	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I
10 11 12 13 14	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like well, is that that just kind of annual maintenance and, you know, fixing up of controls that	11 12 13 14	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A
10 11 12 13 14	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like well, is that that just kind of annual maintenance and, you know, fixing up of controls that you would normally do?	11 12 13 14 15	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that?
10 11 12 13 14 15	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like well, is that that just kind of annual maintenance and, you know, fixing up of controls that you would normally do? A. Periodic maintenance.	11 12 13 14 15 16	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that? A. Yes.
10 11 12 13 14 15 16	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like well, is that that just kind of annual maintenance and, you know, fixing up of controls that you would normally do? A. Periodic maintenance. Q. Okay. But am I correct that in addition	11 12 13 14 15 16	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that? A. Yes. Q. Okay. And do you see the last sentence
10 11 12 13 14 15 16 17	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like well, is that that just kind of annual maintenance and, you know, fixing up of controls that you would normally do? A. Periodic maintenance. Q. Okay. But am I correct that in addition to that periodic maintenance, after some time period,	11 12 13 14 15 16 17	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that? A. Yes. Q. Okay. And do you see the last sentence of that response it says "Company Witness Harden
10 11 12 13 14 15 16 17 18	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like — well, is that — that just kind of annual maintenance and, you know, fixing up of controls that you would normally do? A. Periodic maintenance. Q. Okay. But am I correct that in addition to that periodic maintenance, after some time period, you may need to do like a major rebuild of a control?	11 12 13 14 15 16 17 18	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that? A. Yes. Q. Okay. And do you see the last sentence of that response it says "Company Witness Harden reviewed existing compliance measures and Sammis's
10 11 12 13 14 15 16 17 18 19 20	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like — well, is that — that just kind of annual maintenance and, you know, fixing up of controls that you would normally do? A. Periodic maintenance. Q. Okay. But am I correct that in addition to that periodic maintenance, after some time period, you may need to do like a major rebuild of a control? A. I guess we would have to talk about your	11 12 13 14 15 16 17 18 19 20	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that? A. Yes. Q. Okay. And do you see the last sentence of that response it says "Company Witness Harden reviewed existing compliance measures and Sammis's ability to comply with future environmental
10 11 12 13 14 15 16 17 18 19 20 21	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like — well, is that — that just kind of annual maintenance and, you know, fixing up of controls that you would normally do? A. Periodic maintenance. Q. Okay. But am I correct that in addition to that periodic maintenance, after some time period, you may need to do like a major rebuild of a control? A. I guess we would have to talk about your definition of a major rebuild.	11 12 13 14 15 16 17 18 19 20 21	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that? A. Yes. Q. Okay. And do you see the last sentence of that response it says "Company Witness Harden reviewed existing compliance measures and Sammis's ability to comply with future environmental regulations"?
10 11 12 13 14	Q. Just specific parts of the controls. A. Yes. Q. Okay. But I guess I'm talking about any like — well, is that — that just kind of annual maintenance and, you know, fixing up of controls that you would normally do? A. Periodic maintenance. Q. Okay. But am I correct that in addition to that periodic maintenance, after some time period, you may need to do like a major rebuild of a control? A. I guess we would have to talk about your	11 12 13 14 15 16 17 18 19 20	A. Yes. Q. Okay. And I realize you were not identified as a witness on this response, but I wanted to point you to the response to subsection A little No. 1. Do you see that? A. Yes. Q. Okay. And do you see the last sentence of that response it says "Company Witness Harden reviewed existing compliance measures and Sammis's ability to comply with future environmental

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Page 157		Page 159
A. I do not know.	1	me know, but in the past three years has FirstEnerg
	2	Solutions started deferring capital expenses at the
	3	Sammis plant?
	4	A. I have to say I don't know.
		Q. Okay. And in the past three years, has
		FirstEnergy Solutions started deferring capital
		expenditures at the Davis-Besse plant?
		A. Not to my knowledge.
		Q. Okay. If I could have just one minute, I
	1.115	think I might be done.
	1.693	Just to follow up on one issue that
		Mr. Fisk asked earlier, I just wanted to make sure I
		heard your answer correctly and, I'm sorry, maybe i
The same of the sa		was a bad question, you did not provide a projection
		of potential variable cost of operation expenses
		associated with carbon, correct?
	100	A. That's correct.
		Q. And you were not aware of any individual
	1000	providing any such projection for FirstEnergy
		Solutions.
	40.00	A. No.
	1000	MR. OLIKER: I believe those are all the
		questions I have. Thank you, Mr. Harden.
		MR. LANG: And next on my list I had
		Page 160
	-	
		Frank Darr.
		MR. DARR: Thank you.
		CROSS-EXAMINATION
		By Mr. Darr:
		Q. Mr. Harden, my name is Frank Darr, and I am here on behalf of Industrial Energy Users. If you
		would, please, turn to page 3 of your testimony and
		I'm looking at the paragraph beginning on line 14
	200	with regard to the steam generators. Please tell me when you're there.
		A. Yes, I'm there.
		Q. Could you indicate for us when the unit,
		by unit I mean Davis-Besse, was out of service for
		the replacement of the steam generators? A. I don't remember the exact dates.
		TOTAL TOTAL TOTAL TOTAL TOTAL CONTROL OF THE CONTRO
		Q. Can you give us a general range?
이 아들은 아이들은 사람들이 되었다면 아들은 아들은 아들은 아들은 아들은 아들은 아들이 아들이 없다면 하는데 아들은 아들이	19	 A. It was in the February to May timeframe. O. The generators that were replaced, is
A. No, I do not. Q. And just to be clear, now, if I ask that	20	there an expected life to the new units?
	21	
same question regarding capital expenditures, would	21	A. There would be a design life, not an expected life.
	21 22 23	expected life. Q. What is the design life of the new
	A. I do not know. Q. Okay. Moving on to a different subject, do you have responsibility or oversight regarding capital expenditures for FirstEnergy Solutions power plants, correct? A. No, not — not direct oversight for the capital expenditures. Q. But you are involved in the discussions, correct? A. I am involved in some discussions. Q. Okay. And are you involved in discussions regarding the operation and maintenance expenditures? A. Only to a limited degree, yes. Q. Okay. Would you agree that in 2012 FirstEnergy Solutions began to implement cost reduction measures at the power plant? A. What year did you say? Q. 2012. MR. LANG: And are we — I'm sorry, are we talking about Sammis? I wasn't clear on the question. Q. I'm starting from the broader level, and then I would go to Sammis, of course. Page 158 MR. LANG: So any FES plants? MR. OLIKER: Yes. MR. LANG: All right. Sorry, Joe. Go ahead. A. No, I wouldn't — I wouldn't agree a specific cost reduction was started in 2012. Q. In the past three years, has — has cost reduction measures been implemented at FES power plants? MR, LANG: Objection to the extent that it goes beyond the scope of his testimony regarding Sammis and Davis-Besse but answer, if you can. A. No specific reduction or reduction strategy to my knowledge. Q. And then my next question is kind of more focused based. You don't know of any specific cost reduction measures that have been implemented at the Sammis power plant in the past few years.	A. I do not know. Q. Okay, Moving on to a different subject, do you have responsibility or oversight regarding capital expenditures for FirstEnergy Solutions power plants, correct? A. No, not — not direct oversight for the capital expenditures. Q. But you are involved in the discussions, correct? A. I am involved in some discussions. Q. Okay. And are you involved in discussions regarding the operation and maintenance expenditures? A. Only to a limited degree, yes. Q. Okay. Would you agree that in 2012 FirstEnergy Solutions began to implement cost reduction measures at the power plant? A. What year did you say? Q. 2012. MR. LANG: And are we — I'm sorry, are we talking about Sammis? I wasn't clear on the question. Q. I'm starting from the broader level, and then I would go to Sammis, of course. Page 158 MR. LANG: So any FES plants? MR. OLIKER: Yes. MR. LANG: All right. Sorry, Joe. Go ahead. A. No, I wouldn't — I wouldn't agree a specific cost reduction was started in 2012. Q. In the past three years, has — has cost reduction measures been implemented at FES power plants? MR. LANG: Objection to the extent that it goes beyond the scope of his testimony regarding Sammis and Davis-Besse but answer, if you can. A. No specific reduction or reduction strategy to my knowledge. Q. And then my next question is kind of more focused based. You don't know of any specific cost reduction measures that have been implemented at the Sammis power plant in the past few years.

40 (Pages 157 to 160)

Paul Harden

	Page 173		Page 17
1	the contract to answer further than that.	1	numbers listed strike that.
2	Q. So then when you said it came from Ohio,	2	Do you know how many of the employees
3	what were you basing that upon?	3	listed in this document are residents of Ohio?
4	A. Knowing it's delivery from an entity in	4	A. No, I do not.
5	Ohio.	5	Q. Would you agree with me that the total
6	Q. In other words, it was delivered from an	6	number of employees at the W.H. Sammis plant have
7	Ohio company.	7	declined from 2009 to 2014?
8	A. Or from an entity that bad operations in	8	A. Yes.
9	Ohio.	9	Q. Can you explain why that number has
10	Q. But you do not know where it was	10	declined?
11	specifically mined though,	11	A. I can give several reasons. One is as we
12	A. No, I do not.	12	began operating all of the generating units more in a
13	MR. SCHULER: Could we go off the record	13	fleet approach than a station-by-station approach,
14	for a second?	14	more and more functions have been centralized where
15	MR, LANG: Sure,	15	central support group can provide a lot of the
16	(Discussion off the record.)	16	function rather than each individual site providing
17	MR. SCHULER: Back on the record. If I	17	its own function. And some of the reduction has been
18	could have the document that is OCC Set 11-INT-231	18	through attrition. There may be other reasons but
19	marked as OCC Exhibit 1.	19	those are what I can remember.
20	(EXHIBIT MARKED FOR IDENTIFICATION.)	20	Q. Okay. You mentioned a fleet approach.
21	Q. Mr. Harden, have you seen this document	21	Does that mean that some employees work at multiple
22	that is labeled as OCC Exhibit 1?	22	locations?
23	A. Yes.	23	A. That would mean there are employees that
24	Q. And you recognize this as a discovery	24	do work at multiple locations, so yes.
	Page 174		Page 176
40		9	O. Are any of the numbers on OCC Exhibit I
1	response based on a discovery request propounded by	2	representing those type of employees that work at
2	OCC7	3	multiple locations?
3	A. Yes.	4	A. I do not believe so.
5	Q. And you helped prepare this response,	5	Q. Do you have any projections of how many
6	correct?	6	employees will be at W.H. Sammis for the next 15
7	A. Yes.	7	years?
	Q. And the response that is provided here	8	A. No, I do not.
8	identifies the total number of employees that were	9	Q. What about for the next 10 years?
9	employed at the W.H. Sammis generation plant at the	10	A. No, I do not.
10	end of each year from 2009 to 2014?	11	Q. The next five?
11	A. Yes.	12	A. No. Typically I do not do forward
12	Q. What is your understanding of the term	13	projections on number of employees.
13	"employee"?	14	Q. Does anyone else do this type of
	A. Permanent FirstEnergy employees from what	15	projection in the company?
15 16	I remember when this was put together.	16	A. There are, I guess, not - there are
	Q. And those permanent FirstEnergy employees	17	expense projections that make assumptions on numbe
	would be located at the W.H. Sammis plant?	18	of employees but not a specific projection on number
17	A. Yes.	19	of employees. Out not a specific projection on number of employees.
17 18	O le that what there were been assessed	7.3	Q. I am not sure I understand the difference
17 18 19	Q. Is that what these numbers represent?	20	
17 18 19	A. Yes.	20	
17 18 19 20	A. Yes. Q. This does not include independent	21	there. Could you explain that to me?
17 18 19 20 21	A. Yes. Q. This does not include independent contractors, does it?	21 22	there. Could you explain that to me? A. I have not seen any explicit projections
17 18 19 20 21	A. Yes. Q. This does not include independent	21	there. Could you explain that to me?

44 (Pages 173 to 176)

	Page 177		- Page 179
1	which includes the salaries of employees.	1	organization in the prior discussion on OCC Exhibit
2	Q. And does that projection specifically	2	1. Are any of these employees subject to that same
3	delineate how many salaries are being paid out?	3	type of set up where they might work at multiple
4	A. None that I have seen. There's a total	4	locations?
5	but not a delineation.	5	A. None of the I guess let me answer this
6	O. Based on your recollection of those	6	way, none of the - none of the employees in the
7	projections, is that particular number declining on	7	numbers on this exhibit would be employees that due
8	the projections?	8	to the definition of their job function regularly
9	A. I do not know. The projections I've seen	9	support other stations. That doesn't mean they
10	have been a total expense projection and not just -	10	wouldn't from time to time be asked to go to one of
11	you know, salaries weren't delineated out.	11	the other stations but as a job function, these
12	O. Okay.	12	employees these numbers represent the employees
13	MR, SCHULER: At this time could I have	13	that most of their time is spent directly supporting
14	the other document OCC Set 11-INT-229 marked as OCC	14	the Davis-Besse site.
15	Exhibit 2.	15	Q. Does that include employees that would be
16	(EXHIBIT MARKED FOR IDENTIFICATION.)	16	based at the company headquarters?
17	MR. LANG: Okay. It has been marked.	17	A. No, no, it does not. And nor would it
18	MR. SCHULER: Thank you.	18	include the numbers of employees whose office is at
19	Q. Mr. Harden, do you recognize the document	19	Davis-Besse but are considered fleet employees that
20	that has been labeled as OCC Exhibit 2?	20	regularly support all the sites.
21	A. Yes.	21	Q. You said it does not include those?
22	Q. And you recognize this as a FirstEnergy	22	A. That is correct.
23	response to an OCC discovery request?	23	Q. Thank you. Do you know how many of thes
24	A. Yes.	24	employees reside in Ohio?
	Page 178		Page 180
1	Q. And did you help prepare this particular	1	A. No. I don't.
2	response?	2	Q. And would you agree with me that the
3	A. Yes, I did.	3	number of employees at the Davis-Besse plant decline
4	Q. And the response asks to "identify the	4	from 2009 to 2014?
			See See A. Court of the Art of the Court of
	total number of employees that were employed at the	2	A. Yes.
5	total number of employees that were employed at the	5	A. Yes. Can you explain why that is?
5	Davis-Besse generation plant at the end of each year	6	Q. Can you explain why that is?
5 6 7	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct?	6	 Q. Can you explain why that is? A. I can explain in part. I'm not sure I
5 6 7 8	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct.	6 7 8	 Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar
5 6 7 8 9	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the	6 7 8 9	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis.
5 7 8 9	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and	6 7 8 9	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a
5 6 7 8 9	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct?	6 7 8 9 10	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by
5 6 7 8 9 10 11	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct.	6 7 8 9 10 11	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated
5 6 7 8 9 10 11 12 13	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located	6 7 8 9 10 11 12 13	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is
5 6 7 8 9 10 11 12 13	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant?	6 7 8 9 10 11 12 13 14	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that
5 6 7 8 9 10 11 12 13 14	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees.	6 7 8 9 10 11 12 13 14 15	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital
5 6 7 8 9 10 11 12 13 14 15 16	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees. It would not include contractors.	6 7 8 9 10 11 12 13 14 15 16	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital investment that was made that results in the need for
5 6 7 8 9 10 11 12 13 14 15 16 17	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees. It would not include contractors. Q. None of these numbers include independent	6 7 8 9 10 11 12 13 14 15 16 17	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital investment that was made that results in the need for less employees.
5 6 7 8 9 10 11 12 13 14 15 16 17 18	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees. It would not include contractors. Q. None of these numbers include independent contractors?	6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital investment that was made that results in the need for less employees. Q. Going forward will there be a continued
5 6 7 8 9 10 11 12 13 14 15 16 17 18	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees. It would not include contractors. Q. None of these numbers include independent contractors? A. That's correct.	6 7 8 9 10 11 12 13 14 15 16 17 18 19	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital investment that was made that results in the need for less employees. Q. Going forward will there be a continued effort on efficiency?
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees. It would not include contractors. Q. None of these numbers include independent contractors? A. That's correct. Q. And maybe I should clarify my prior	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital investment that was made that results in the need for less employees. Q. Going forward will there be a continued effort on efficiency? A. There will always be a continuous look
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 22 1	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees. It would not include contractors. Q. None of these numbers include independent contractors? A. That's correct. Q. And maybe I should clarify my prior question. Of the numbers listed here do all of those	6 7 8 9 10 11 12 13 14 15 16 17 18 19	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital investment that was made that results in the need for less employees. Q. Going forward will there be a continued effort on efficiency? A. There will always be a continuous look for methods of improving efficiency.
5 6 7 8	Davis-Besse generation plant at the end of each year from 2009 to 2014," correct? A. That is correct. Q. And the response provides numbers for the total nuclear group, special projects, security, and engineering personnel, correct? A. That is correct. Q. Are these all employees that are located at the Davis-Besse plant? A. This would be all FirstEnergy employees. It would not include contractors. Q. None of these numbers include independent contractors? A. That's correct. Q. And maybe I should clarify my prior	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Can you explain why that is? A. I can explain in part. I'm not sure I can be all inclusive. Some of the similar explanation I used on the numbers for the Sammis plant apply here in that since 2009, there's been a more concentrated effort on the efficiencies game by continuing to improve functions that can be operated fleetwide as opposed to site specific. And there is some attrition in those numbers and some of that reduction is likely attributed to some of the capital investment that was made that results in the need for less employees. Q. Going forward will there be a continued effort on efficiency? A. There will always be a continuous look

45 (Pages 177 to 180)

	Page 181		Page 183
1	Q. You said that you couldn't answer the	1	A. That is correct.
2	question all inclusively. Why is that?	2	Q. Okay. And in your discussions with him,
3	A. Because there may be reasons that I can't	3	did you discuss the substance of the CSAPR rule?
4	remember sitting here.	4	A. Yes, to some extent. I can't -
5	Q. Fair enough.	5	Q. Okay. And did – sorry. Did you discuss
6	A. Yeah. I gave you the ones I could	6	the fact that it's designed to ensure compliance with
7	remember.	7	particular National Ambient Air Quality Standards?
8	Q. I can't ask for more than that. Do you	8	A. Yes, we did discuss that.
9	have any projections of how many employees will be at	9	Q. And if I refer to those as NAAQS going
10	the Davis-Besse plant in the future?	10	forward, will you understand what I mean?
11	No specific projections.	11	A. Yes.
12	Q. Do you have the same expense projections	12	Q. Great, And did you discuss which NAAQS
13	that we discussed with regard to the W.H. Sammis	13	the CSAPR rule was designed to ensure compliance
14	plant?	14	with?
15	A. Yes.	15	A. Yes, we did.
16	Q. That does not delineate the specific	16	Q. Did you discuss the fact that those NAAQS
17	number of employees.	17	may change in the future?
18	A. It does not.	18	A. Yes, we did.
19	Q. And those projections are based on the	19	Q. And did you discuss whether the
20	approval of rider RRS?	20	requirements under CSAPR might change in the future
21	MR. LANG: Objection.	21	if those NAAQS would change?
22	A. No. Those projections are our internal	22	 A. We discussed that possibility, yes.
23	projections of, you know, the required expenses for	23	Q. And did you discuss whether Sammis would
24	continuing to operate the plant.	24	continue to be in compliance with CSAPR if the
	Page 182		Page 184
1	MR. SCHULER: All right. I have no	1	those NAAQS become more stringent?
2	further questions for the public record. Thank you	2	A. Yes, we did have discussions on that.
3	very much, Mr. Harden.	3	Q. And did you reach any conclusions over
4	MR. LANG: Next on the list is Madeline	4	the course of those discussions?
5	Fleisher.	5	A. Yes.
6	MS. FLEISHER: Yes, okay. I should not	6	Q. And what were your conclusions?
7	have too much.	7	MR. LANG: I don't know if this is
8	nave too mach.	8	confidential but
9	CROSS-EXAMINATION	9	THE WITNESS: I don't believe so.
10	By Ms. Fleisher:	10	MR. LANG: Okay
11	Q. Let's go ahead and get started.	11	A. I will stay out of confidential. At
12	Mr. Harden, my name is Madeline Fleisher. I	12	least I believe I can stay out of confidential space.
13	represent the Environmental Law & Policy Center. And	13	We discussed that we believe Sammis will continue to
14	I just wanted to ask you a few questions to follow up	14	be in compliance for what we know on the horizon
15	on your discussion with Mr. Fisk about the compliance	15	today, and we also discussed the essence of cap and
16	of the Sammis CSAPR. And do you understand when I	16	trade and in the and the ability to purchase
17	refer to CSAPR, that's the Cross-State Air Pollution	17	allowances if needed.
18	Rule, correct?	18	Q. Okay. A couple of follow-up questions
19	A. Yes.	19	about that answer. When you said that you believe
20	Q. And you - could you just confirm my	20	Sammis would remain in compliance for what you know
21	understanding of your testimony that you discussed	21	on the horizon today, does - what is it that you
	CSAPR compliance with Mr. Jurusik?	22	know is on the horizon or what were you referring to
22			
22	A. Yes.	23	with that answer?

46 (Pages 181 to 184)

	Page 213		Page 21
1 have ye	2012	1	A. Well, generally speaking we purchase
	That is correct, I have not.	2	uranium. We purchase services to convert the uraniu
	On page 2, still line 21, you talk about	3	to uranium hexafluoride. After that, we purchase
	ployees and contractors for Davis-Besse.	4	services to enrich the uranium. Once it's been
	do you know the breakdown of employees versus	100	enriched, we purchase services to fabricate that into
6 contrac		6	fuel assemblies which are then shipped to the site
	Not off the top of my head. However,	7	and placed in the reactor during refueling outages.
	as an exhibit we discussed this morning that	8	Q. Okay. All three of those you used the
	number that are FirstEnergy employees so 740	9	word services but those are all considered the fuel?
	that number which, looking at OCC Exhibit 2	10	A. Yes, The sum of all of those items
	at listed 672 so it would be the difference	11	would - the cost of the sum of all of those items
	72 to 740. So approximately 68 contractors it	12	would go into the calculation of the fuel expense.
3 looks l		13	Q. Okay, And can you tell me
	Okay. And you talk on line 23 about a	14	nonconfidentially are these purchased from the state
	planned outage. Are you talking about the	15	of Ohio or outside the state of Ohio?
	ng outage that's planned?	16	A. Yeah. I would rather speak to that in
	Yes, that is what I mean by a typical	17	the confidential section because providing a state
	i outage.	18	would identify would identify specific entities.
9 Q.	Okay And it was my understanding from	19	Q. Okay. We can come back to that then.
0 yesterd	ay that was a little confusing, but I thought	20	And would your answers be the same with regard to -
1 that hap	opened every two years, and I think you say	21	you explained a process. That process is something
2 that on	page 3; is that right? It happens every two	22	that's done and then brought to the site, so I am
3 years?		23	assuming the process occurs offsite; is that right?
4 A.	For Davis-Besse the refueling outages are	24	A. That is correct. All of the all of
	Page 214		Page 21
1 approx	cimately every two years.	1	the different steps that I mentioned occur off the
	And two years, they operate for two years	2	premises and only the completed final fuel product is
	e was one in 2012 and then there is one in	3	supplied to the site.
	What's the timing? How does that work?	4	Q. Okay, okay. We will come back to that
	Yes. They are approximately two years	5	then as well. Could you now turn to page 4 of your
	So if there was one in '12, the next one	6	testimony. And on line 20 it starts on 16 you
	be expected to be in '14.	7	are talking about the Davis-Besse operating license
	At the end of '14. It's expected to	8	and you said that - you talk about the renewal
8 0		100	
	e almost two years before you have one?	9	application that was filed back in August, 2010. Has
9 operat	e almost two years before you have one? Yes. But, I mean, there's some leeway	10	application that was filed back in August, 2010. Has it been approved yet since your filing?
9 operat	Yes. But, I mean, there's some leeway		it been approved yet since your filing?
 9 operat 0 A 1 there. 	Yes. But, I mean, there's some leeway It can be plus or minus some amount of time,	10	it been approved yet since your filing?
9 operate 0 A. 1 there. 2 not pre	Yes. But, I mean, there's some leeway It can be plus or minus some amount of time, exisely two years.	10 11	it been approved yet since your filing? MR. LANG: Objection, asked and answered.
9 operate 0 A. 1 there. 2 not pre 3 Q.	Yes. But, I mean, there's some leeway It can be plus or minus some amount of time, exisely two years. Okay. Can you turn to the next page,	10 11 12	it been approved yet since your filing? MR. LANG: Objection, asked and answered. A. No, it has not.
9 operate 0 A. 1 there. 2 not pre 3 Q. 4 page 3	Yes. But, I mean, there's some leeway It can be plus or minus some amount of time, exisely two years. Okay. Can you turn to the next page,	10 11 12 13	it been approved yet since your filing? MR. LANG: Objection, asked and answered. A. No, it has not. Q. I apologize if I missed these. Did you explain when you expect it to be approved? A. In general terms I explained that we
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9 operation A. 1 there. 2 not pres 3 Q. 4 page 3 A. 6 Q. 7 spent of page 3 page 4 page 3 A. 6 Q. 7 spent of page 3	Yes. But, I mean, there's some leeway It can be plus or minus some amount of time, exisely two years. Okay. Can you turn to the next page, Yes. On line I you talk about \$180 million on fuel. Where does that fuel for Davis-Besse	10 11 12 13 14 15 16 17	it been approved yet since your filing? MR. LANG: Objection, asked and answered. A. No, it has not. Q. I apologize if I missed these. Did you explain when you expect it to be approved? A. In general terms I explained that we expect the final steps to occur later this year that would enable approval.
9 operation A. 1 there. 2 not pres 3 Q. 4 page 3 A. 6 Q. 7 spent of page 3 page 4 page 3 page 4 page 3 page 3 page 4 page 3 page 3 page 4 page	Yes. But, I mean, there's some leeway It can be plus or minus some amount of time, exisely two years. Okay. Can you turn to the next page, Yes. On line I you talk about \$180 million on fuel. Where does that fuel for Davis-Besse	10 11 12 13 14 15 16 17	it been approved yet since your filing? MR. LANG: Objection, asked and answered. A. No, it has not. Q. I apologize if I missed these. Did you explain when you expect it to be approved? A. In general terms I explained that we expect the final steps to occur later this year that would enable approval. Q. Okay. And so is the what's the
9 operation A. 1 there. 2 not pres 3 Q. 4 page 3 5 A. 6 Q. 7 spent c come 1	Yes. But, I mean, there's some leeway It can be plus or minus some amount of time, exisely two years. Okay. Can you turn to the next page, Yes. On line I you talk about \$180 million on fuel. Where does that fuel for Davis-Besse	10 11 12 13 14 15 16 17 18 19	it been approved yet since your filing? MR. LANG: Objection, asked and answered. A. No, it has not. Q. I apologize if I missed these. Did you explain when you expect it to be approved? A. In general terms I explained that we expect the final steps to occur later this year that would enable approval. Q. Okay. And so is the what's the typical duration of the approval process?
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	Page 217		Page 219
1	approved, the time durations have varied sometimes	1	MS. BOJKO: Thank you,
2	significantly. And it largely depends on whether	2	Q. Mr. Harden, on page 5 of your testimony,
3	there is intervention and contentions and whether	3	you also talk about Sammis fuel and you talk about
4	hearings are required.	4	Ohio coal. Are you suggesting here that - well,
5	Q. So I guess ask it a different way, is it	5	where is the remaining amount of fuel procured from?
6	typical that you would file your renewal application	6	MR. LANG: Objection.
7	seven years prior to the expiration of the license?	7	A. It would be any one of a number of places
8	A. I guess it's typical to file it far in	8	that any more specific would be confidential.
9	advance and there's actually some requirements for	9	Q. Okay. But you're suggesting that
10	the amount of time you have to do in advance, but it	10	52 million is spent each year on Ohio coal so is it
11	has been typical if you look at most plants across	11	fair to assume that the remaining amount of the 460
12	the United States to have done it far in advance.	12	is outside of Ohio? Or I guess, I'm sorry, I am
13	O. Okay. And so when would the 20-year	13	mischaracterizing your testimony, 1 think the 460
14	renewal occur? Would it be from the date that you	14	relates to all of those items; is that right?
15	filed in 2010 or is it 20 years from the expiration	15	A. That is correct.
16	of the current license or is it from the date of	16	Q. Okay. So do you know how much fuel is
17	renewal approval? Do you know?	17	spent outside of the state of Ohio?
18	A. Yes. It is 20 years additional from the	18	A. Not off the top of my head, no.
19	date of the current license expiration.	19	Q. Do you know what the total of the
20	Q. Okay. If you could go down to page 5,	20	breakdown is of just fuel costs are?
21	line I1, I am going to ask you the same question,	21	MR, LANG: That's confidential if you
22	maybe you could refer to that chart again, what's the	22	know.
23	breakdown of the Sammis employees versus contractors?	23	A. Yeah. It would be confidential, but I do
24	Is that on your chart you referred to a minute ago?	24	not know from memory.
	Page 218		Page 220
Í	A. It's on a different exhibit. It was on	1	O. Well, I think you stated earlier today,
2	Exhibit OCC 1, showed the number of FirstEnergy	2	hopefully I am not getting that mixed up with
3	employees at Sammis. And line 11 of my testimony	3	yesterday's deposition, but you did explain different
4	shows 400 employees and contractors and that's an	4	coalmines that you procure coal from, didn't you?
5	approximate value. OCC Exhibit I shows 338 employees	5	A. Not that I remember in specificity.
6	as of November of last year. So the difference	6	Q. Okay, okay. Let's turn to let's talk
7	between those two gives you a rough idea. Just over	7	about OVEC a little bit now and that's on page 8 of
8	60 is a rough idea of the number of contractors.	8	your testimony and as I understand it, you do not
9	Q. Okay.	9	have any management oversight or your fleet engineers
20	MR. LANG: Hey, Kim, we are looking for a	10	do not work on OVEC; is that correct?
11	break time, but I don't want - if you are close to	11	A. That is correct.
12	done, I prefer that you finish up. Do you know how	12	Q. So where did you obtain the information
13	much time more time you have?	13	regarding OVEC for this testimony?
14	MS. BOJKO: I would just say 15 minutes,	14	A. It could have come from a number of
15	10 or 15 minutes.	15	places including the ICPA that's referenced as well
16	MR. LANG: Okay. Thar's a little bit	16	as their annual report.
17	longer than I was hoping but we are - we are going	17	Q. So did you actually look at the ICPA and
18	to take a 10-minute break and come back at 10 minutes	18	annual report?
19	after 3, I guess 12 minutes after 3.	19	A. Yes, I did.
20	MS. BOJKO: Okay, Thanks.	20	Q. So when you said "it could have come," I
21	MR. LANG: All right.	21	guess are you saying somebody else prepared this and
22	(Recess taken.)	22	it could have come from there, or you actually looked
23	MR. LANG: We can go back on the record,	23	at those and drafted the testimony off of those
24	and you can go ahead.	24	documents?

55 (Pages 217 to 220)

	Page 37		Page 39
1	Q. Okay. The term of the PPA which would be	1	A. No.
2	through 2031, correct?	2	Q. Okay. And then the variable fuel costs
3	A. No, through May 31 of 2031.	3	for the OVEC units were provided by OVEC; is the
4	Q. Okay. May 31, 2031, okay. And so you	4	correct?
5	project - you input projections of the variable	5	A. Some of them were.
6	operating costs for the Sammis units into the model;	6	Q. Okay. Which ones were?
7	is that correct?	7	 A. The fuel and fuel-related expenses.
8	A. Yes.	8	Q. Okay.
9	Q. And where did those projections come	9	A. Coal in particular were provided by OVEC
10	from?	10	and that's what we used.
11	A. Look at starting on page 4 of my	11	Q. Were there other other variable costs
12	testimony, row 22, we talk about Sammis where the	12	for OVEC that were not provided by OVEC?
13	inputs for the fuel costs were provided by Company	13	A. Yes.
14	Witness Rose.	14	Q. Which ones were those?
15	Q. Okay. And did you do anything to assess	15	A. Company Witness Rose provided a carbon
16	whether those projections from Company Witness Rose	16	assumption and a carbon price that was used as an
17	were reasonable?	17	input.
18	A. I just used what he provided me.	18	Q. Okay. And that carbon price was provided
19	Q. Okay. So you don't have any opinions	19	for by Mr. Rose for also for Sammis; is that
20	regarding whether those projections are reasonable or	20	correct?
21	not?	21	A. That's correct.
22	A. I do not.	22	Q. And did - did you personally do anything
23	O. Okay. And then I guess turning over to	23	to evaluate whether Mr. Rose's carbon price
24	page 5 of your testimony, the nuclear fuel and other	24	projection was reasonable?
	Page 38		Page 40
1	fuel-related expenses were forecasted using internal	1	A. No.
2	forecasts; is that correct?	2	O. Okay. Are you offering any opinions
3	A. That's correct.	3	regarding the reasonableness of his price projection
-		4	A. No.
4	Q. Okay. And do you know who did those		
4 5	internal forecasts?	5	MR. ALEXANDER: Can we take a brief
4 5 6	internal forecasts? A. Again, those are items we have regularly	5 6	MR. ALEXANDER: Can we take a brief break?
4 5 6 7	internal forecasts? A. Again, those are items we have regularly available within the model that FES would evaluate	5 6 7	MR. ALEXANDER: Can we take a brief break? MR. FISK: Go off.
4 5 6 7 8	internal forecasts? A. Again, those are items we have regularly available within the model that FES would evaluate whether they are appropriate or not.	5 6 7 8	MR. ALEXANDER: Can we take a brief break? MR. FISK: Go off. (Discussion off the record.)
4 5 6 7 8 9	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	5 6 7 8 9	MR. ALEXANDER: Can we take a brief break? MR. FISK: Go off. (Discussion off the record.) Q. Okay. And the variable fuel costs
4 5 6 7 8 9	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?	5 6 7 8 9	MR. ALEXANDER: Can we take a brief break? MR. FISK: Go off. (Discussion off the record.) Q. Okay. And the variable fuel costs projection that you received from OVEC, did you do
4 5 6 7 8 9 10	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	5 6 7 8 9 10	MR. ALEXANDER: Can we take a brief break? MR. FISK: Go off. (Discussion off the record.) Q. Okay. And the variable fuel costs projection that you received from OVEC, did you do anything to evaluate the reasonableness of that
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4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	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	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. ALEXANDER: Can we take a brief break? MR. FISK: Go off. (Discussion off the record.) Q. Okay. And the variable fuel costs projection that you received from OVEC, did you do anything to evaluate the reasonableness of that projection? A. No. Q. Okay, okay. And then Mr. Rose also provided to you projected capacity prices; is that correct? A. Yes. Q. Okay. And did you do anything to evaluate the reasonableness of those capacity price projections?
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	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.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. ALEXANDER: Can we take a brief break? MR. FISK: Go off. (Discussion off the record.) Q. Okay. And the variable fuel costs projection that you received from OVEC, did you do anything to evaluate the reasonableness of that projection? A. No. Q. Okay, okay. And then Mr. Rose also provided to you projected capacity prices; is that correct? A. Yes. Q. Okay. And did you do anything to evaluate the reasonableness of those capacity price projections? A. No.
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10 (Pages 37 to 40)

	Page 65		Page 67
1	MR. FISK: First, general category,	1	also used this model to project out even longer term
2	MR. ALEXANDER: Okay. The concern is	2	including the years in this PPA for, again, not just
3	these are internal FES proprietary forecasts, and I	3	the Sammis, Davis-Besse, and FES's share of OVEC bu
4	don't want to get too far down that path so I	4	all of FES's assets and generation plants.
5	understand, I think, where you are getting. Let's	5	Q. In separate modeling from what you
6	just be cognizant of that.	6	presented in this proceeding?
7	MR. FISK: Sure. We can punt to the	7	A. No. It was using the same dispatch
8	afternoon.	8	model.
9	MR. ALEXANDER: Even in the afternoon 1	9	 Same dispatch model but different runs.
10	would have objection to non-PPA forecasts if you ask,	10	A. Different - different inputs were used.
11	but we can cross that bridge when we come to it.	11	Q. Okay. And to your knowledge have any of
12	MR, FISK: We can deal with that then.	12	those modeling runs been presented to any of the
13	A. Make sure I clarify, your question was	13	parties in this proceeding?
14	when - what kind of forecasts has FES done since the	14	A. My understanding is using FES's
15	PPA?	15	projections, they've been provided to the Sierra
16	O. Yeah.	16	Club.
17	A. What the forecast is going to be for is	17	MR_ FISK: Can we go off?
18	the competitive business of the FirstEnergy Solutions	18	(Discussion off the record.)
19	for over the next couple of years.	19	Q. We can go back on. So you're saying that
20	Q. Okay. Any other projections?	20	there were different modeling runs using different
21	A. No.	21	inputs, but your belief is those were presented to
22	Q. Okay. Have you modeled the projected	22	the Sierra Club?
23	operation of any of the Sammis plant or any of the	23	A. My understanding was there was a subpoena
24	Sammis units since your testimony in this proceeding?	24	by the Sierra Club requesting that information.
	Page 66		Page 68
1	A. No.		Q. Okay. And outside of that, outside of
-		1	O. Okay. And outside of that, outside of
		2	whatever may have been produced in the response to
2	Q. Okay. And have you projected revenues or	2	whatever may have been produced in the response to
2	Q. Okay. And have you projected revenues or costs for any of the Sammis units since your	2	whatever may have been produced in the response to that subpoena, were there any other modeling runs
3 4	Q. Okay. And have you projected revenues or costs for any of the Sammis units since your testimony in this proceeding?	3	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
3 4 5	Q. Okay. And have you projected revenues or costs for any of the Sammis units since your testimony in this proceeding? A. No.	2	whatever may have been produced in the response to that subpoena, were there any other modeling runs
2 3 4 5 6	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	2 3 4 5 6	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?
2 3 4 5 6 7	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	2 3 4 5 6 7	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.
2 3 4 5 6 7 8	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?	2 3 4 5 6 7 8	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. Q. Okay. And when did you do the modeling
2 3 4 5 6 7 8 9	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.	2 3 4 5 6 7 8 9	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. Q. Okay. And when did you do the modeling that you presented in this proceeding in your
2 3 4 5 6 7 8 9	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?	2 3 4 5 6 7 8 9	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. Q. Okay. And when did you do the modeling that you presented in this proceeding in your testimony?
2 3 4 5 6 7 8 9 10	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	2 3 4 5 6 7 8 9 10	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. 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
2 3 4 5 6 7 8 9 10 11 12	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	2 3 4 5 6 7 8 9 10 11 12	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. 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
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2 3 4 5 6 7 8 9 10 11 12 13	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.	2 3 4 5 6 7 8 9 10 11 12	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. 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.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	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 —	2 3 4 5 6 7 8 9 10 11 12 13 14	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. 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?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	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.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	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. 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.
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	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.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	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. 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
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	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?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	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. 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
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	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	2 3 4 5 6 7 8 9 10 11 12 13 14 15 17 18 19 20	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. 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
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	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?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	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. 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?

17 (Pages 65 to 68)

Page 69 Page 7
Okay We'll talk about those in the 1 back?
n. Those are probably confidential. 2 (Record read.)
They are. 3 A. Those forecasts, what do you mean by
Yes, so we will get to those. But the 4 those forecasts? We are talking about a lot of
was those were done more recently than the 5 forecasts here. I want to make sure we are clear.
g that you did for the testimony you presented 6 Q. The four-year, near-term forecasts that
ay. 7 you mentioned in the last few minutes, were any o
Yes. 8 those forecasts presented to any of the parties in
Okay. And the near-term, four-year 9 this proceeding?
nately forecasts that you referenced earlier, 10 MR. ALEXANDER: Same objection.
ere done more recently than your testimony in 11 A. Those clarify, those four-year
eeding? 12 forecasts that were run around the late August time
Those were done at around the same – 13 period, somewhere in that area; is that correct?
riod of time, may have been a little bit later 14 That's what you are asking me?
ould have been in that same time period. 15 Q. Yes, yes.
And did those use different inputs than 16 A. Not that I am aware of, no.
s what was used in modeling in this 17 Q. Okay. All right. Any other modeling
ing? 18 runs that you have done with regards to the Sammi
MR. ALEXANDER: Objection. Go ahead. 19 Davis-Besse, or OVEC units in the past year?
Which inputs? 20 A. We as I mentioned already, PES
Any of the inputs that you used in 21 continually will look at its plants, reforecast all
Page 70 Page 7
MR. ALEXANDER: Objection. Go ahead. 1 would have been forecasts that were done prior in the
Well, near term, remember, we've got 2 normal course of FES's business.
periods so this starts June 1 of 2016, so 3 Q. Within the past year.
alking there would only be an overlap of a 4 A. Within the past year, yes.
a half. Notwithstanding the forecast that 5 Q. Were you involved in any of those?
ave been run around that time period — period 6 A. Yes.
would have been consistent assumptions used, 7 Q. Okay. And did any of those use
imptions, as we used in the longer-term 8 assumptions from Mr. Rose?
1 run. 9 A. No.
Okay. But the four-year forecast did not 10 Q. So did they all use FES assumptions?
Rose's assumptions. 11 A. When FES is forecasting, it is always
MR. ALEXANDER: Objection. Go ahead. 12 going to use their own internal projections.
FES's the four-year projections were 13 Q. So then why why did you decide to use
FES forecasting. They would have been based 14 Mr. Rose's assumptions in the modeling for this
assumptions and inputs, so they did not use 15 proceeding when normally you forecast using FES's
ose's inputs. 16 A. 1 didn't 1 didn't decide that.
Okay. And to your knowledge have any of 17 Q. Do you know who did?
r-year forecasts been produced to any of the 18 A. 1 was
this proceeding? 19 MR. ALEXANDER: Objection.
fR. ALEXANDER: Objection both to form 20 A. 1 don't know who decided to use it. 1
rance. 21 was asked to run the forecast using Mr. Rose's
What do you mean by can you repeat the 22 projections.
Q. And who who who asked you to use

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1	A. I can't think of an example.	1	to repeat. I didn't catch it. I want to make sure I
2	Q. Have you ever - have you ever put	2	heard it all.
3	different assumptions into the model?	3	MS. FLEISHER: Sure.
4	A. Different from what?	4	(Question read.)
5	Q. From - have you ever run the model twice	5	MR. ALEXANDER: Objection. Go ahead.
6	in any situation using different assumptions to see	6	A. I don't know. I don't know the answer to
7	how it came out?	7	that.
8	A Not that I recall.	8	MS. FLEISHER: Okay, I think that's all
9	Q. So for every every time you've used	9	I have. Thanks.
10	the model that you can recall, you have input a	10	MR. ALEXANDER: Thank you. Would anyone
11	single set of assumptions, come out with a result,	11	else like to ask questions of Mr. Lisowski in the
12	and that's the result you've used.	12	public portion of the transcript?
13	A. In every case that I can recall, that's	13	MR. SETTINERI: Yes. This is Mike
14	correct.	14	Settineri with RESA. I don't know if anybody else
15	Q. Can you recall any other instances in	15	also has questions.
16	which you've accepted input for the model from a	16	MR. ALEXANDER: Okay. Mike, go ahead.
17	third party?	17	MR. SETTINERI: Thank you, Trevor.
18	A. Not that I recall.	18	
19	Q. And when you received the inputs from	19	CROSS-EXAMINATION
20	Mr. Rose, you said that you accepted those and	20	By Mr. Settineri:
21	plugged them into the model; is that correct?	21	Q. Good morning, Mr. Lisowski. My name is
22	A. Into the model that was used for this	22	Mike Settineri on behalf of the Retail Energy Supply
23	for my testimony, that's correct.	23	Association. How are you?
24	Q. Okay. Is there some other model that you	24	A. I am doing well. Good morning to you as
	Page 118		Page 120
14			ation W
1	would have plugged them into?	1	Q. I want to just cover a few areas here but
2	A. I'm sorry, I am not following you. Can	2	going - following up on some of the questions that
3	you repeat the question?	3	were just asked regarding the model, I think you had
4	Q. Sorry. You seem to be specific that it		mentioned that you — at any time FES needs a
5	was into the model that you used for your testimony.	5	long-term forecast that that model would be used; is
6	I just was wondering if there is some other model	6	that correct? This is the proprietary dispatch model
7	that you had in mind.	7	that correct? This is the proprietary dispatch model
100	and the second s	0	that as form and in your testimony
8	A. No. We - we have one model that - that	8	that's referenced in your testimony.
9	we use for long-term forecasting and that was the	9	that's referenced in your testimony. A. That's correct.
9 10	we use for long-term forecasting and that was the same model used in my testimony.	9 10	that's referenced in your testimony. A. That's correct. Q. Okay. And in comparing those modeling
9 10 11	we use for long-term forecasting and that was the same model used in my testimony. O. Okay. Great. That was my understanding	9 10 11	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
9 10 11 12	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	9 10 11 12	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
9 10 11 12 13	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?	9 10 11 12 13	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
9 10 11 12 13 14	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.	9 10 11 12 13 14	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?
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30 (Pages 117 to 120)

	Page 25		Page 27
2 3	seven-day timeframe, it's more economic to run it	1	Q. But if you have unit A that has a
2 1	through those couple of hours of uneconomic operation	2	variable operating cost of X and then you have unit I
	in general.	3	that has a variable operating cost of X plus 1, and
4	O. Okay. So you take - you take a	4	PJM is looking at both of those units, I recognize
	seven-day snapshot generally speaking when deciding	5	this is a very - very, very simplified hypothetical,
6	how to make offers into PJM?	6	whether unit I gets dispatched or not will depend on
7	A. Yes.	7	part of what the costs of unit 2 are, correct?
8	Q. Okay. But PJM itself, when it's making	8	A. Ignoring must-run status, ignoring
9 1	the ultimate dispatch decisions, does that on an	9	production tax credits that may come into play,
10	hourly basis; is that correct?	10	ignoring all those other market realities, yes.
11	A. If it's economically offered into the	11	Q. Okay. Those are good caveats.
	market, yes.	12	A. Because it's how the market works.
13	O. As opposed to must run?	13	Q. And with respect to FES's generating
14	A. Correct.	14	units, the dispatch of those units into PJM is
15	Q. Okay. And leaving aside reliability	15	because of the market affected by the costs and
16 i	issues or, you know, transmission constraints, PJM	16	conditions of units outside of the FES fleet,
17	will dispatch the available unit that has the lowest	17	correct?
18	variable operating cost; is that correct?	18	A. Oh, yes.
19	A. No.	19	Q. Okay. Again, without delving into
20	Q. And why is that not correct?	20	specifics of bid strategy, to be sensitive of
21	A. A must-run unit will be dispatched as	21	confidentiality and related issues, do you make
22 1	well, may be dispatched at its minimum but it will be	22	decisions about whether FirstEnergy about whether
	dispatched as well.	23	FES's units are bid into the capacity market?
24	Q. So if we let's carve out for a moment	24	A. Yes. Well, no, because unless you put in
-	Page 26		Page 28
			the state of the same and the first
	must-run units which I know that could be a big carve	1	a deactivation notice, you have a must offer
2	out.	2	requirement into the capacity market, so short of
3	A. Could be a significant portion of the	3	deactivating a unit, you don't really have a choice.
	market.	4	Q. What about with respect to the capacity auctions, like the base residual auction, are you
5	Q. With respect to units that are offered	5	
	economically	6	responsible for those bids?
7	A. Yes.	7	 A. Yes, those offers. Q. Okay. And what are your specific
8	Q does PJM dispatch those based on the	8	responsibilities with respect to retail load
	one that has the lowest variable operating cost?	9	forecasting and retail structuring and pricing?
10	A. Yes.	10	A. We have in my organization a load
11	Q. Okay. And do you think it's fair to say	11	forecasting group that — that projects based upon
12	in general the dispatch of different generating units	12	the load we serve every day into PJM what that loa
	into PJM is affected by the costs of other generating	13	the load we serve every day into Frivi what that row
	units on the grid?	14	is going to be because you have to not only offer your load but offer your generation as well. And so
15	A. No.	15	
16	Q. And why is that wrong?	16	that's load forecasting. And then from a structuring and pricing
17	A. It's affected by their fuel cost, their	17	standpoint, we develop all the costing as well as all
18	variables costs, and where they line up on the supply	18	the margin associated with retail offers that we put
19	stack. Then it becomes based on their costs relative	19	the margin associated with retail offers that we put
	to other operating units on the grid.	20	in front of retail customers for the sales force. Q. Okay. And you also have responsibility
21	Q. Okay. So apart from - so we have the	21	for wholesale transactions; is that correct?
	aspect of a unit's own variable operating costs,	22	
	right?	23	A. Yes. Q. And what are those specific
24	A. Yeah.	24	Q. And what are diose specific

7 (Pages 25 to 28)

	Page 33		Page 35
1	Q. And you don't report to anyone at Toledo	1	A. No.
2	Edison?	2	Q. And you don't report to anyone at
3	A. No.	3	FirstEnergy service company.
4	Q. And no one at Toledo Edison reports to	4	 A. No. I report to Don Schneider.
5	you.	5	Q. Okay. And no one from the service
6	A. That's correct.	6	company reports to you, correct?
7	Q. And you don't communicate with anyone	7	A. That's correct.
8	from Toledo Edison with respect to	8	Q. All right. Do you communicate with any
9	FirstEnergy-related business.	9	employees of the service company?
10	A. That's correct.	10	A. Yes.
11	Q. Okay. And just for the record in your	11	Q. I suspect that would be hard to avoid.
12	appearance today you are appearing on behalf of those	12	A. Right.
13	three companies; is that correct?	13	Q. And who who do you communicate with
		14	from the service company?
14	A. Yes. Q. Okay. Not on behalf of FES.	15	A. Well, our legal support
15	Q. Okay. Not on behalf of the con babalf	16	O. Okay.
16	A. I'm employed by FES, but I am on behalf	17	A is from the service company. Some of
17	of the companies.	18	the markets support is through the service company
18	Q. Okay. Thank you. Are you familiar with	19	Some of the external affairs folks I keep in contact
19	the regulated generation group within FirstEnergy	20	with that are from the service company as well.
20	Corporation?	21	Q. And I'm sorry. I think you told me this
21	A. Yes.	22	before, but could you explain again the external
25	Q. And do you know who the director of that	23	affairs folks, what are their responsibilities?
23	group is?	24	A. It varies. There is different parts of
24	A. The director, I believe that's Jay	24	Page 36
	Page 34		
1	Ruberto.	1	the group. Some are local affairs. Some are federal
2	Q. Okay. And in your current position do	2	and - federal affairs in Washington, D.C. So
3	you communicate with Mr. Ruberto?	3	o committee and in a relevanthing with
- 3			Q. So generally speaking relationships with
		4	entities outside of FirstEnergy Corp.
4	A. Rarely, if ever.	4 5	entities outside of FirstEnergy Corp. A. Yes.
5	A. Rarely, if ever. O. Okay. Do you communicate with any other		entities outside of FirstEnergy Corp.
5 6	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group?	5	entities outside of FirstEnergy Corp. A. Yes.
4 5 6 7	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time.	5	entities outside of FirstEnergy Corp. A. Yes. Q. Okay, Got it. Just like the name sounds. A. Right.
4 5 6 7 8	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with	5 6 7	entities outside of FirstEnergy Corp. A. Yes. Q. Okay, Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business
4 5 6 7 8 9	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time?	5 6 7 8	entities outside of FirstEnergy Corp. A. Yes. Q. Okay, Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business
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4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Rarely, if ever. Q. Okay. Do you communicate with any other employees from the regulated generation group? A. Jim Haney I see from time to time. Q. Okay. And what do you discuss with Mr. Haney when you see him from time to time? A. Could you be more specific? What are you looking for? Q. Apart from a casual encounter with Mr. Haney, do you meet with him? A. We — we are on some committees together from time to time, and I'll see him in our generation study team. Q. Okay. Do you discuss the marketing or dispatch of generating units with Mr. Haney? A. No. Q. Okay. In your current position do you do	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	entities outside of FirstEnergy Corp. A. Yes. Q. Okay. Got it. Just like the name sounds. A. Right. Q. Are you familiar with the business development department at FirstEnergy Corporation? A. Yes. Q. Okay. And does that department provide any services to FES? A. Yes. Q. Okay. And what services? A. They will do asset evaluations, both considering whether we want to purchase something of whether we want to sell something, and they also are the keepers of our long-term price forecast. Q. And when you say "our long-term price

9 (Pages 33 to 36)

	Page 37		Page 39
1	regulated generation group?	1	come up.
2	A 1 don't know.	2	Q. Okay. If we could talk for a minute
3	Q. Okay. When you say "asset evaluation,"	3	about those long-term price forecasts.
4	are you referring to plants specifically or other	4	A. Sure.
5	types of assets?	5	Q. So apart from anything related to this
6	A. Really it's mostly plants, but it could	6	proceeding, FES has a long-term price for
7	be other types of assets as well, right? We own a	7	long-term energy price forecast, correct?
8	Norton facility which is a compressed air storage	8	A. Yes.
9	potential location. That's something that the	9	Q. Okay. And a capacity price forecast?
10	business development team would evaluate. It's not a	10	A. Yes.
11	plant.	11	Q. Okay.
12	Q. Okay. So apart from asset evaluations	12	MR. SOULES: Just to allay any worries
13	and the long-term price forecast, does business	13	am not going to ask any specific numbers.
14	development provide any other services to FES?	14	MR. LANG: Okay.
15	A They support us on some of our purchases	15	MR. SOULES: I am trying to be very
16	of RECs.	16	cognizant.
17	Q. And, I'm sorry, RECs are renewable	17	A. Yes. Those are highly proprietary.
18	A. Renewable energy credits, yes.	18	Q. Yes, yes, I understand. And who
19	O. Okay. Anything else?	19	specifically prepares those forecasts?
20	A. Not that I can remember right now.	20	A. I don't know.
21	Q. Okay. And who is the head of the	21	Q. Okay.
22	business development group?	22	A. It's housed in business development, bu
23	A. That's Dave Pinter.	23	I don't know who specifically calculates them I
24	Q. Okay. And do you have - do you have a	24	know some are internal and some are externally
	Page 38		Page 4
1	sense of generally speaking what types of expertise	1	sourced through Dave Pinter's group.
2	that department has?	2	O. Okay. But the price forecasts are
3	A. Economic modeling.	3	prepared by business development, not by FES itsel
4	Q. Okay. Does business development do all	4	correct?
5	the economic modeling for FES?	5	A. That's correct.
6	A. No.	6	Q. And do you know what those price
7	Q. Okay. Who else does modeling for FES?	7	forecasts are used for?
8	A. We do some of it internally.	8	A. Yes.
9	Q. Okay. And are you referring to dispatch	9	Q. And what are they used for?
10	modeling when you refer to modeling or broader?	10	A. A variety of things.
11	A. Broader than that.	11	O. Okay. Can you give me some examples?
12	Q. Okay. And what else would that include?	12	A. Valuation of units in our in our
13	A. It could include gas market modeling.	13	fleet, valuation of assets that we're considering to
14	Q. Okay. Anything else?	14	purchase.
15	A. Energy market modeling.	15	Q. Okay
16	Q. Okay, okay	16	A. Any number of things. If it interfaces
17	A. Things that are relevant to our commodity	17	with a commodity market, that would be at least on
18	business.	18	of the inputs into its valuation.
make that	Q. Okay. Thank you. Any other modeling	19	O. Okay. And FES uses these price forecasts
19	beyond what you just mentioned?	20	for generation dispatch modeling as well; is that
19	04) 2112 11111 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21	correct?
20	A. It would be on a case-by-case basis. We		
20 21	 A. It would be on a case-by-case basis. We have some folks with strong analytical capabilities 	22	 We do sometimes, yes.
20	A. It would be on a case-by-case basis. We have some folks with strong analytical capabilities in FirstEnergy Solutions so there are times when we	22 23	A. We do sometimes, yes. Q. Okay. Under what circumstances do you use those forecasts for modeling purposes?

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	Page 41		Page 43
1	A. For a long-term dispatch. Generation	1	views depending upon what your belief is the way the
2	dispatch modeling is something we do on a daily basis	2	economy is going to go. So there's a range of
3	seven days, pretty short-term stuff.	3	outputs that could be - could be determined based on
4	Q. Right. But if you are doing the	4	a long-term price forecast based on your view what
5	long-term forecast, then you would use these price	5	the future holds.
6	projections.	6	Q. Okay. So if you - if FES were
7	A. Yes, something beyond four years where	7	interested in doing some kind of long-term revenue
8	you have visibility to energy future prices.	8	analysis, business development would be capable of
9	Q. Okay. So the price forecast extends	9	giving you, say, a case based upon a higher energy
10	beyond four years; is that correct?	10	price as well as a case based upon a lower energy
11	A. Yes.	11	price; is that correct?
12	Q. Okay. Do you know how far out they	12	A. They would give us a range basically.
13	extend?	13	Q. Okay. Do you have a sense of how many
14	A. No.	14	different how strike that.
15	O. Do you know if they extend out beyond 10	15	And is it the same situation with respect
16	years?	16	to capacity prices where business development would
17	A. Yes.	17	be capable of giving you a range of?
18	O. And they do?	18	A. 1 don't know
19	A. Yes.	19	Q. Okay. But certainly for energy prices.
20	Q. Okay. Do you know if they extend out	20	A. Yeah.
21	beyond 15 years?	21	Q. Apart from the work that business
22	A. I'm not positive but I believe they do.	22	development does in terms of long-term forecasting,
23	Q. Okay. With respect to the sort of	23	am I correct that FES itself does some long-term
24	longer-term analyses that FES performs, how	24	forecasting as well internally?
	Page 42		Page 44
1	frequently are those analyses performed?	1	A. No.
2	A. Not very frequently.	2	Q. Okay. So anything that's far forward
3	Q. Okay. Can you give me a ballpark figure?	3	looking you would go to business development.
4	A. It would be event based, right, on a	4	A. Yes.
5	case-by-case basis.	5	Q. Okay. Does FES ever commission any
6	Q. They are not regularly updated?	6	outside parties to do forecasts?
7	A. The business development group regularly	7	A. Not forecasts.
8	updates their price forecasts, but I don't know what	8	Q. Okay. How about to do modeling, dispatch
9	kind of a cadence or what regular schedule they are	9	modeling?
10	on to reevaluate assets, for example.	10	A. Yes.
11	Q. Okay. Do you know when the price	11	Q. Okay. And what circumstances?
12	forecasts were most recently updated?	12	A. Associated with capacity market
13	A. Within the last year.	13	evaluations but it's not a specific dispatch model.
14	Q. Can you be more specific?	14	Q. Okay, All right.
15	A. I can't remember off the top of my head.	15	 A. Also for hedging analysis determining
16	Q. Okay. But they are fairly current it's	16	what our right balance of of sales channels should
17	fair to say.	17	be for our portfolio, portfolio management. We
18	A. Yes.	18	engage outside support for some of that as well
19	Q. Do you know, is there only one set of	19	because we don't have the capability internally.
20	price projections? Are there multiple sets of	20	Q. But none of that outside work involves
21	projections?	21	modeling the dispatch of generating units; is that
22	 A. There are different projections for 	22	correct?
23	different commodities but there is really one	23	A. The portfolio analysis would have a
24	long-term price forecast and there are different	24	sample dispatching associated with it that feeds into

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	Page 45		Page 47
1	it.	1	Q. You know business development factors in
2	O. Okay.	2	the CO-2 prices; you don't know if they disaggregate
3	A. But it's not a specific output that says	3	that into
4	this is what you are going to dispatch.	4	A. Correct.
	Q. Okay. And FES also has long-term CO-2	5	Q. Okay. Got it. Thank you. Are you
5	price forecasts as well; is that correct?	6	familiar with the proposed agreement under which FES
7	A. Business development would support us	7	would sell its capacity, energy, and ancillary
8	with anything that's long term. Some of these	8	services to Ohio Edison Company, Cleveland Electric
9	markets are kind of emerging right now with CASPR	9	Illuminating Company, and Toledo Edison Company?
10	showing up again so.	10	A. Yes.
11	Q. Right.	11	Q. Okay. And the assets that would be the
12	A. A lot of that is factored into the	12	subject of the proposed agreement, the Sammis plant,
13	long-term price forecast already, the cost of CO-2.	13	the Davis-Besse plant, and FES's share of the OVEC
14	for example.	14	plants, correct?
15	Q. Okay. And business development would	15	A. Yes.
16	maintain any CO-2 price forecast on FES's behalf,	16	Q. Okay. If I refer to that proposed
17	correct?	17	agreement as the proposed transaction, will you
18	A. Yes.	18	understand what I mean?
19	O. Okay. And with respect to the CO-2	19	A. Yes, I will.
20	prices, is it the kind of situation where business	20	Q. Okay. Great. And if I refer to our
21	development would be able to give you a high CO-2	21	little tric of actually big tric of utilities as
22	case and low CO-2 case if you were doing a long-term	22	the companies, will you understand what I mean?
23	revenue analysis?	23	A. Yes, I will.
24	A. I don't know if they have got a high or	24	Q. Great. Do you know whether or not FES
27	Page 46		Page 48
		1	and the companies have executed a final purchase
1	low. I know they have it factored in.	2	power agreement for this proposed transaction?
2	Q. Okay. And do you know how far out those	3	A. We have not. We have a term sheet.
3	price forecasts extend?	4	Q. Okay. And the companies and FES have not
4	A. Not specifically but as we went through	5	yet put together a draft of the PPA, correct? They
5	the ladder before, greater than 15 years.	6	only have the term sheet; is that correct?
- 67	Q. Okay, okay. And how about with respect		
7	to future coal prices, does business development have	7	A. That's correct.
7	a set of price projections for coal?	7	A. That's correct. Q. Okay. All right. Are you familiar with
7 8 9	a set of price projections for coal? A. I don't know. We'll use industry indices	7 8 9	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies
7 8 9	a set of price projections for coal? A. I don't know. We'll use industry indices for that.	7 8 9	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission?
7 8 9 10 11	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay, Can you give me an example of an	7 8 9 10	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes.
7 8 9 10 11 12	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index?	7 8 9 10 11 12	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally
7 8 9 10 11 12 13	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts.	7 8 9 10 11 12 13	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it?
7 8 9 10 11 12 13 14	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right.	7 8 9 10 11 12 13	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our
7 8 9 10 11 12 13 14 15	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal.	7 8 9 10 11 12 13 14 15	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and
7 8 9 10 11 12 13 14 15	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price	7 8 9 10 11 12 13 14 15 16	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with
7 8 9 10 11 12 13 14 15 16 17	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price that we were talking about a moment ago, business	7 8 9 10 11 12 13 14 15 16 17	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with the transaction that you mentioned previously.
7 8 9 10 11 12 13 14 15 16 17 18	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price that we were talking about a moment ago, business development has its own — has a separate projected	7 8 9 10 11 12 13 14 15 16 17 18	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with the transaction that you mentioned previously. Q. Okay. So rider RRS and the proposed
7 8 9 10 11 12 13 14 15 16 17 18	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price that we were talking about a moment ago, business development has its own — has a separate projected CO-2 price; is that correct?	7 8 9 10 11 12 13 14 15 16 17 18 19	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with the transaction that you mentioned previously. Q. Okay. So rider RRS and the proposed transaction are the two components of the economic
7 8 9 10 11 12 13 14 15 16 17 18 19 20	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price that we were talking about a moment ago, business development has its own — has a separate projected CO-2 price; is that correct? A. I don't know if it's separate or if it's	7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with the transaction that you mentioned previously. Q. Okay. So rider RRS and the proposed transaction are the two components of the economic stability program; is that accurate?
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price that we were talking about a moment ago, business development has its own — has a separate projected CO-2 price; is that correct? A. I don't know if it's separate or if it's included in their long-term price forecast.	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with the transaction that you mentioned previously. Q. Okay. So rider RRS and the proposed transaction are the two components of the economic stability program; is that accurate? A. Yes.
7 8 9 10 11 12 13 14 15 16 17 18 19 20	a set of price projections for coal? A. I don't know. We'll use industry indices for that. Q. Okay. Can you give me an example of an industry index? A. BOYD has price forecasts. Q. All right. A. ICE has price forecasts for coal. Q. And I guess to clarify the CO-2 price that we were talking about a moment ago, business development has its own — has a separate projected CO-2 price; is that correct? A. I don't know if it's separate or if it's	7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. That's correct. Q. Okay. All right. Are you familiar with the economic stability program that the companies proposed to the Commission? A. Yes. Q. Okay. And what is that generally speaking as you understand it? A. It's an update or a renewal of our previous economic economic stability program, and it also includes rider RRS which is associated with the transaction that you mentioned previously. Q. Okay. So rider RRS and the proposed transaction are the two components of the economic stability program; is that accurate?

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	Page 97		Page 99
,	A. No.	1	reflecting that evaluation?
2	Q. That's not your understanding?	2	A. No.
	A. That's correct.	3	Q. And has FES evaluated whether the OVEC
3	Q. Okay. And why - why is that incorrect?	4	units would qualify?
4	A. The assumption is unless you have an	5	A. Yes.
5	exemption in the capacity performance proposal you	6	Q. Okay. And, yes, there was an evaluation,
6	have to prove that you cannot qualify as a capacity	7	or yes?
7	performance product to the independent market	8	A. Yes, there was an evaluation.
8	monitor. Otherwise, you have a must offer	9	Q. Okay. And that - what was - is it
		10	FES's understanding that those units would qualify
10	requirement. Q. Okay. So it's assumed then unless you	11	A. Yes.
11		12	Q. Okay. Was there a written report
12	can prove otherwise.	13	reflecting that evaluation?
13	A. Correct -	14	A. No.
14	Q. Okay.	15	Q. Okay. We may come back to that a little
15	A or you have an exemption.	16	bit in the afternoon, but I don't want - I want to
16	Q. Or you have an exemption. And do you	17	be sensitive to the
17	know what those exemptions are?	18	A. Sure.
13	A. They are listed in the proposal but, for	19	Q. So just a few more questions. Earlier
19	example, pumped hydro storage.		you were describing sort of the short-term four-ye
20	Q. Okay. Has FES evaluated whether the	20	forecast that FES performs. Do you recall that
21	Sammis units would qualify as a capacity	21	discussion
22	performance would qualify as capacity performance	22	
23	resources?	23	A. Yes. Q where business development would
24	MR. LANG: To the extent you are	24	
	Page 98		Page 10
1	getting you might be able to answer this question,	1	handle something that was longer term; is that
2	but to the extent you are getting into a confidential	2	correct?
-		~	COTTOCK:
2		3	A. Yes.
3	area, let us know.		A. Yes. O. Okay. Does FES have a four-year
4	area, let us know. THE WITNESS: All right.	3	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant
4 5	area, let us know. THE WITNESS: All right. A. Yes.	3 4 5	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well. I think those have been provided
5	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that.	3 4 5 6	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements.
4 5 6 7	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes.	3 4 5 6 7	 A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. O. The profit and loss statements.
4 5 6 7 8	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. O. Okay. And, again, if we tread into	3 4 5 6	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant.
4 5 6 7 8 9	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know.	3 4 5 6 7 8 9	 A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant.
4 5 6 7 8 9	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we	3 4 5 6 7 8 9	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom?
4 5 6 7 8 9 10	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion	3 4 5 6 7 8 9 10	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony.
4 5 6 7 8 9 10 11	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion.	3 4 5 6 7 8 9 10 11	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor
4 5 6 7 8 9 10 11 12 13	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR. LANG: Right.	3 4 5 6 7 8 9 10 11 12 13	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimon reparding a 15-year evaluation; is that correct?
4 5 6 7 8 9 10 11 12 13	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR. LANG: Right. Q. Okay. Well, I will ask this, and if we	3 4 5 6 7 8 9 10 11	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection
4 5 6 7 8 9 10 11 12 13 14 15	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR. LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written	3 4 5 6 7 8 9 10 11 12 13 14 15	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that,
4 5 6 7 8 9 10 11 12 13 14 15 16	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR. LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written report of that evaluation?	3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that, they use market forwards because that's the best
4 5 6 7 8 9 10 11 12 13 14 15 16 17	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR. LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written report of that evaluation? A. No.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that, they use market forwards because that's the best
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written report of that evaluation? A. No. O. Okay. Same question with respect to	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that, they use market forwards because that's the best information available and then the long-term price
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written report of that evaluation? A. No. Q. Okay. Same question with respect to Davis-Besse, do you know whether Davis-Besse would	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant. A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimon regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that, they use market forwards because that's the best information available and then the long-term price forecast transitions for the out years.
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR. LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written report of that evaluation? A. No. Q. Okay. Same question with respect to Davis-Besse, do you know whether Davis-Besse would qualify as a capacity performance resource?	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that, they use market forwards because that's the best information available and then the long-term pric forecast transitions for the out years. Q. Okay. So with respect to that the pear years, the near term years, is it your
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written report of that evaluation? A. No. Q. Okay. Same question with respect to Davis-Besse, do you know whether Davis-Besse would qualify as a capacity performance resource? A. Yes, I do know.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that, they use market forwards because that's the best information available and then the long-term pric forecast transitions for the out years. Q. Okay. So with respect to that the pear years, the near term years, is it your
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	area, let us know. THE WITNESS: All right. A. Yes. Q. Okay. FES has evaluated that. A. Yes. Q. Okay. And, again, if we tread into something that is confidential, please, you know. A. I think if we get into specifics, we might want to save that for the confidential portion of the discussion. MR. LANG: Right. Q. Okay. Well, I will ask this, and if we need to punt it, we can. Did FES prepare a written report of that evaluation? A. No. Q. Okay. Same question with respect to Davis-Besse, do you know whether Davis-Besse would qualify as a capacity performance resource?	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Yes. Q. Okay. Does FES have a four-year projection of the profitability of the Sammis plant A. Well, I think those have been provided already. Those are the profit and loss statements. Q. The profit and loss statements. A. Yeah, for the Sammis plant. Q. Okay. And it's your understanding that those have been provided to whom? A. Through Jason Lisowski's testimony. Q. Okay. Jason Lisowski provided testimor regarding a 15-year evaluation; is that correct? A. Yeah, but in that 15-year projection there is the first four years. In order to do that, they use market forwards because that's the best information available and then the long-term price forecast transitions for the out years. Q. Okay. So with respect to that the

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	Page 101		Page 103
1	Q. Okay. And do you know what price	1	Corporation - if anyone within FirstEnergy
2	projections Mr. Lisowski used in preparing his	2	Corporation has an internal asset evaluation of the
3	15-year forecast?	3	Sammis units?
4	A. I don't.	4	A. I don't know,
5	Q. Okay. Do you know so you don't know	5	Q. Okay. Do you know if anyone within
6	whether or not FES's the energy the energy	6	FirstEnergy Corporation has an asset evaluation of
7	capacity and CO-2 price forecasts that FES regularly	7	the Davis-Besse plant?
8	use, you don't know whether or not those were used by	8	A. Well, there would be there would be a
9	Mr. Lisowski for his projections?	9	book value that business development would have fo
10	A. That's correct.	10	Davis-Besse and Sammis but other than that, I don't
11	Q. Okay. You had mentioned earlier that FES	11	know.
12	does some forecasting of capacity prices working with	12	Q. Okay, okay. Sorry I am skipping around
13	an entity outside of business development; is that	13	here a little bit. Just trying to get done as quick
14	correct?	14	as we can. So cycling back for a moment to the
15	A. Yes.	15	period before you had that initial conversation with
16	Q. And who is that forecaster?	16	James Haney in May, 2014, do you recall that
17	THE WITNESS: It's a contract with an	17	discussion?
Table 1	outside firm. Can I answer it?	18	A. Yes.
19	MR. LANG: Could be confidential to your	19	Q. Okay. And you had said that before
20	business.	20	approaching Mr. Haney you and three others at FES
21	THE WITNESS: Right.	21	were looking at profit and loss statements for the
22	A. Can we save that for the confidential	22	FES generating units; is that correct?
	portion?	23	A. Yes.
24	O. Absolutely, absolutely, yeah. Apart	24	Q. Okay. And when you were looking at those
	Page 102		Page 104
		1	statements, were you evaluating what the terms of the
	from I'm sorry. Stepping back to before	2	PPA with the companies might ultimately look like?
2	Mr. Lisowski's price forecast or, you know, his	3	A. Could you rephrase that question?
3	revenue analysis that was provided to the companies,	4	O. Sure. So we so Exhibit 1 is the term
	apart from that does FES have a purely internal	5	sheet, right, which reflects the proposed
5	four-year forecast for the profitability of its	6	transaction.
6	units?	7	A MANAGE AND
7	A. No.		A. Yes, yes. Q. And that term sheet is a culmination of a
8	Q. Okay. And you had mentioned earlier that	8	Q. And that term sheet is a cummation of a
	FES prepares his occasionally prepared asset	9	process that began shortly after New Year's of 2014,
10	evaluations of certain units in the regular course of	10	correct?
11	its business; is that correct?	11	A. Yes.
12	A. Actually that's not correct. It's	12	Q. Okay. Prior to - when you were looking
13	business development will	13	at these earlier profit and loss statements thinking
14	Q. Oh, okay.	14	about approaching the companies, were you thinking
15	A perform those evaluations.	15	about, you know, what the term of the proposed
16	Q. Okay. Because those are the longer-term	16	transaction might look like or might be?
	evaluations that FES doesn't have the internal	17	A. Yes. As I mentioned, 15 years was what
18	capability to?	18	Q. Oksy. And you had also mentioned after
19	A. Not only that. FES's function isn't	19	Q. Okay. And you had also mentioned after
20	asset evaluation.	20	the initial discussion with Mr. Haney but before making the specific proposal for Sammis, Davis-Besse
21	Q. Okay. The business development asset	21	and the OVEC share, FES had prepared a PowerPoint
	evaluations, are those prepared at FES's request?	22	
23	A. From time to time, yes.	23	presentation? A. No. That was after I got a letter back
24	Q. Okay. Do you know if FirstEnergy	24	A. INO. THAT WAS ALLET I BUT A TELLET DACK

26 (Pages 101 to 104)

	Page 53		Page 55
1	I forwarded to legal counsel.	1	recollection, the only instructions that the EDU team
2	Q. Okay. So then all the notes that you	2	was given were those provided verbally to you by
3	took throughout the evaluation process, you took	3	Ebony Yeboah?
4	because of the instructions of legal counsel?	4	 Those were the initial instructions. I
5	A. The creation of the notes, yes,	5	can't say we didn't talk to anybody during the
6	Q. Okay.	6	three-month period. So I'm reluctant to say that is
7	A. Yes, those notes were, yes.	7	the only time anybody ever gave any any
8	Q. Including the notes that you took on May	8	instruction, but that certainly was the initial
9	20th?	9	instructions.
10	A. I don't think I said May 20th, though.	10	Q. Okay. Okay. So to the best of your
11	Q. Didn't you tell me that you took notes	11	recollection, the EDU team performed its
12	during the May 20th conference call?	12	responsibilities without any written instructions or
13	A. I don't recall saying there was a May	13	guidance; is that correct?
14	20th conference call. The team was formed on May	14	A. I don't remember any written
15	20th, and I did set up a conference call.	15	instructions.
16	O. Oh.	16	Q. Did the EDU team receive assistance from
17	A. I don't recall that I don't recall	17	any outside experts in evaluating the proposed
18	that it was on May 20th.	18	transaction?
19	Q. Okay. So it may have been a few days	19	A. Can I ask what you mean by "evaluating"
20	after?	20	O. So I think well, your direct
21	A. I don't I don't know the date of it,	21	testimony discusses an evaluation process that the
22	yes, yes.	22	EDU team undertook, correct?
23	Q. Okay. But on that conference call that	23	A. (Nods head.)
24	occurred soon after the formation of the team, you	24	Q. During that evaluation process, did the
	Page 54		Page 56
1	took notes?	1	EDU team engage any outside consultants or experts t
2	A. Yes.	2	consider the benefits and disadvantages of the
3	Q. Okay. And those notes were the only	3	proposed transaction?
4	reason you took those notes was because of the	4	A. There was an outside consultant that
5	directions of legal counsel?	5	provided information that was used for the
6	A. Legal counsel asked that I record those	6	evaluation.
7	notes for that meeting, and I did.	7	Q. And do you - who was that outside
8	O. Okay. Thank you.	8	consultant?
	Apart from the - the verbal directions	9	A. Rose.
9			
9		10	O. Judah Rose?
10	that you were provided by Ebony Ebola (sic)? I'm	10	Q. Judah Rose? A. Yes.
10 11	that you were provided by Ebony Ebola (sic)? I'm sorry.		
10 11 12	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah.	11	A. Yes. Q. Okay. And what information did Mr. Rose
10 11 12 13	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the	11 12	A. Yes.
10 11 12 13	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that.	11 12 13	A. Yes. Q. Okay. And what information did Mr. Rose provide?
10 11 12 13	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here.	11 12 13 14	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the
10 11 12 13 14 15	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here. BY MR. SOULES:	11 12 13 14 15	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the 15-year term.
10 11 12 13 14 15 16	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here. BY MR. SOULES: Q. So apart from the verbal instructions	11 12 13 14 15 16	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the 15-year term. Q. And when you say "market prices," do you
10 11 12 13 14 15 16 17	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here. BY MR. SOULES: Q. So apart from the verbal instructions that she provided you in mid to late May, were there	11 12 13 14 15 16	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the 15-year term. Q. And when you say "market prices," do you mean market energy prices?
10 11 12 13 14 15 16 17 18	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here. BY MR. SOULES: Q. So apart from the verbal instructions that she provided you in mid to late May, were there any other directions provided to the EDU team?	11 12 13 14 15 16 17 18	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the 15-year term. Q. And when you say "market prices," do you mean market energy prices? A. Yes.
10 11 12 13 14 15 16 17 18 19 20	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here. BY MR. SOULES: Q. So apart from the verbal instructions that she provided you in mid to late May, were there any other directions provided to the EDU team? A. No.	11 12 13 14 15 16 17 18	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the 15-year term. Q. And when you say "market prices," do you mean market energy prices? A. Yes. Q. And market capacity prices? A. Correct,
10 11 12 13 14 15 16 17 18 19 20 21	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here. BY MR. SOULES: Q. So apart from the verbal instructions that she provided you in mid to late May, were there any other directions provided to the EDU team? A. No. Q. Okay. Were there any — do you recall	11 12 13 14 15 16 17 18 19 20	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the 15-year term. Q. And when you say "market prices," do you mean market energy prices? A. Yes. Q. And market capacity prices?
10 11 12 13 14 15 16 17 18 19 20	that you were provided by Ebony Ebola (sic)? I'm sorry. A. Yeboah. Q. Yeboah. Sorry, there's too much in the news. Yeboah. Okay. Sorry about that. MS. DUNN: Good thing she's not in here. BY MR. SOULES: Q. So apart from the verbal instructions that she provided you in mid to late May, were there any other directions provided to the EDU team? A. No.	11 12 13 14 15 16 17 18 19 20 21	A. Yes. Q. Okay. And what information did Mr. Rose provide? A. He projected the market prices for the 15-year term. Q. And when you say "market prices," do you mean market energy prices? A. Yes. Q. And market capacity prices? A. Correct. Q. And carbon prices?

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	Page 57		Page 59
1	A. Those those were the main ones that	1	services to both FES and to regulated generation?
2	were the basis of calculating the benefits for the	2	A. They can.
3	customers, but obviously his the information he	3	Q. Okay. And are you aware of whether or
4	provided was much more voluminous than just a couple	4	not they - that department specifically has its own
5	numbers.	5	set of price projections?
6	Q. Yeah, yeah. Having looked at his	6	A. I don't know.
7	testimony, I can agree it's more voluminous.	7	Q. Okay. So apart from the members of the
8	A. Yes.	8	EDU team, and Mr. Thorn, and Ms. Morrow, and Juda
9	Q. Did the did the EDU team retain	9	Rose, was there anyone else that helped assist in
10	Mr. Rose to provide those figures?	10	evaluating the proposed transaction on behalf of the
11	A. No.	11	companies?
12	Q. Do you know who did?	12	A. Again, can you can you rephrase that
13	A. The companies did, but the EDU team	13	and clarify what you're asking?
14	specifically did not.	14	Q. Sure. So the members of the EDU team,
15	Q. Okay. Do you know why the companies	15	including maybe for purposes of this discussion,
16	asked Mr. Rose to provide those price projections?	16	let's talk about the EDU team in terms of all the
17	A. Yes, Because because we the	17	individuals listed in Discovery Response 19.a.
18	companies were aware that a significant portion of	18	A. Yes, okay.
19	the analysis is going to require 15-year projections	19	Q. So including Mr. Thorn and Ms. Morrow?
20	of prices.	20	A. Okay.
21	Q. Okay. Do you know whether or not FES	21	Q. Is that
22	has its own price projections?	22	A. That's fine, uh-huh.
23	A. I did not know at the time.	23	Q. Okay. So apart from the members of the
24	Q. Okay.	24	EDU team and apart from Mr. Rose, was there anyone
	Page 58		Page 60
1	A. But I I've since as you have seen,	1	else who helped evaluate the proposed transaction?
2	that they do have projects, but I I did not know	2	A. No.
3	at the time.	3	O. No, okay.
4	Q. Okay. When did you learn that they had	4	A. Mr. Rose didn't evaluate the
5	their own price projections?	5	transaction, though. I just want to make clear, the
6	A. Probably pretty recently, I mean, weeks	6	way you phrased that, I'm not sure if that's what yo
7	or months at most.	7	were saying.
8	Q. So would it be fair to say that that was	8	O. Oh. That was not my intent, but I'm
9	long after the proposed the term sheet had been	9	glad you clarified.
10	finalized?	10	A. Okay.
	A. Yes.	11	Q. Thank you. He just provided the market
			price information?
11		12	Diffee initorniation:
11	Q. Okay. And does the Regulated Generation	12	A. Correct.
11 12 13	Q. Okay. And does the Regulated Generation Department have its own set of future price		A. Correct.
11 12 13 14	Q. Okay. And does the Regulated Generation Department have its own set of future price projections?	13 14	A. Correct. Q. Okay. What is Mr. Haney's role at
11 12 13 14 15	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no.	13 14 15	A. Correct. Q. Okay, What is Mr. Haney's role at FirstEnergy?
11 12 13 14 15 16	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no. Q. Okay. Does the department have any at	13 14	A. Correct. Q. Okay. What is Mr. Haney's role at FirstEnergy? A. As I mentioned, he's vice-president of
11 12 13 14 15 16 17	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no. Q. Okay. Does the department have any at all?	13 14 15 16 17	A. Correct. Q. Okay. What is Mr. Haney's role at FirstEnergy? A. As I mentioned, he's vice-president of Compliance and Regulated Services.
11 12 13 14 15 16 17	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no. Q. Okay. Does the department have any at all? A. We don't look out more than a few years.	13 14 15 16 17 18	A. Correct. Q. Okay. What is Mr. Haney's role at FirstEnergy? A. As I mentioned, he's vice-president of Compliance and Regulated Services. Q. Okay. And he was not involved in
11 12 13 14 15 16 17 18	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no. Q. Okay. Does the department have any at all? A. We don't look out more than a few years. We don't go anywhere near what they do.	13 14 15 16 17 18 19	A. Correct. Q. Okay. What is Mr. Haney's role at FirstEnergy? A. As I mentioned, he's vice-president of Compliance and Regulated Services. Q. Okay. And he was not involved in evaluating the proposed transaction?
11 12 13 14 15 16 17 18 19 20	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no. Q. Okay. Does the department have any at all? A. We don't look out more than a few years. We don't go anywhere near what they do. Q. Okay. The the Business Development	13 14 15 16 17 18 19 20	A. Correct. Q. Okay. What is Mr. Haney's role at FirstEnergy? A. As I mentioned, he's vice-president of Compliance and Regulated Services. Q. Okay. And he was not involved in evaluating the proposed transaction? A. Correct.
11 12 13 14 15 16 17 18 19 20 21	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no. Q. Okay. Does the department have any at all? A. We don't look out more than a few years. We don't go anywhere near what they do. Q. Okay. The the Business Development Department, is that that's within FirstEnergy	13 14 15 16 17 18 19	A. Correct. Q. Okay. What is Mr. Haney's role at FirstEnergy? A. As I mentioned, he's vice-president of Compliance and Regulated Services. Q. Okay. And he was not involved in evaluating the proposed transaction? A. Correct. Q. Okay. Are you familiar with Cecilia
11 12 13 14 15 16 17 18 19 20	Q. Okay. And does the Regulated Generation Department have its own set of future price projections? A. Not to that extent, no. Q. Okay. Does the department have any at all? A. We don't look out more than a few years. We don't go anywhere near what they do. Q. Okay. The the Business Development	13 14 15 16 17 18 19 20 21	A. Correct. Q. Okay. What is Mr. Haney's role at FirstEnergy? A. As I mentioned, he's vice-president of Compliance and Regulated Services. Q. Okay. And he was not involved in evaluating the proposed transaction? A. Correct.

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	Page 33		Page 35
1	THE WITNESS: May I ask you to read the	1	Q. Great. Thank you.
2	question back, ma'am, please?	2	A. You're welcome.
3	(Record read.)	3	Q. We can set this aside for the moment.
4	A. Could you be more specific what you mean	4	Ms. Mikkelsen, this proceeding you have submitted tw
5	with respect to "purpose for the retail rate	5	sets of testimony; is that correct?
6	stability rider, please?	6	A. Yes.
77	Q. Sure. Let me rephrase. Does the retail	1	Q. Okay. If I refer to the direct testimony
9	rate stability rider distribute costs and revenues to	8	that was filed on August 4, 2014, as your initial
9	the companies' customers that are associated with -	9	testimony or your original testimony, will you
10	or that would be associated with the proposed	10	understand what I mean?
11	purchase power agreement between FES and the	11	A. I would prefer you refer to it as my
12	companies?	12	direct testimony -
13	MR. KUTIK: May I have the question read.	13	Q. Your direct testimony.
14	(Record read.)	14	A as it is labeled.
15	A. And the retail rate stability rider is	15	Q. Okay. That's fine. And if I refer to
16	designed to provide rate stability and certainty to	16	the testimony that was filed on December 22, 2014, as
17	the customers of the electric utility.	17	your supplemental testimony, will you understand wha
18	O. Would that would that rider strike	18	I mean?
19	that.	29	A. Yes.
20	If the companies and FES do not enter	20	Q. Okay. Great. Could we please turn to
21	into a purchase power agreement, would there be any	21	page 14 of your direct testimony. So looking at line
22	purpose to rider RRS?	22	21 you say "Rider RRS will be subject to two separate
23	A. I apologize. I am struggling with the	23	reviews"; is that correct?
24	use of the word "purpose for the rider RRS" so if you	24	A. Yes.
	Page 34	7	Page 36
		- 1	O Ohan And then looking at the part
1	could better clarify that to me, that would be	2	Q. Okay. And then looking at the next sentence in your testimony you state that "In the
2	helpful.	3	first review, the Staff will have from April 1 to
3	Q. Sure. Would would the would the	4	May 31 to review the annual Rider RRS filing for
5	expected, you know, retail rate stability benefits	5	mathematical errors, consistency with the Commission
5	associated with rider RRS exist in the absence of a	6	approved rate design, and incorporation of prior
7	purchase power agreement between the companies and	7	audit findings, if applicable"; is that correct?
	FES?	В	A. Yes.
8	A. No.	9	Q. Okay. So I would like to talk about this
	Q. Okay. So would you agree with me that		그 그 없는 그 사람들은 아이들은 이 아니아 아이는 아이를 하는데 아이들은 사람들이 있다면 하는데 아이들은 그 사람들이 다른데 아이들은 그 때문에 다른데 아이들은 그리고 있다면 하는데 아이들은 그리고 있다면 아이들은 그리고 있다면 하는데 아이들은 그리고 있다면 하는데 아이들은 그리고 있다면 아이들은 그리고 있
10	the retail rate stability rider was developed based	10	first review process in a little bit more detail. Is
11	in part on the proposed transaction?	11	this first review process something that's been
12	A. Again, the retail rate stability rider	12	proposed as part of the companies' electric security
13	was designed to provide customers rate stability and	13	plan?
14	certainty over the economic stability program period.	14	A. Yes.
15	Costs arising from the proposed transaction would be	15	Q. Okay. And is this first review process
16	one element of the design of the retail rate	16	included in the ESP application?
17	stability rider.	17	A. It's included in my testimony, my direct
18	Q. Okay. Thank you. Do you know if anyone	18	testimony that was filed in support of the
19	from the companies has approved this term sheet	19	application, yes.
20	that's been marked as Exhibit 1?	200	Q. Okay. Apart from your direct testimony,
21	A. No.	21	is there anywhere else in the application package
22	Q. No, you don't know one way or the other?	23	where this first review process is described?
23	A. No, I don't know. Your question was do I	24	A. I don't have the application package with me to review at this time.
24	know, and I answered, no, I don't know.	64	me to review at this time.

9 (Pages 33 to 36)

	Page 37		Page 39
1	Q. Okay. I'm sorry. Were you going to?	1	this proposed first review process, how did you come
2	Do you know if this first review process	2	up with that proposal?
3	is described in the application itself?	3	A. In developing the review process we felt
4	A. I don't think it is.	4	it was important that the staff have an opportunity
5	Q. Okay Do you know if this first review	5	to review the filing both initially and then in the
6	process is outlined in any Commission rule?	6	subsequent review process, and we wanted to be clear
7	A. I think it is practice standard	7	and transparent that we thought that was an important
9	practice for staff to review riders when they are	8	element of the economic stability program.
9	filed by the company.	9	Q. Okay. Were you relying upon that
10	Q. And when you say "company," which company	10	standard practice you referred to earlier in
11	are you referring to?	11	developing this proposal?
12	A. Based on your establishment of the ground	12	A. My regulatory experiences with respect to
13	rules earlier on, I thought we had agreed that when	13	review of riders would have contributed to the
14	we used the word companies, we were referring to Ohio	14	development, yes.
15	Edison Company, The Cleveland Electric Illuminating	15	Q. Okay. How frequently would this first
16	Company, and The Toledo Edison Company.	16	review process occur?
27	Q. Okay. Yeah, I thought I had heard you	17	A. Annually.
18	say company singular and that's why I was confused	18	Q. Okay. And is that stated in your
19	so.	19	testimony, your direct testimony, somewhere?
20	MR. KUTIK: Did you mean to say	20	A. In my testimony it states that the staff
21	companies?	21	will have from April 1 to May 31 to review the annua
22	THE WITNESS: I did.	22	rider RRS filing
23	Q. Okay. Great. Thank you. Apart from	23	Q. Okay.
24	well, scratch that.	24	A in the first review.
	Page 38		Page 40
1	Do you know what the basis for that	1	Q. Okay. Cool. Thank you. I would like to
2	standard practice is?	2	understand a little bit better what the specific
3	A. Could you be more specific, sir?	3	steps of this first review process would be. What
4	Q. Do you know why there is a standard	4	what is the first step? What happens first?
5	practice that the Commission staff reviews riders?	5	A. I don't know what the staff's steps would
6	A. I think that's probably a question better	6	be with respect to their review.
7	addressed to the staff.	7	O. Would the companies file something with
8	Q. Okay. Are you aware of any legal	8	the staff at some point?
9	requirement that calls for the staff to review	9	A. The companies would propose to file the
10	riders?	10	rider the retail rate stability rider on April 1
11	MR. KUTIK: Objection to the extent it	11	of each year for a rate that would be effective
12	calls for a legal conclusion, but you can answer.	12	June 1.
13	A. I am not a lawyer. I am not aware of any	13	O. Okay. And then the staff would have a
14	legal requirement.	14	two-month review period, if I am doing my math right
15	Q. Okay. Apart from the standard practice	15	A. For the first review, yes.
16	of staff and the description on pages 14 and 15 of	16	Q. Okay. When you say the first review, you
17	your direct testimony, are you aware of any other	17	mean you are distinguishing this from the second
18	sources for this first review process?	18	review process discussed on page 15 of your
19	MR. KUTIK: Objection.	19	testimony?
20	A. Could you clarify the question, please?	20	A. Yes.
21	Q. Sure. Can you tell me what part is	21	Q. Okay.
	confusing to you?	22	MR. KUTIK: Tell me when you are done
22			
22	A. The use of the word "sources."	2.3	finishing your discussion of the first review because

10 (Pages 37 to 40)

	Page 41		Page 43
1	MR. SOULES: Okay. That sounds good.	1	to reject those costs?
2	Q. In this first review process would the	2	MR. KUTIK: Objection, assumes facts.
3	staff be entitled to submit data requests to the	3	mischaracterizes her testimony.
4	companies?	4	A. I think if the staff found a mathematical
5	A. Yes.	5	error of any nature in the filing, they would
6	Q. Okay. And apart from the staff, who is	6	approach the company, and if the company agreed tha
7	allowed to participate in this first review process?	7	it was an error, we would amend and correct the
8	A. As proposed, the staff would be	8	filing.
9	responsible for the first review.	9	Q. If the company did not agree there was an
10	Q. Okay. So customers of the companies	10	error, who would have the final say?
11	would not be able to participate in that review	11	A. It is difficult for me to understand a
12	process?	12	hypothetical circumstance where the staff and the
13	A. As proposed, correct.	13	company couldn't agree on whether or not a
14	Q. Okay If in this first review process	14	mathematical error existed. A mathematical error is
15	the staff found a problem with the rider filing that	15	a mathematical error, so I guess I can't really
16	resulted in an overcharge of the companies'	16	accept the hypothetical circumstance, sir.
17	customers, would the Commission be entitled to reject	17	Q. Okay. If the staff and the companies had
16	the excess costs?	18	a disagreement about consistency with the
19	MR. KUTIK: Objection, assumes facts.	19	Commission-approved rate design, who would have the
20	A. May I ask you to restate that question,	20	final say under the first review process?
21	sir?	21	A. The Public Utilities Commission of Ohio
22	Q. Sure. Let's assume hypothetically rider	22	always has the final say with respect to the rates
23	RRS gets approved and a few years from now the	23	and tariffs of the company
24	Commission staff is performing its review under this	24	Q. Okay. And would a would the staff
	Page 42		Page 44
1	first review process. And let's assume further that	1	itself have that power, or would it have to be
2	the staff found a problem with the rider filing that	2	elevated to the Commission itself to make that
3	resulted in an excess charge to the companies'	3	decision?
4	customers. In that situation would the Commission be	4	A. The Commission approves the rates that
5	entitled to reject those excess costs?	5	are implemented by the companies.
6	MR. KUTIK: Objection, assumes facts.	6	MR. SOULES: Okay, Thank you. This is
7	Mischaracterizes the process and her testimony.	7	probably a good time for a break.
8	A. I'm having trouble with the hypothetical	8	MR, KUTIK: Okay.
9	with respect to the characterization that it's	9	(Recess taken.)
10	overcharging customers.	10	Q. Welcome back, Ms. Mikkelsen. So before
11	Q. Okay. Well, let's step back. In your	11	the break we were talking a little bit about the
12	testimony you state that "In the first review, the	12	first review process described on pages 14 and 15 of
13	Staff will have from April 1 to May 31 to review the	13	your direct testimony. I would now like to shift our
14	annual Rider RRS filing for mathematical errors" and	14	attention to the second review process discussed in
15	then for some other aspects as well. Would you agree	15 16	your testimony. And starting on page 15, line 3 of your
16	with me?	17	direct testimony, you state that "In the second
17	A. As proposed, the first review would allow		review, the Staff will have the opportunity to audit
18	for review for mathematical errors, consistency with	18	the reasonableness of the actual costs (excluding
19	the Commission approved rate design, and	19	Legacy Cost Components which shall not be included
20	incorporation of prior audit findings, if any. O. Okav. And if the staff found a	21	this second review or challenged in any subsequent
21	Q. Okay. And it the staff found a mathematical error in its review that had it not been	22	audit or review) contained in Rider RRS and the
22		23	actual market revenues contained in Rider RRS. The
	corrected would have resulted in customers being		audit shall include a review to confirm the actual
23	charged more money, would the Commission be entitled	24	andit shall include a review to confirm the actual

Page 45	Page 47
costs and actual market revenues included in Rider 1 A. No	t that I can think of at this time.
	you review any Commission regulations
states that? 3 when you w	vere developing this proposal?
A. Yes. 4 A. No	
	you review any Commission orders whe
	eveloping this proposal?
companies' electric security plan? 7 A. No	
	similar to the first review process, I
O. Is the second review process included in 9 would like to	o walk through the specific steps of the
	ew process. Looking at page 15 of your
	nony, lines 13 to 14, it states "Staff
my direct testimony which was filed with the 12 will docume	ent the results of their audit in a Staff
application, 13 Report to th	e Commission." Do you see where it
Q. Okay. Apart from the description of the 14 states that?	
second review process described in your direct 15 A. Ye	S.
testimony, are you aware of any other descriptions of 16 Q. An	d how much time would the staff have to
	audit being referenced here?
A. Can you be more specific? 18 A. Th	ere was no time parameters proposed.
Q. Sure. Do you know whether or not the 19 Q. Ok	ay. Oh, in stepping back I'm curious
	e initial step that triggers the staff
	be. Can you tell me what would trigger
MR. KUTIK: Objection, asked and 22 the audit pro	
	ink the staff would have to determine
	gger is for the audit process.
Page 46	Page 48
my direct testimony which was filed with the 1 Q. So	is it your understanding that they
	authority to begin an audit whenever they
	authority to begin an addit whenever are
Q. Only. Have you distince a day out of	nink the staff does have the authority
descriptions of the second review provides	utilities whenever they choose to do so.
** ***********************************	ay. So under the proposed second
At carryed by many promise promise promise and promise	ess, there is not necessarily a regular
	at which these reviews would occur, is
400 some page application and thumbed through it, 9 that correct	
400 Source balle appriention and manage in a sale in	e second review is designed to audit
	osts and revenues so there would need to
	osts unid it i tillate de tillia i i alla i i i
review process? 11 the actual of	ets and revenues in order to conduct the
review process? A. You would be able to find a description 11 the actual of the actu	sts and revenues in order to conduct the
review process? A. You would be able to find a description of the second review process in the direct in my 11 the actual of be actual or second review.	cw.
review process? A. You would be able to find a description of the second review process in the direct — in my direct testimony which was filed with the 11 the actual or be actual or second review process in the direct — in my direct testimony which was filed with the 12 be actual or second review process.	ew. ay. But apart from that, the need for
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. 11 the actual of be actual of the actual of the second review process in the direct in my direct testimony which was filed with the actual of the actual	ew. ay. But apart from that, the need for actual costs and revenues, there's not a
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. Q. Okay. Did you personally develop the the actual of be actual or be actual or second review process in the direct in my direct testimony which was filed with the actual or be actual or be actual or second review process.	ew. ay. But apart from that, the need for actual costs and revenues, there's not a equency at which these audits would occu
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. Q. Okay. Did you personally develop the second review process? Strike that.	ew. ay. But apart from that, the need for actual costs and revenues, there's not a equency at which these audits would occurroposal?
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. Q. Okay. Did you personally develop the second review process? Strike that. Did you personally develop this proposed 11 the actual of be actual of second review second review process in the direct in my direct testimony which was filed with the actual of be actual of second review second review process in the direct in my direct testimony which was filed with the actual of be actual of second review process. Q. Okay. Did you personally develop the second review process? Strike that. Did you personally develop this proposed A. The	ew. ay. But apart from that, the need for actual costs and revenues, there's not a equency at which these audits would occurrenced. coposal? at's correct.
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. Q. Okay. Did you personally develop the second review process? Strike that. Did you personally develop this proposed second review process? 11 the actual of be actual of the actual o	ew. ay. But apart from that, the need for actual costs and revenues, there's not a equency at which these audits would occuroposal? at's correct. ay. During the audit process that
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. Q. Okay. Did you personally develop the second review process? Strike that. Did you personally develop this proposed second review process? A. Yes. Did the actual of be actual of the actual of the process actual of the second review process. The process actual of the actual of t	ew. ay. But apart from that, the need for actual costs and revenues, there's not a equency at which these audits would occuroposal? at's correct. ay. During the audit process that art of the second review, would the staff
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. Q. Okay. Did you personally develop the second review process? Strike that. Did you personally develop this proposed second review process? A. Yes. Q. Okay. What what did you rely upon in the actual of be actual of be actual of the ac	ew. ay. But apart from that, the need for actual costs and revenues, there's not a equency at which these audits would occuroposal? at's correct. ay. During the audit process that art of the second review, would the staff ubmit data requests to the companies?
review process? A. You would be able to find a description of the second review process in the direct in my direct testimony which was filed with the application. Q. Okay. Did you personally develop the second review process? Strike that. Did you personally develop this proposed second review process? A. Yes. Q. Okay. What what did you rely upon in developing that proposal? the actual of be actual of the actual of the possible actual of the process and the process actual of the actual of t	ew. ay. But apart from that, the need for actual costs and revenues, there's not a equency at which these audits would occuroposal? at's correct. ay. During the audit process that art of the second review, would the staff ubmit data requests to the companies?

12 (Pages 45 to 48)

	Page 49		Page 51
1	requests?	1	in the proceeding, does that mean that parties other
2	A. No.	2	than the staff would be entitled to participate in
3	Q. Okay. Looking again at page 15 of your	3	this proceeding?
4	direct testimony, starting on line 14, it states "The	4	A. Yes.
5	Companies will be given the opportunity to review the	5	Q. Okay. Would those other party - well,
6	draft Staff Report for factual accuracy and to	6	would those other parties be entitled to submit data
7	identify confidential items, if any, prior to its	7	requests to the companies under this proposal?
8	filing." Do you see where it states that?	8	MR. KUTIK: Objection.
9	A. Yes.	9	THE WITNESS: May I have the question
10	O. Okay. Once the companies have completed	10	reread, please, ma'am?
11	their review of the draft staff report, would the	11	(Record read.)
12	report then be filed with the Commission?	12	A. Parties would be able to participate in
13	A. As contemplated, yes.	13	the proceeding under the procedural rules established
14	Q. Okay. And except for the confidential	14	for the proceeding.
15	portions of that report, the rest of it would be	15	O. And what procedural rules are you
16	publicly available under this proposal?	16	referring to?
17	A. Yes.	17	A. Procedural schedules that may be
18	Q. Okay. So in the next sentence starting	18	established for the proceeding.
19	on line 16, it states "After the filing of the Staff	19	Q. Would you contemplate that this type of
20	Report, the Companies would then have an opportunity	20	proceeding would be similar to the proceeding that w
21	to file a response to the Staff Report and any	21	are engaged in now where parties would be entitled to
22	findings from the Staff audit." Do you see where it	22	submit discovery requests and submit testimony?
23	states that?	23	A. I don't agree it will be like this
24	A. Yes.	24	proceeding.
24	Page 50	-	Page 52
0		20.	
1	Q. Okay. Under this proposed second review	1	Q. Okay. Would - in the proceeding that
2	process, do you know how much time the companies	2	would occur under the second review process, would
3	would have to file a response?	3	parties other than the staff be limited to simply
4	A. I don't recall.		filing comments regarding the staff audit report?
5	Q. Does that mean that there is a time	5	A. I don't know.
6	that's embedded within this proposal; you just don't	6	Q. Okay. Do you know if other parties would
7	recall what that time would be?	7	be entitled to submit sworn testimony in such a
8	A. There is not a time embedded within this	8.	proceeding?
9	proposal, no.	9	A. I think they would, subject to Commission
10	Q. Okay, okay. And then the next sentence	10	establishment of protocols for the hearing.
11	on line 18 states "If needed, the matter could be set	11	Q. Okay. So backing up to the beginning of
12	for hearing." Do you see where it states that?	12	the paragraph we have been focusing on, starting on
13	A. Yes.	13	line 9, it states "Any determination that the costs
14	Q. What type of hearing are you referring to	14	and revenues included in Rider RRS are not
15	in that sentence?	15	unreasonable shall be made in light of the facts and
16	A. An evidentiary hearing.	16	circumstances known at the time such costs were
17	Q. Okay. And what circumstances would	17	committed and market revenues were received." Do yo
18	trigger the need for a hearing under this proposal?	18	see where it states that?
19	A. Disagreement over matters associated with	19	A. Yes.
20	the rider.	50	Q. Okay. And what is the basis for your
21	Q. Disagreement by whom?	21	conclusion that these determinations shall be made in light of the facts and circumstances known at the
22	A. The companies the companies and		
		20	
23	parties in the proceeding. Q. Okay. And when you refer to the parties	23 24	time such costs were committed and market revenu- were received?

13 (Pages 49 to 52)

	Page 53	-	Page 55
1	MR. KUTIK: Objection, mischaracterizes	1	Q. Okay. Do you recall specifically which
2	her testimony.	2	cases?
3	THE WITNESS: May I have that reread,	3	A. A case that comes to mind is
4	please, ma'am?	4	85-52-EL-COI. There were others but I don't recall
5	(Record read.)	5	the docket numbers.
6	A. Ask you to restate the question, sir.	6	Q. Okay. Thank you.
7	Q. Sure. So looking back at your direct	7	MR. SOULES: Could we have this marked as
8	testimony, it states "Any determination that the	8	Exhibit 2.
9	costs and revenues included in Rider RRS are not	9	(EXHIBIT MARKED FOR IDENTIFICATION
10	unreasonable shall be made in light of the facts and	10	Q. Ms. Mikkelsen, you have been passed a
11	circumstances known at the time such costs were	11	document that's been marked as Mikkelsen Exhibit 2.
12	committed and market revenues were received." And	12	This document is in response to discovery request
13	what I would like to know is what the basis for that	13	P3-EPSA Set 1-INT-1. Are you familiar with this
14	conclusion is.	14	document?
15	MR, KUTIK: Objection, mischaracterizes	15	A. Yes.
16	her testimony as to conclusion.	16	Q. Okay, And did you provide the answer to
17	A. The proposed audit recommendation is that	17	this discovery request?
18	the determination should be fact based based on the	18	MR. KUTIK: To move this along we will
19	facts and circumstances that were known at the time	19	stipulate that any interrogatory or discovery answer
20	the decisions were made.	20	that bears her name she provided.
21	MR. SOULES: I'm sorry. Could I have	21	MR. SOULES: Okay. That's fine.
22	that question answer read back.	22	Could we have this marked Exhibit 3.
23	(Record read.)	23	(EXHIBIT MARKED FOR IDENTIFICATION
24	Q. Okay. How did you develop that aspect of	24	Q. Ms. Mikkelsen, you have been passed a
	Page 54		Page 56
1	this proposal?	1	document that's been marked as Exhibit 3. This
2	A Professional experience.	2	document is a response to discovery request P3-EPSA
3	Q. Did you review any documents when you	3	Set 1-INT-2. Are you familiar with this document?
4	were developing that aspect of this proposal?	4	A. Yes.
5	A. No.	5	O. Okay. I won't ask my next question
6	O. Did you review any legal authorities when	6	because we just had a stipulation.
7	developing this aspect of the proposal?	7	So looking down at the response to this
8	A. No.	8	discovery request, it cross-references some
9	Q. Okay. And what professional experience	9	objections that were made in INT 1, and then it
10	are you referring to?	10	states that "the assessment that the costs and
11	A. The professional experience of a rates	11	revenues included in Rider RRS are not unreasonable
12	and regulatory affairs professional.	12	should be made in accordance with the following
13	Q. Okay. Do you know if do you know if	13	guidelines." And then beneath that there are four
14	this task has been previously applied in a Commission	14	guidelines listed. Do you see where it states that?
15	proceeding?	15	A. Yes.
16	A. Again, I am not an attorney, but I am	16	Q. Okay. How did you identify these four
17	aware of proceedings that have used similar criteria.	17	guidelines?
18	Q. Okay. And which proceedings?	18	A. The second guideline was really referred
19	A. Prudence cases.	19	to in my direct testimony at page 15, lines 9 through
20	Q. Okay. Can you elaborate on that? Which	20	11. The other three guidelines would have been
20	prudence cases?	21	provided by counsel.
20 21 22	A. I can elaborate on prudence cases that	22	MR. SOULES: I'm sorry. So could we have
21	A. I can elaborate on prudence cases that I've been involved in which related to the inclusion	22	MR. SOULES: I'm sorry. So could we have that answer read back.

14 (Pages 53 to 56)

Page 57		Page 55
Q. Okay. Do you personally have an opinion	1	you've agreed that the Commission would be able to
as to whether there should exist a presumption that	2	exclude or disallow costs associated with the plants
the decisions made were prudent?	3	from recovery through rider RRS if the Commission
A. Yes, I have an opinion.	4	finds those costs to be unreasonable or imprudent; is
Q. And what is your opinion?	5	that correct?
A. That there should exist a presumption	6	A. Yes.
that the decisions made were prudent.	7	Q. Okay. And why?
Q. And what is the basis for that opinion?	8	A. May I ask you to restate the question,
A. Professional experience.	9	please?
Q. Apart from your professional experience,	10	Q. Sure, absolutely. I'm just trying to
are you relying on anything in support of that	11	understand why you agreed that the Commission woul
	12	be able to exclude or disallow those costs.
	13	A. The companies are only allowed to charge
	14	Commission-approved rates.
	15	Q. Okay. Just to make sure I'm
	16	understanding your are you did you read part
	17	(h) and the response to that as referring to the
	18	second review process as described on page 15 of your
	19	direct testimony?
	20	A. Yes.
	21	Q. Okay. So, Ms. Mikkelsen, let's assume
	22	that rider RRS gets approved. I'm sorry. Strike
	23	that.
	24	Let's take another look at page 15 of
Page 58		Page 60
A I don't recell	7	your direct testimony. Looking at lines 21 to 22, it
		states "Any expenses incurred by the Companies
		associated with the audit process will be recovered
	7.	in Rider RRS " Do you see where it states that?
		A. Yes.
		Q. Okay. And just to be clear, the audit
A Secretary of the Control of the Co		process being referred to here is the same one
		discussed earlier on page 15 of your testimony?
		A. It is the second review.
	100	Q. Okay. An audit process is a subcomponent
	-	of the overall second review process.
	17.5	MR. KUTIK: Objection.
		A. Can I ask you to restate the question,
1-INT-38. Are you familiar with this document?	14	please?
A. Yes.	15	Q. It is - is the audit process a part of a
		larger second review process under this proposal?
(1771) a. 1770	16	
Q. Okay. And with respect to part (h) of	16	
Q. Okay. And with respect to part (h) of the interrogatory, are you responsible for the answer	17	A. The audit process is the second review.
Q. Okay. And with respect to part (h) of the interrogatory, are you responsible for the answer to that question?	17 18	A. The audit process is the second review. Q. Okay. But that audit process could
Q. Okay And with respect to part (h) of the interrogatory, are you responsible for the answer to that question? A. Yes.	17 18 19	A. The audit process is the second review. Q. Okay. But that audit process could include up to and including an evidentiary hearing;
Q. Okay And with respect to part (h) of the interrogatory, are you responsible for the answer to that question? A. Yes. Q. Okay And what's the basis for your	17 18 19 20	A. The audit process is the second review. Q. Okay. But that audit process could include up to and including an evidentiary hearing; is that correct?
Q. Okay. And with respect to part (h) of the interrogatory, are you responsible for the answer to that question? A. Yes. Q. Okay. And what's the basis for your response to that question?	17 18 19 20 21	A. The audit process is the second review. Q. Okay. But that audit process could include up to and including an evidentiary hearing; is that correct? A. Yes.
Q. Okay And with respect to part (h) of the interrogatory, are you responsible for the answer to that question? A. Yes. Q. Okay And what's the basis for your	17 18 19 20	A. The audit process is the second review. Q. Okay. But that audit process could include up to and including an evidentiary hearing; is that correct?
	Q. Okay. Do you personally have an opinion as to whether there should exist a presumption that the decisions made were prudent? A. Yes, I have an opinion. Q. And what is your opinion? A. That there should exist a presumption that the decisions made were prudent. Q. And what is the basis for that opinion? A. Professional experience. Q. Apart from your professional experience, are you relying on anything in support of that personal opinion? A. No. Q. Okay. If I asked those same questions regarding the other two regarding guidelines 3 and 4, would you answer the same? A. Yes. Q. Okay. Did you review any Commission decisions scratch that. Did you review any Commission regulations in preparing your response to this discovery request? A. No. Q. Did you review any Commission orders in preparing your response to this discovery request? A. I don't recall. Q. Do you recall if you reviewed any documents in preparing your response to this discovery request? A. I did review documents. Q. Okay. Which documents? A. I don't recall. MR. SOULES: Okay. Could we have this marked Exhibit 4. (EXHIBIT MARKED FOR IDENTIFICATION.) Q. Ms. Mikkelsen, you have been passed a document is a response to discovery request Nucor Set	Q. Okay. Do you personally have an opinion as to whether there should exist a presumption that the decisions made were prudent? A. Yes, I have an opinion. Q. And what is your opinion? A. That there should exist a presumption that the decisions made were prudent. Q. And what is the basis for that opinion? A. Professional experience. Q. Apart from your professional experience, are you relying on anything in support of that personal opinion? A. No. Q. Okay. If I asked those same questions regarding the other two regarding guidelines 3 and 4, would you answer the same? A. Yes. Q. Okay. Did you review any Commission decisions scratch that. Did you review any Commission regulations in preparing your response to this discovery request? A. No. Q. Did you review any Commission orders in preparing your response to this discovery request? A. No. Q. Did you review any Commission orders in preparing your response to this discovery request? A. I don't recall. Q. Do you recall if you reviewed any documents in preparing your response to this discovery request? A. I did review documents. Q. Okay. Which documents? A. I don't recall. MR. SOULES: Okay. Could we have this marked Exhibit 4. (EXHIBIT MARKED FOR IDENTIFICATION.) Q. Ms. Mikkelsen, you have been passed a document that's been marked as Exhibit 4. This document is a response to discovery request Nucor Set

15 (Pages 57 to 60)

	Page 61		Page 63
1	let's assume further that the Commission determines	1	process; is that correct?
2	that certain costs are unreasonable and, therefore,	2	A. Yes.
3	rejects recovery of those costs. In that	3	Q. Okay. Thank you. Ms. Mikkelsen, are you
4	circumstance would the companies be able to recover	4	familiar with the team that represented the companies
5	the expenses they had incurred as a result of the	5	in evaluating and negotiating the proposed
6	audit process?	6	transaction with FES?
7	A. The companies would be able to recover	7	A. May I ask you to restate the question?
8	any audit-related expenses in rider RRS.	8	Q. Sure. Could you tell me what part of
9	Q. So the companies would be able to recover	9	that question you didn't understand?
10	audit-related expenses regardless of whether the	10	A. "Familiar."
11	Commission finds rider RRS costs to be reasonable?	11	O. Okay. Are you aware as to whether there
12	MR. KUTIK: Objection, asked and	12	was a team that represented the companies in
13	answered. Also confusing with respect to the word	13	evaluating and negotiating the proposed transaction
14	"cost." You are referring to the audit costs or some	14	with FES?
15	other costs?	15	A. Yes, I am aware there was a team.
16	MR. SOULES: Could we have the question	16	Q. Okay. If I refer to that team as the EDU
17	read back.	17	team, will you understand what I mean?
18	(Record read.)	18	A. Yes.
19	Q. Ms. Mikkelsen, if you don't understand	19	O. Okay Thank you. When did you first
20	the question, please let me know.	20	hear than an EDU team was being created?
21	A. I don't understand the question.	21	MR. KUTIK: May I have the question read,
22	Q. Okay. Just to put some numbers on it,	22	please.
23	these are obviously very simplified numbers. Let's	23	(Record read.)
24	suppose that under the second review process the	24	A. May, 2014.
-	Page 62		Page 64
		-	
1	companies incur \$100 of audit-related expenses. And	1	 Q. Okay. Do you remember who told you that
2	let's assume further that at the end of that process	2	an EDU team was being created?
3	the Commission determines that the rider RRS costs	3	A. Yes.
4	are excessive in the amount \$1,000, and the	4	Q. And who was that?
5	Commission disallows that \$1,000 of costs. In that	5	A. William Ridmann.
6	circumstance would the \$100 still be recoverable	6	Q. And how did you hear about it from
7	through rider RRS?	7	Mr. Ridmann? Was it an in person meeting? In a
8	MR. KUTIK: Objection.	8	phone call? In an e-mail?
9	A. Could you provide greater clarity around	9	A. In person.
-	expenses versus costs?	10	Q. Okay, And what did Mr. Ridmann tell you
			A. I don't recall the specifics of the
10	Q. Sure. I was using expenses because	11	
10	Q. Sure. I was using expenses because that's the word used on line 21 of your testimony. I	12	conversation.
10 11 12			Q. At the time of that conversation, were
10 11 12 13	that's the word used on line 21 of your testimony. I	12	conversation.
10 11 12 13	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a	12 13	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES?
10 11 12 13 14	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider	12 13 14	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question
10 11 12 13 14 15	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider RRS costs were unreasonable, would the companies	12 13 14 15 16 17	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question reread, please?
10 11 12 13 14 15 16	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider RRS costs were unreasonable, would the companies still be able to recover any costs that it — that	12 13 14 15 16 17 18	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question reread, please? (Record read.)
10 11 12 13 14 15 16 17	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider RRS costs were unreasonable, would the companies still be able to recover any costs that it — that they incurred during the auditing process?	12 13 14 15 16 17	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question reread, please? (Record read.) A. Yes.
10 11 12 13 14 15 16 17 18	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider RRS costs were unreasonable, would the companies still be able to recover any costs that it — that they incurred during the auditing process? MR. KUTIK: Objection.	12 13 14 15 16 17 18 19 20	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question reread, please? (Record read.) A. Yes. Q. Okay. Following the meeting with
10 11 12 13 14 15 16 17 18 19 20	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider RRS costs were unreasonable, would the companies still be able to recover any costs that it — that they incurred during the auditing process? MR. KUTIK: Objection. A. The companies' proposal is that costs	12 13 14 15 16 17 18 19 20 21	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question reread, please? (Record read.) A. Yes. Q. Okay. Following the meeting with Mr. Ridmann, did you take any steps, you know,
10 11 12 13 14 15 16 17 18 19 20 21	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider RRS costs were unreasonable, would the companies still be able to recover any costs that it — that they incurred during the auditing process? MR. KUTIK: Objection. A. The companies' proposal is that costs incurred related to the audit would be recovered in	12 13 14 15 16 17 18 19 20 21 22	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question reread, please? (Record read.) A. Yes. Q. Okay. Following the meeting with Mr. Ridmann, did you take any steps, you know, pursuant to that meeting?
	that's the word used on line 21 of your testimony. I guess what I am trying to understand is if in a situation where the Commission determined that rider RRS costs were unreasonable, would the companies still be able to recover any costs that it — that they incurred during the auditing process? MR. KUTIK: Objection. A. The companies' proposal is that costs incurred related to the audit would be recovered in rider RRS.	12 13 14 15 16 17 18 19 20 21	conversation. Q. At the time of that conversation, were you already aware of the possibility of a proposed transaction with FES? THE WITNESS: May I have that question reread, please? (Record read.) A. Yes. Q. Okay. Following the meeting with Mr. Ridmann, did you take any steps, you know,

16 (Pages 61 to 64)

	Page 398		Page 400
1	A. Yes.	1	THE WITNESS: May I ask you to restate
2	Q. Do you know what it is?	2	the question, please?
3	A. No.	3	BY MR. OLIKER:
4	Q. That's fine. We can move on then from	4	Q. You - are you familiar with what the
5	that.	5	manufactured gas plant site is?
6	In your testimony you describe a review	6	MR. KUTIK: I'm sorry, what was the
7	process for costs that are flowed through Rider RRS,	7	question?
8	correct?	8	(Record read back as requested.)
9	MR. KUTIK: You want to refer her to a	9	MR. KUTIK; I'll object.
10	page?	10	THE WITNESS: May I ask you to restat
11	MR. OLIKER: 1 can try to find it if	11	the question, please?
12	you'd like, but I was going to talk pretty high	12	BY MR. OLIKER:
13	level.	13	Q. Is one of the purposes of Rider GDR to
14	MR. KUTIK: Okay.	14	potentially collect site remediation costs at
15	THE WITNESS: Yes.	15	manufactured gas plant sites?
16	BY MR. OLIKER:	16	THE WITNESS: May I ask you to rerease
17	Q. And you're talking, just from a high	17	the question for me, please, ma'am?
18	level, there would be a first audit of costs which	18	(Record read back as requested.)
19	would be sort of performed parallel with this case,	19	THE WITNESS: Yes.
20	and then there would be a continuing ongoing audit of	20	BY MR, OLIKER:
21	costs that were flowed through RRS in the future,	21	Q. Okay. And this is on Page 24 of your
22	correct?	22	direct testimony. I didn't think this would be such
23	MR. KUTIK: I'll object to the extent	23	a difficult issue.
24	that this was discussed thoroughly by several	24	Have you quantified the cost of
	Page 399		Page 401
1	questioners in the first session; so it's been asked	1	remediating these manufactured gas plant sites?
2	and answered.	2	MR. KUTIK: Objection; asked and
3	MR. OLIKER: I'll be brief.	3	answered, thoroughly discussed in her previous
4	THE WITNESS: May I have the question	4	deposition session.
5	reread, please, ma'am?	5	THE WITNESS: No.
6	(Record read back as requested.)	6	BY MR. OLIKER:
7	MR. KUTIK: I'll further object;	7	Q. Okay. And this is a similar part of
8	mischaracterizes her testimony, but go ahead.	8	your testimony, you say this is this is regarding
9	THE WITNESS: May I ask you to restate	9	Rider GDR, "This is not an exhaustive list of
10	the question, please, sir?	10	directives that could arise"
14	BY MR. OLIKER:	11	THE COURT REPORTER: I'm sorry, coul
		12	you start over?
11	O. Let's just cut to the chase: Assuming	14	2 mm m m m m m m m m m m m m m m m m m
11 12	Q. Let's just cut to the chase: Assuming the Commission decides to audit Rider RRS for	13	BY MR. OLIKER:
11	the Commission decides to audit Rider RRS for		BY MR. OLIKER: O. You indicate that your testimony does
11 12 13 14	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS,	13	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that
11 12 13 14	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS,	13 14	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but
11 12 13 14 15	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS, would you agree that that will have no impact on the	13 14 15 16 17	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but instead provide examples of the types of costs that
11 12 13 14 15	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS, would you agree that that will have no impact on the amount of money that FirstEnergy Ohio utilities pay	13 14 15 16	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but instead provide examples of the types of costs that could be recovered.
11 12 13 14 15 16	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS, would you agree that that will have no impact on the amount of money that FirstEnergy Ohio utilities pay to FirstEnergy Solutions? A. Yes.	13 14 15 16 17 18 19	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but instead provide examples of the types of costs that could be recovered. My question is: Has FirstEnergy
11 12 13 14 15 16 17	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS, would you agree that that will have no impact on the amount of money that FirstEnergy Ohio utilities pay to FirstEnergy Solutions? A. Yes. O. Thank you. And jumping to Rider GDR,	13 14 15 16 17 18 19 20	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but instead provide examples of the types of costs that could be recovered. My question is: Has FirstEnergy identified any additional costs that may be collected.
11 12 13 14 15 16 17 18	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS, would you agree that that will have no impact on the amount of money that FirstEnergy Ohio utilities pay to FirstEnergy Solutions? A. Yes. Q. Thank you. And jumping to Rider GDR, which is I believe the Government Directives Rider,	13 14 15 16 17 18 19 20 21	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but instead provide examples of the types of costs that could be recovered. My question is: Has FirstEnergy identified any additional costs that may be collected through Rider GDR?
11 12 13 14 15 16 17 18 19	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS, would you agree that that will have no impact on the amount of money that FirstEnergy Ohio utilities pay to FirstEnergy Solutions? A. Yes. O. Thank you. And jumping to Rider GDR,	13 14 15 16 17 18 19 20 21 22	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but instead provide examples of the types of costs that could be recovered. My question is: Has FirstEnergy identified any additional costs that may be collected through Rider GDR? MR. KUTIK: Objection; asked and
11 12 13 14 15 16 17 18 19 20 21	the Commission decides to audit Rider RRS for prudence on an ongoing basis, if there is a disallowance of costs that are flowed through RRS, would you agree that that will have no impact on the amount of money that FirstEnergy Ohio utilities pay to FirstEnergy Solutions? A. Yes. Q. Thank you. And jumping to Rider GDR, which is I believe the Government Directives Rider,	13 14 15 16 17 18 19 20 21	BY MR. OLIKER: Q. You indicate that your testimony does not describe an exhaustive list of directives that could arise between now and the end of ESP IV, but instead provide examples of the types of costs that could be recovered. My question is: Has FirstEnergy identified any additional costs that may be collected through Rider GDR?

37 (Pages 398 to 401)

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Page 436
                                               Page 434
                                                                   they were prudently made in order to help them
           O. Okay. Are you -- from your last
 1
                                                                   effectively participate in the competitive market and
      statement that "prudently and conservatively incurred
 2
      costs to effectively participate in the competitive
                                                                   deliver shareholder value.
                                                              3
 3
                                                                        Q. And are the Legacy cost components
      market," are you stating that every decision made by
 4
                                                                   specifically defined that will be included, or could
                                                              5
      a competitive retail electric supplier must be
 5
                                                                   additional costs from the testimony you cited to be
      presumed to be prudent and conservative if they are
 6
      participating in the competitive market?
                                                                   included?
 7
                                                                          MR. KUTIK: Objection.
                                                              8
 B
           A. I think it's reasonable to assume the
                                                                           THE WITNESS: I'm sorry. May I have the
                                                              9
      decisions were prudent, yes.
 9
                                                                   question reread, please?
           Q. And that's by the mere fact that they're
                                                             10
10
                                                                   BY MS. BOJKO:
                                                             11
      participating in the competitive market?
11
                                                                        Q. Let me try again. I apologize. On Line
              MR. KUTIK: Objection; asked and
                                                             12
12
                                                                   15 you say, "...these Legacy Cost Components were
                                                             13
13
      answered.
                                                                   reviewed by the EDU Team," and I'm asking if that was
                                                             14
              THE WITNESS: Yes.
14
                                                                   a defined set of Legacy costs that are known by the
                                                             15
15
      BY MS. BOJKO:
                                                                   EDU team when this review occurred?
           Q. And would you make the same statement
                                                             16
16
                                                                        A. The Legacy cost components would have
      with a contract entered into by an alternative
                                                             17
17
                                                                   been -- assumptions associated with the Legacy cost
                                                             18
      credit - or, an alternative CRES provider such as
18
                                                                   components would have been reflected in the cost
                                                             19
19
                                                                   components contained in the attachment to Witness
              MR. KUTIK: Objection.
                                                             20
20
                                                                   Lisowski's testimony. And Witness Ruberto and his
              THE WITNESS: May I ask you to restate
                                                             21
21
                                                                   team then reviewed the costs for a determination of
                                                             22
      the question, please?
                                                                   whether or not they were reasonable or unreasonable,
                                                             23
23
      BY MS. BOJKO:
                                                                   including those Legacy cost components.
           Q. Sure. Would you make the same
                                                             24
24
                                                                                                             Page 437
                                                Page 435
                                                                        O. And under the companies' proposal, the
                                                              1
       assumption that decisions made by IGS are prudent by
                                                                   Legacy costs included in the rider calculation are
                                                               2
 2
       the mere fact that they participate in the
                                                                    not subject to the audit review that you describe on
                                                               3
      competitive market?
 3
                                                                   Page 15, Line 3; is that correct?
                                                               4
           A. Yeah. I would have a presumption of
 4
                                                               5
                                                                        A. Correct.
 5
                                                                        Q. And those Legacy costs cannot be
           Q. Okay. And how do you know that the
                                                               6
 6
                                                                   challenged at a later time; is that right?
                                                               7
       participation by FES was effective in the market?
 7
                                                                        A. May I ask you to restate the question,
                                                               B
 8
           A. I - I think that doesn't properly
                                                               9
                                                                   please, as it relates to a later time?
 9
      characterize the testimony here.
                                                                        Q. Sure. Legacy costs -- the Legacy cost
           Q. Okay. I thought you said that on
                                                             10
10
                                                                   components can never be challenged; is that right?
                                                             11
11
      Line 13, "a competitive company," you were talking
                                                                        A. No.
       about FirstEnergy Solutions. And you stated that
                                                             12
                                                                        Q. Okay. It says, "(excluding Legacy Cost
      FirstEnergy Solutions prudently and conservatively
                                                             13
13
                                                                   Components which shall not be included in this second
                                                             14
       incurred costs to effectively participate in the
14
                                                                   review or challenged in any subsequent audit or
                                                             15
15
      competitive market.
                                                                   review)." So can they be challenged in a subsequent
                                                             16
              I'm asking how you know that FirstEnergy
16
                                                             17
                                                                    audit or review?
       Solutions was effective in its participation in the
17
18
                                                             18
                                                                        A. No.
      competitive market?
                                                                        Q. So the opportunity to challenge them is
                                                             19
           A. And I guess that's what I'm saying,
19
                                                                   in this case; is that right?
       that's not - my testimony here doesn't address
                                                             20
20
                                                             21
                                                                        A. Yes.
21
      whether they were effective or weren't. What my
                                                                        Q. And you refer to the second review on
                                                             22
       testimony here addresses is that these decisions were
      made that gave rise to these Legacy cost components
                                                             23
                                                                   Line 3 on Page 15. When does that second review
23
      by a competitive company, with the presumption that
                                                             24
                                                                   occur?
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46 (Pages 434 to 437)

	Page 438		Page 440
1	MR. KUTIK: Objection. These questions	1	Q. Okay. And do you mean that does that
2	have been asked and answered in the prior session.	2	mean MTEP to you?
3	She can answer them, but you should be you should	3	A. I think it means MISO transmission
4	hopefully get to the point that's not been covered	4	expansion costs to me. I'm not sure if it's it
5	already.	5	equates to MTEP.
6	THE WITNESS: I'm sorry, may I have the	6	Q. Okay, I will not abbreviate it then.
7	question reread, please, ma'am?	7	A. Thank you.
8	(Record read back as requested.)	8	Q. So going back to Page 17 on Line 21 -
9	THE WITNESS: The second review would	9	actually it's on Line 22 and 23, is it your
10	occur after there are actual costs and revenues	10	understanding that today customers are not required
11	included in Rider RRS. The timing would be at the	11	to pay up to \$360 million for RTEP costs?
12	discretion of the Commission.	12	A. Customers - I would - the companies
13	ву мѕ. волко:	13	have committed to absorb \$360 million of Legacy RTE
14	Q. Okay. And then any disallowance that is	14	costs.
15	found to be due to unreasonable costs through this	15	Q. Okay. And under the original agreement,
16	second review, that would be recognized in a	16	customers would not pay for the MISO expansion plan
17	subsequent Rider RRS filing, is that how I understand	17	costs if they couldn't be included in the ATSI
18	it?	18	formula; is that right?
19	MR. KUTIK: Objection; asked and	19	THE WITNESS: May I have that question
20	answered. Go ahead,	20	reread, please?
21	THE WITNESS: Disputed costs and	21	(Record read back as requested.)
22	revenues would continue to be recovered in Rider RRS	22	THE WITNESS: No.
23	during the dispute period. Resolution of any audit	23	ву мѕ. волко:
24	findings would be included in the next Rider RRS	24	Q. Okay. When would when would
	Page 439		Page 441
1	filing after a final nonappealable order related to	1	customers pay for the MISO transmission expansion
2	that matter.	2	costs?
3	BY MS. BOJKO:	3	A. When they are included in rates charged
4	Q. Okay. So you're saying the	4	to the company and in turn passed along to its
5	reconciliation or disallowance would occur in that	5	customers.
6	subsequent filing?	6	Q. Okay. So through your testimony on
7	A. Any adjustments arising out of a Rider	7	Page 18 and 19, it's my understanding that customers
8	RRS audit would occur - or would be included in a	8	currently could forego up to \$360 million for the
9	subsequent Rider RRS filing.	9	Legacy RTEP costs, plus customers would not have t
10	Q. Okay, Let's turn to Page 17 and talk	10	pay for the MISO expansion costs if they weren't
11	about RTEP and MTEP. I've used the term before, but	11	included in the ATSI formula that was passed onto
	do you understand that RTEP means the regional	12	customers?
		13	MR. KUTIK: Can I have the question
12	transmission expansion plan costs; is that right?	20	
12 13	transmission expansion plan costs; is that right? A. Yes.	14	read, please?
12 13 14	A. Yes. O. And do you understand that when I use		(Record read back as requested.)
12 13 14 15	A. Yes. O. And do you understand that when I use	14	
12 13 14 15	A. Yes. Q. And do you understand that when I use the word MTEP, that that's the MISO transmission	14 15	(Record read back as requested.) THE WITNESS: May I ask you to restate the question, please?
12 13 14 15 16	A. Yes. Q. And do you understand that when I use the word MTEP, that that's the MISO transmission expansion costs? A. Yes.	14 15 16	(Record read back as requested.) THE WITNESS: May I ask you to restate the question, please? BY MS. BOJKO:
12 13 14 15 16 17	A. Yes. Q. And do you understand that when I use the word MTEP, that that's the MISO transmission expansion costs? A. Yes. Q. Okay. And you don't use the acronym	14 15 16 17	(Record read back as requested.) THE WITNESS: May I ask you to restate the question, please? BY MS. BOJKO: Q. Which part do you not understand?
12 13 14 15 16 17 18	A. Yes. Q. And do you understand that when I use the word MTEP, that that's the MISO transmission expansion costs? A. Yes.	14 15 16 17 18	(Record read back as requested.) THE WITNESS: May I ask you to restate the question, please? BY MS. BOJKO: Q. Which part do you not understand? A. The forego — the customers foregoing
12 13 14 15 16 17 18 19 20	A. Yes. Q. And do you understand that when I use the word MTEP, that that's the MISO transmission expansion costs? A. Yes. Q. Okay. And you don't use the acronym	14 15 16 17 18 19 20 21	(Record read back as requested.) THE WITNESS: May I ask you to restate the question, please? BY MS. BOJKO: Q. Which part do you not understand? A. The forego the customers foregoing 360 million.
12 13 14 15 16 17 18 19 20 21	A. Yes. Q. And do you understand that when I use the word MTEP, that that's the MISO transmission expansion costs? A. Yes. Q. Okay. And you don't use the acronym MTEP in your testimony, but I believe that that's what you're referring to on Page 18, Line 17; is that correct?	14 15 16 17 18 19 20 21 22	(Record read back as requested.) THE WITNESS: May I ask you to restate the question, please? BY MS. BOJKO: Q. Which part do you not understand? A. The forego the customers foregoing 360 million. Q. Okay. My understanding that the
12 13 14 15 16 17 18 19 20 21 22 23	A. Yes. Q. And do you understand that when I use the word MTEP, that that's the MISO transmission expansion costs? A. Yes. Q. Okay. And you don't use the acronym MTEP in your testimony, but I believe that that's what you're referring to on Page 18, Line 17; is that	14 15 16 17 18 19 20 21	(Record read back as requested.) THE WITNESS: May I ask you to restate the question, please? BY MS. BOJKO: Q. Which part do you not understand? A. The forego the customers foregoing 360 million.

	Page 101		Page 103
		and the H	y about, you know, the nature of the
1 A. No.	1	genericali	is now, or we can wait until later.
 Q. Okay. And did 	2	discussion	Why don't we talk about the nature and if
3 A. I'll clarify that. On	nly documentation 3	Q. Y	ore we can get into, we can do it this
4 in response to some of the	requests but only in that		
5 fashion.	5	afternoon	Okay. The nature was more in terms of
6 Q. Okay. But - outs	ide of any requests you 6	Α. (okay. The hattire was more in beat as heen
7 might have received from	parties in this proceeding,	what the	proposed rules were, what what has been
8 you didn't make any docum	nentation of any of your	occurring	associated with those rules, and what -
9 meetings with Mr. Jurusik	about environmental 9	his judgm	ent on the outcome of some of those rules.
10 compliance.	10	Q. (okay. And you said you had these
11 A. No.	11	discussion	ns both before and after the rules were
Q. Okay. And did M	r Jurusik share any 12	finalized;	is that right?
2 de aumante with you shout	environmental compliance at 13	A. I	For the coal combustion residual
	14	specifical	lly, yes.
 14 Sammis? 15 A. I don't remember 	15	Q. (Okay. And has Mr. Jurusik's take on the
15 A. I don't remember	where	rules char	nged now that they are finalized?
Q. Okay. But he ma A. He may have sho	y mave.	A. 1	No.
	wed the some of the	0. (Okay, okay. We'll punt the substantive
	19	discussio	n about that to the afternoon. You - let's
19 remember.		see if vo	u could turn to page 12, lines 5 to 7 of
20 Q. Okay. Are there	any other documents he 20	your testi	mony, you state that "Because Sammis is
21 may have shown you?	1002	eminned	with scrubbers and SNCR/SCR, no additional
22 A. None that I reme	HDCL.	amission	controls will be required for compliance
 Q. Okay. And what 	Wele your arsenssions	with CS	APR"; is that right?
24 with Mr. Jurusik about en	vironmental compliance at 24	with CS/	Page 104
	Page 102		
	1	Α.	That is correct.
1 Sammis?	sik to help me understand	0.	Okay. And CSAPR which I think is
2 A. I asked Mr. Juri	Sir to note the	referred	to as CSAPR, right?
3 how we know we are in	Compilation with the	Α.	Ves
4 existing regulations and	to Help the mideletta	0.	That's the Cross-State Air Pollution
5 the proposed regulations	I Clatco to city in comme		The state of the s
6 were and what - his jud	gment on the likely outcome	7 A	Yes,
7 of those regulations.		0	And SNCR is selective non-catalytic
8 Q. Okay Anythin	E CISC:	reduction	on control?
9 A. I remember disc	Sussing 510(b) and miles		Yes.
10 were what we were do	HIE IO PROCESS TEOLOGY TENE	0	Okay. For NOx?
11 remember having details	duscussions on the	170	Yes.
	als both before and after that	A.	And SCR, selective catalytic reduction
13 rule became final.	13	and the second second	
14 Q. Okay. And wh	at was the substance of the 1		
15 discussion about the coa	d combustion waste rule?	Α.	Yes. And what is your basis for believing that
16 MR LANG: Go	oing back to the, which keeps 1	6 Q.	And what is your oasis for boneving date
17 coming up, the confider	tiality issue, to the extent	7 no addi	tional emission controls will be required for
and the second of the second o	plant information, we can	8 complia	ance with CSAPR at Sammis?
18 that there is confidential	econd part of this	9 A.	Because modeling done to date by the
18 that there is confidential		n etate w	ould not indicate Sammis is a contributor to
19 keen it to the - for the s	ow, you need to tell me 2	o state w	
 keep it to the - for the s deposition. But, you kn 	ow, you need to tell me	1 nonatta	inment areas.
 keep it to the - for the s deposition. But, you kn whether it's company s 	ow, you need to tell me 2 2 2	nonatta	inment areas. And what modeling are you referring to?
19 keep it to the - for the s 20 deposition. But, you kn 21 whether it's company sp 22 THE WITNESS	ow, you need to tell me 2 2 2	nonatta Q.	inment areas.

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	Page 105		Page 107
1	Q. Okay. So Mr. Jurusik told you the state	1	A. I'm not sure. I see a lot of documents.
2	has done some modeling, and on that basis it's his	2	Q. Okay. Do you know if CSAPR - if under
3	opinion that nothing further will be needed at	3	CSAPR there are NOx allowances that are provided for
4	Sammis; is that right?	4	specific units?
5	A. That is correct.	5	A. I know there are NOx allowances. I do
6	Q. Okay. And you have not reviewed any of	6	not remember, you know, specific to the units.
7	that modeling.	7	Q. Okay. So do you know do you have any
8	A. No.	8	opinion as to whether NOx emissions from any of the
9	Q. Okay. Have you reviewed the CSAPR rule?	9	Sammis units are higher or lower than allowances for
10	A. Not in its entirety.	10	the Sammis plant under CSAPR?
11	Q. Okay. In any sense?	11	A. I don't remember the specifics on any of
12	A. I believe I've seen excerptions of the	12	the units.
13	rule.	13	Q. With regards to their allowances.
14	Q. Okay. And do you recall what those were	14	A. That's correct.
15	with regards to?	15	Q. So you have no opinion as to whether
16	A. Not specifically.	16	whether the Sammis units were over or under their
17	Q. Do you recall anything specifically about	17	allowances?
18	the CSAPR rule?	18	A. As far as opinion, I have an opinion
		19	they're all under.
19	A. No, just generalities. Q. Okay. Do you know if Mr. Jurusik has the	20	O. And how do you know that?
20		21	A. Based upon briefings I've had with our
21	modeling that you referred to?	22	environmental group.
22	A. I don't believe so, I believe the I	23	Q. Okay. So that's with Mr. Jurusik and his
23	am trying to recall the discussion. What I remember	24	team.
24	is that - I mean, CSAPR is a cross-state rule	24	Page 108
	Page 106		
1	that - and the modeling he referred to was some	1	A. Yes, yes.
2	state modeling that had been done.	2	Q. And so what were those briefings?
3	Q. Okay. But you don't know if he actually	3	A. Can you be more specific?
4	has that modeling himself.	4	Q. I mean, did he just tell you we are under
5	A. I do not know.	5	the allowances and that was it or is there some sort
6	Q. Or a report about that modeling.	6	of here is what the allowances are, here is what our
7	A. I do not know.	7	emissions are?
8	Q. Okay. But you have never seen a report	8	A. We had discussions on how we know we ar
9	about that modeling either.	9	in compliance, and they did have data on the
10	A. No.	10	emissions that they reviewed with me.
11	Q. Have you seen any document with regards	11	Q. Okay. And that was written data, like a
12	to Sammis's compliance with CSAPR?	12	document?
13	A. That's I don't know. That's a broad	13	A. Yes.
14	request.	14	Q. Okay. Was it a document actually
15	Q. Well, can you recall any document you've	15	analyzing are we in compliance with CSAPR?
16	seen with regards to Sammis's compliance with CSAPR?	16	 A. It was a document listing the levels of
17	A. I can remember seeing some documents with	17	emissions. I don't remember what else was on the
18	emission levels of some of the like SO-2 and NOx.	18	document.
19	Q. Of emission levels from the Sammis plant?	19	Q. Okay. Was that document ever produced to
20	A. Yes.	20	any of the parties?
21	Q. Okay. Any other documents?	21	A. I believe it was. I take that back.
22	A. Not that I remember.	22	Maybe not the specific document but information
22		23	concerning those emission levels may have been.
23	Q. Okay. What would you need to do to	24	Concerning those chilssion levels may have been

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Paul Harden

	Page 109		Page 111
2	A. No, I'm not.	1	Q. Okay. Have you ever seen any documents
2	Q. Okay. Any other basis for believing that	2	about the Clean Power Plan?
3	Sammis emissions are below the allowances under	3	A. I don't know.
4	CSAPR?	4	Q. Okay. You can't remember any documents
5	A. None other than what we've discussed.	5	you've seen?
6	O. Okay. And have you ever directly	6	A. That's correct. I do not remember.
7	evaluated whether SCRs would need to be installed on	7	Q. Okay, okay. Do you know, does FES have a
8	any of Sammis units 1 through 57	. 8	forecast of CO-2 prices"
9	A. No.	9	A. I don't know.
10	Q. Okay. And is that true not just under	10	Q. Okay. Have you ever seen one?
11	CSAPR but under any other environmental regulatory	11	A. No.
12	program?	12	Q. Okay. Do you ever speak with anybody in
13	A. Is what true?	13	the business development group?
14	Q. That you have never evaluated whether an	14	A. Yes.
15	SCR would be needed on units 1 through 5?	15	Q. Okay. And do you know, do they prepare
16	A. No, I have not.	16	forecasts of various commodity prices?
17	Q. Okay. And have you ever evaluated the	17	A. Yes.
18	potential cost of compliance with the recently	18	Q. Okay. And do you have any involvement in
19	propounded Clean Power Plan for the Sammis plant?	19	that?
20	A. What do you mean by evaluated?	20	A. No.
21	Q. Have you done any analysis of that of	21	Q. Okay. Do you ever use any of their
22	how - what sort of costs for the Sammis plant might	22	forecasts?
23	be established by the Clean Power Plan?	23	A. Are you referring relative to commodity
24	A. No.	24	prices?
	Page 110		Page 112
1	Q. Do you know if anybody at FirstEnergy	1	Q. Yes.
2	has?	2	A. No, I do not.
3	A. No, I do not.	3	Q. Okay. And how about with regards to
4	Q. Have you ever discussed that topic with	4	energy prices?
5	anybody?	5	 Energy prices in an indirect way.
6	A. Yes.	6	Q. How so?
7	Q. With who?	7	A. In - in assessing our forecasts for a
8	A. With Mr. Jurusik.	8	from a profit and loss standpoint for our plants.
9	Q. Okay. What were those discussions?	9	Q. Okay. And are those over what time
10	A. They were part of the discussions on the	10	length are those forecasts?
11	proposed rules as I explained previously. We went	11	A. I would prefer to do that in a
12	through what the proposed - the existing proposed	12	confidential session.
13	rules were.	13	Q. Okay. Fair enough. We can do that.
14	Q. Oh, so that was not with just regards to	14	Okay. And are you familiar with the proposed
15	the coal combustion waste but that was with regards	15	agreement under which FirstEnergy Solutions would
16	to the Clean Power Plan also.	16	sell its capacity, energy, and ancillary services to
17	A. Yes.	17	the companies?
18	Q. And did Mr. Jurusik have an opinion as to	18	A. Are you referring to the term sheet?
19	any costs that might apply to the Sammis plant under	19	Q. Yeah, that's certainly part of it, yes.
20	the Clean Power Plan?	20	A. Yes.
21	A. Not that I remember.	21	Q. Are you and are you aware that the
22	Q. And did he provide you any documents	22	term sheet is for a proposed transaction that's at
23	about that topic?	23	issue in this proceeding?
	A. No.	24	A. Yes.

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1	intervention, those types of things.	1	run on an as-needed basis any more, correct?
2	Q. On page 4, line 21 of your testimony, you	2	A. That is correct.
3	state that you have no reason to believe	3	Q. When did that change occur?
4	Davis-Besse's operating license will not be approved	4	A. I don't remember specifically.
5	for renewal. What is the basis for that statement?	5	Q. Can you give an approximation?
6	A. The basis for that statement would be	6	A. I'm sorry. I can't because I do not
7	knowledge of the requirements to go into an	7	remember.
8	application that are required to receive that	8	Q. So you don't recall if it was 2013 or
9	approval and quite a bit of experience having had a	9	sometime in 2014?
10	personal involvement in putting one of those	10	A. Yeah. I just don't remember.
11	applications together for the referenced Palisades	11	Q. Okay. Do you know why it was taken out
12	plant and the fact that all the appropriate	12	of the idle status?
13	information and all the appropriate requirements in	13	A. It had to do with economics, and I
14	my opinion have been provided in that application to	14	wouldn't want to answer any further on this portion.
15	achieve a successful renewal once the reviews are	15	The rest would be confidential.
16	finished and any associated contentions are	16	Q. Okay. I suspected that might be the
17	dismissed.	17	answer, but I wanted to check. Thank you. The W.H.
18	O. You would agree that it is possible that	18	Sammis plant was subject to a desulfurization
19	the license renewal will not be granted, correct?	19	retrofit, correct?
20	MR. LANG: Objection.	20	A. Yes.
21	A. I view it as unlikely.	21	Q. I think on page 8 of your testimony, line
22	Q. Unlikely yet possible?	22	9, you refer to that as a WFGD retrofit.
23	MR. LANG: Objection.	23	A. Yes.
24	A. Unlikely but possible.	24	Q. Is that correct?
	Page 170		Page 172
1	Q. Thank you. If in the event the license	1	A. Yes.
2	was not renewed, what effect will that have on the	2	Q. What was the start and end date of the
3	PPA?	3	WFGD retrofit?
4	A. The well, the PPA is not written and	4	A. Oh, I don't remember off the top of my
5	in place yet.	5	head.
6	Q. Let me rephrase. What effect if the	6	Q. Do you know if there was a revenue
7	license renewal is not granted, what effect will that	7	analysis that was completed prior to conducting the
8	have on the PPA term sheet?	8	WFGD retrofit?
9	A. Per Section 4 of the term sheet titled	9	A. I do not know.
10	"Facilities," it describes that the Davis-Besse power	10	Q. If I could turn you to page 5 of your
11	station being included in the agreement is subject to	11	testimony, I apologize for bouncing you around, but
12	the NRC renewing the license. Therefore, if the	12	page 5, line 15, let me know when you're there.
13	license were not reviewed, the plant would simply be	13	A. I am there.
14	dropped from the transaction.	14	Q. Speaking with respect to the W.H. Sammis
15	Q. Okay. Would FirstEnergy Solutions still	15	plant, you mention that on lines 4 to 15 \$52 million
16	pursue the PPA in that event?	16	spent each year on Ohio coal alone, correct?
17	A. I can't say. I don't know.	17	A. That is correct.
18	Q. Okay. The W.H. Sammis plant was idled to	18	Q. What do you mean by Ohio coal?
19	run on an as-needed basis in 2012, correct?	19	A. Coal that came from within the state of
20	A. Yes.	20	Ohio.
21	Q. Do you recall approximately when in 2012	21	Q. As in it was mined in Ohio?
22	that occurred?	22	A. I guess I can't specifically answer as to
23	A. No, I do not.	23	whether it was actually mined or not based upon what
24	Q. It is not currently in an idle status to	24	I know of the contract. I don't know enough to on

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	Page 181		Page 183
1	Q. You said that you couldn't answer the	1	A. That is correct.
2	question all inclusively. Why is that?	2	Q. Okay. And in your discussions with him,
3	A. Because there may be reasons that I can't	3	did you discuss the substance of the CSAPR rule?
4	remember sitting here.	4	A. Yes, to some extent. I can't
5.	Q. Fair enough.	5	Q. Okay. And did sorry. Did you discuss
6	A. Yeah. I gave you the ones I could	6	the fact that it's designed to ensure compliance with
7	remember.	7	particular National Ambient Air Quality Standards?
В	O. I can't ask for more than that. Do you	8	A. Yes, we did discuss that.
9	have any projections of how many employees will be at	9	Q. And if I refer to those as NAAQS going
10	the Davis-Besse plant in the future?	10	forward, will you understand what I mean?
11	A. No specific projections.	11	A. Yes.
12	O. Do you have the same expense projections	12	Q. Great. And did you discuss which NAAQS
13	that we discussed with regard to the W.H. Sammis	13	the CSAPR rule was designed to ensure compliance
14	plant?	14	with?
15	A. Yes.	15	A. Yes, we did.
16	Q. That does not delineate the specific	16	Q. Did you discuss the fact that those NAAQS
17	number of employees.	17	may change in the future?
18	A. It does not.	18	A. Yes, we did.
19	Q. And those projections are based on the	19	Q. And did you discuss whether the
20	approval of rider RRS?	20	requirements under CSAPR might change in the futur
21	MR. LANG: Objection.	21	if those NAAQS would change?
22	A. No. Those projections are our internal	22	A. We discussed that possibility, yes.
23	projections of, you know, the required expenses for	23	Q. And did you discuss whether Sammis would
24	continuing to operate the plant.	24	continue to be in compliance with CSAPR if the
	Page 182		Page 184
1	MR. SCHULER: All right. I have no	1	those NAAQS become more stringent?
2	further questions for the public record. Thank you	2	A. Yes, we did have discussions on that.
3	very much, Mr. Harden	3	Q. And did you reach any conclusions over
4	MR. LANG: Next on the list is Madeline	4	the course of those discussions?
5	Fleisher.	5	A. Yes.
6	MS. FLEISHER: Yes, okay. I should not	6	Q. And what were your conclusions?
7	have too much.	7	MR. LANG: I don't know if this is
8		8	confidential but.
9	CROSS-EXAMINATION	9	THE WITNESS: I don't believe so.
10	By Ms. Fleisher:	10	MR, LANG: Okay.
11	Q. Let's go ahead and get started.	11	A. I will stay out of confidential. At
12	Mr. Harden, my name is Madeline Fleisher. I	12	least I believe I can stay out of confidential space.
13	represent the Environmental Law & Policy Center. And	13	We discussed that we believe Sammis will continue to
14	I just wanted to ask you a few questions to follow up	14	be in compliance for what we know on the horizon
15	on your discussion with Mr. Fisk about the compliance	15	today, and we also discussed the essence of cap and
16	of the Sammis CSAPR. And do you understand when I	16	trade and in the and the ability to purchase
17	refer to CSAPR, that's the Cross-State Air Pollution	17	allowances if needed.
18	Rule, correct?	18	Q. Okay. A couple of follow-up questions
19	A. Yes.	19	about that answer. When you said that you believe
20	Q. And you could you just confirm my	20	Sammis would remain in compliance for what you know
21	understanding of your testimony that you discussed	21	on the horizon today, does - what is it that you
22	CSAPR compliance with Mr. Jurusik?	22	know is on the horizon or what were you referring to
23	A. Yes.	23	with that answer?
24	Q. Is that correct?	24	A. We are referring to the current NAAQS and

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1	what our environmental group believes will likely be	1	capital needs.
2	implemented in the foreseeable future that they can	2	Q. But would that be the same as operations
3	predict.	3	and maintenance?
4	Q. And does that include the pending update	4	A. Yes.
5	to the 2008 ozone NAAQS?	5	Q. Okay. And as far as you are aware, was
6	A. Yes.	6	the potential need to purchase allowances
7	Q. Okay. And when you talked about the	7	incorporated in any of the operations and maintenance
8	ability to purchase allowances, how - what role will	8	costs forecasts?
9	that play in compliance for Sammis in your view?	9	A. I don't know. I did not have input on
10	A. Our opinion right now is that that's I'll	10	the operation and maintenance expense.
11	say a contingency. We believe the plant will	11	Q. Okay. Do you know did you talk to Mr.
12	continue to be in compliance. If needed, the ability	12	Jurusik about the potential cost of allowances at
13	to purchase allowances exists.	13	all?
14	Q. Okay. Let's break that down a little bit	14	A. Not that I remember.
15	further. Am I correct in understanding that you're	15	Q. Do you know if he talked to anyone else
16	saying you believe Sammis will continue to be in	16	about that issue?
17	compliance without purchasing allowances even if some	17	A. I do not know.
18	of the NAAQS indicated in the CSAPR rules become more		Q. And going back to your conclusion, is
19	stringent?	19	that Sammis - I am just summarizing here - would
20	A. Our judgment on what we believe will be	20	probably not need to purchase allowances, what was
21	implemented we believe Sammis can continue to comply	21	that conclusion based on?
22	with.	22	A. Based upon the emissions today with the
23	Q. Okay. So am I correct then in	23	what I would call state-of-the-art equipment that we
24	understanding that you view the need to purchase	24	have installed, particularly on units 6 and 7 with
	Page 186		Page 188
1	allowances as something that is unlikely to happen?	1	the SCRs, and what the typical dispatch of the plant
2	A. Yes,	2	has been and would be expected to be. It's a
3	Q. Okay. And is the possibility of having	3	judgment forecast based upon historical experiences.
4	to purchase allowances incorporated anywhere in the	4	 Q. Okay. You mean historical experiences,
5	forecast for the Sammis plant?	5	emissions from the Sammis plant; is that correct?
6	MR. LANG: Objection, beyond the scope,	6	A. That's correct.
7	but if you know.	7	 Q. And did your analysis or Mr. Jurusik's
8	A. I don't know,	8	analysis involve any emission modeling of any kind?
9	Q. Am I my apologies if I am not	y	A. Not that I am aware of.
10	remembering correctly, but did you provide	10	Q. Okay. And are there any documents
11	information about costs for the Sammis plant to be	11	commemorating or relating to that analysis?
12	incorporated into the Lisowski projection?	12	MR. LANG: Objection.
13	A. Yes, for capital needs, capital	13	A. Yeah. I said there's no analysis or
14	expenditures.	14	modeling was done that I am aware of.
15	Q. Okay. But that the cost I guess	15	Q. Sorry, I took two steps ahead. I was
10	the cost information you provided for Mr. Lisowski's	16	asking are there any documents or written analysis
16		17	related to your overall conclusion that Sammis would
17	analysis did not include any cost related to the		continue to comply with CSAPR even if the related
17 18	purchase of the allowances?	18	MAAOC hangma more objective
17 18 19	purchase of the allowances? A. That is correct. Purchase after	19	NAAQS become more stringent?
17 18 19 20	purchase of the allowances? A. That is correct. Purchase after allowances would not be a capital expenditure.	19 20	A. None other than our records of historical
17 18 19 20 21	purchase of the allowances? A. That is correct. Purchase after allowances would not be a capital expenditure. Q. Okay. What sort of expenditure would	19 20 21	A. None other than our records of historical emissions.
17 18 19 20	purchase of the allowances? A. That is correct. Purchase after allowances would not be a capital expenditure.	19 20	A. None other than our records of historical

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	Page 145	-	Page 14
ī	"the Plants are good, efficient generation facilities	1	Q. Okay. When did you see those
2	which benefit the State of Ohio and, if the Economic	2	projections?
3	Stability Program is implemented, will be able to	3	A. I don't remember.
4	continue operating over the long term." Do you see	4	Q. Okay. Do you know since August or since
5	that?	5	the testimony was filed?
6	A. Yes.	6	A. Yes.
7	Q. Okay. Is it your testimony that if the	7	Q. Okay. Had you seen projections before
8	economic stability program is not implemented, the	8	your testimony was filed?
9	plants won't be able to continue operating over the	9	A. I don't remember if I saw projections
10	long term?	10	before. I only remember seeing projections in the
11	A. Can you repeat that?	11	last few months which would have been since.
12	MR. FISK: Sure. Could you read that	12	Q. Okay. Outside of those projections have
13	back.	13	you seen any analysis showing that Sammis or the
14	(Record read.)	14	Davis-Besse plants would be retired if the proposed
15	A. I don't know. I don't know if they will	15	transaction were rejected?
16	be able to continue to operate.	16	A. No.
17	Q. Okay. Do you have any opinion on that	17	Q. Okay. Has anyone told you that the
18	question as to whether they will be able to continue	18	plants would be retired if the proposed transaction
19	operating if this proposed transaction is not	19	were rejected?
20	approved?	20	A. No.
21	A. I guess I have the opinion that it is	21	Q. Do you recall any discussions as to
22	very questionable.	22	whether the plants would be permanently retired if
23	Q. Okay. What's your basis for that	23	the proposed transaction were rejected?
24	opinion?	24	A. No.
	Page 146		Page 148
3	A. My basis for that opinion is their profit	1	Q. Okay. Do you know who would make the
2	and loss statement with the way - with the levels of	2	decision whether to retire any of the plants involved
3	capacity and energy prices in the last, I don't know,	3	in this proceeding?
4	year or so.	4	A. By name, no. It could be a number of
5	Q. Okay. Have you seen profit and loss	5	people.
6	statements for any of the plants?	6	Q. Okay. Would you have any involvement it
7	A. Yes.	7	that in that decision as to whether to retire a
8	Q. Okay. When did you see those?	8	plant?
9	A. I can't say specifically when because I	9	A. I would likely be asked to provide an
10	see them on a periodic basis.	10	opinion.
11	Q. Okay. Just as a regular part of your job	11	Q. Okay. With regards to just the nuclear
12	you see them?	12	plant or also the coal plant?
13	A. Yes.	13	A. Both.
14	Q. Okay. Did you see one specifically with	14	Q. Have you ever been asked to provide such
15	regards to this proceeding?	15	an opinion?
16	A. The ones I've seen I don't consider to	16	A. No.
17	have anything to do with the - this proceeding.	17	Q. Okay. Are you aware that the companies
18	They are actuals.	18	have projected over the term of the proposed
19	Q. Okay, okay. Have you seen a projection	19	transaction that the plants would earn
20.	of future profits and losses from the plants?	20	approximately \$2 billion, nominal dollars, over the
21	A. Yes, yes, I have.	21	next 15 years?
	Q. Okay. And do you know who created those	22	A. Yes.
2			
22	projections?	23	Q. Does it seem likely to you that

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BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio)	
Edison Company, The Cleveland Electric)	
Illuminating Company, and The Toledo)	Case No. 14-1297-EL-SSO
Edison Company for Authority to Provide for)	
a Standard Service Offer Pursuant to R.C.)	
4928.143 in the Form of An Electric Security)	
Plan)	

APPENDIX B TO THE MOTION OF FIRSTENERGY SOLUTIONS CORP. TO QUASH THE SUBPOENA DUCES TECUM OF SIERRA CLUB

FILED UNDER SEAL

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

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