BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the Review of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, The Toledo Edison Company for Approval of Their Energy Efficiency and Peak Demand Reduction Program Portfolio Plans for 2013 through 2015.	:	Case No. 12-2190-EL-POR Case No. 12-2191-EL-POR Case No. 12-2192-EL-POR

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PROCEEDINGS

before Mr. Gregory Price and Ms. Mandy Willey Chiles, Attorney Examiners, at the Public Utilities Commission of Ohio, 180 East Broad Street, Room 11-A, Columbus, Ohio, called at 9:00 a.m. on Tuesday, October 23, 2012.

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VOLUME II

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Tuesday Morning Session,
October 23, 2012.

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EXAMINER PRICE: Let's go on the record. Good morning. The Public Utilities Commission has set for hearing at this time and place Case Nos. 12-2190-EL-POR, et al., being In the Matter of the Application of Ohio Edison Company, the Cleveland Electric Illuminating Company, and The Toledo Edison Company for Approval of Their Energy Efficiency and Peak Demand Reduction Program Portfolio Plans for 2013 through 2015.

My name is Gregory Price. With me is Mandy Willey Chiles. We are the attorney examiners assigned to preside over today's hearing. This is day two of our hearing. We'll dispense with any appearances today.

Our first order of business, is counsel prepared to take up the motion to admit the supplemental testimony of Dylan Sullivan?

MS. KOLICH: I am, your Honor.

EXAMINER PRICE: Okay. Mr. Allwein, why don't you briefly summarize your arguments for the Bench, and then we will allow the company and others to respond.

MR. ALLWEIN: Thank you, your Honor. Rule 4901-1-29(C) allows for additional testimony, which I've referred to as supplemental testimony, as long as such testimony could not with reasonable diligence have been filed and served within the time limits, will not unduly delay the proceeding, or unjustly prejudice any other party. And this is at the discretion of the attorney examiners.

I would emphasize for -- I guess to resummarize my arguments, prior to September 24, we didn't have sufficient information to make all of the analysis that we made here, and within the truncated time schedule, there was a lot of work to do. Mr. Sullivan completed this analysis in the most reasonable timeframe possible, given his other responsibilities, you know, which included both preparing his initial testimony and exhibits, looking through the 1,500 pages of the plan, plus another couple hundred pages of testimony, and intervenor objections and testimony.

And I think that he performed reasonable diligence to get this done. You know, the company is not going to suffer any prejudice. This is their information. They are quite familiar with it. It's a central issue in the case so I don't think it's going to unduly delay the proceeding. And, in fact, this summarizes information that would take a long time to get out of cross-examination of various witnesses if we were to proceed that way.

But I believe we have satisfied all of the requirements in Rule 4901-1-29(C), and we ask the attorney examiners to submit this supplemental testimony -- or approve this supplemental testimony for submission.

EXAMINER PRICE: Company.

MS. KOLICH: Thank you, your Honors. Before I start, I would like to have a couple of exhibits marked for identification, please.

EXAMINER PRICE: You may.

MS. KOLICH: The first being the deposition transcript of Mr. Sullivan, would be page 23 -- well, pages 22, 23, 24, 25. I would like that marked as Company Exhibit 8 for identification.

EXAMINER PRICE: It will be so marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MS. KOLICH: The second exhibit is a deposition transcript of Mr. Sullivan taken on pages 94, 95, 96 and 97. I would like that one marked as Company Exhibit 9 for identification, please. ROSE

EXAMINER PRICE: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MS. KOLICH: Does counsel have a copy of the transcript?

MR. ALLWEIN: I do not. And, counsel, I'm sorry, could you just repeat the page numbers again for me? Thank you.

MS. KOLICH: Sure. It's pages -- well, mine is four pages on one, so the pages I'll be referring to are pages 23 and 24 and pages 95 -- page 95.

Your Honors, NRDC has asked you to grant leave to file written supplemental expert testimony on the opening day of these hearings pursuant to Rule 4901-1-29(C). This request should be denied for several reasons.

First, the request is not within the scope of the rule. Second, the NRDC has failed to demonstrate that with a little diligence, they couldn't have provided this in a timely manner within the timeframes established by the Bench. And, third, the granting of the motion would unjustly prejudice the companies should it be granted.

As a preliminary matter, if you look at the test of 4901-1-29(C), it does contemplate the filing of oral testimony but not written testimony, a fact conveniently omitted both when Mr. Allwein summarized his position as well as in the motion itself at page 2 by simply putting an ellipsis over that little detail.

EXAMINER PRICE: But surely it's better for you he gave you written testimony than if he had come in when he was presenting Mr. Sullivan and said, "I would like leave to do some additional questions on cross." I mean, at least this lets you see it ahead of time.

MS. KOLICH: It does, but it also allows him several weeks to prepare and wordsmith that testimony and get it exactly the way he wants it, as opposed to having him explain it orally. But, yes, I -- I will concede that having the testimony, at least I know what he's planning to say, although -- additionally 4901-1-29(C) provides the Bench with the discretion to permit an expert witness to present oral testimony at hearing. In light of this -- well, strike that.

But let's assume arguendo that NRDC could overcome this detail and it was permitted to file prefiled supplemental expert testimony out of time. They also have the burden to demonstrate that they could not have provided it within the timeframes established with reasonable diligence. In the motion 3, NRDC claims that it received certain results as of September 18 during a meeting on September 24. Even if that's the case, NRDC had 10 days after receiving the information to assimilate the several pages of testimony that they have done here.

Given the conclusions reached by Mr. Sullivan that the plans are not designed to achieve the result -- or achieve the benchmarks as set forth in the statute, using the information as of September 18 would have required certain extrapolations in order to draw those conclusions.

There's nothing magical about September 18 when you are extrapolating. This information could have been requested in discovery. Plans were filed on July 31. Our first set of six sets of discovery from NRDC came in on August 1. As they've even acknowledged, this is a primary issue. If it was so primary of an issue, what took them so long to figure out that they needed this information?

So had they thought about it, they had ample time to ask for this information prior to September 18 or September 24, and if you --

EXAMINER PRICE: Can I clarify? You are saying they never asked for this information in discovery prior to September 24?

MS. KOLICH: That's my understanding. Counsel can confirm or correct me. I don't --

EXAMINER PRICE: I'll get around to asking them.

MS. KOLICH: Okay. But, your Honors, if you look at page 23 of Mr. Sullivan's deposition taken on October 12, I asked him a question starting on line 15, "Question: Okay, on line 7, you say that the company's focus fails to position them to meet statutory requirement years outside the plan. Do you see that?

"Answer: Yes," line 20.

So I'm referring then I guess to 2015 to 2025, so without reading the transcript, which you've got in front of you, generally Mr. Sullivan, on the fly, concludes that the -- the plans will not -- the plans will not achieve the results in the years 2015 through 2025, and if you look at page 24, line 8, "Okay" -- answer by Mr. Sullivan, "Okay. I said this is not really a quantitative point here, although you can see that the incremental energy savings actually goes down, the incremental energy savings that the company plans to get goes down in the year 2015, in the last year of the proposed plan. So if that trajectory continues, that certainly means, you know, it makes my answer with the target outside of the plan more difficult."

Now, that conclusion was drawn literally on the fly based on a question I asked with no analysis whatsoever. But more importantly, if you turn to page 95 of his deposition transcript, line 12, I ask him: "Okay. Just to recap here, I want to just button down a few things. So, Mr. Sullivan, you're not claiming the plan before the Commission, the design of the plan, won't hit the targets for '13 through '15, are you?

"Answer: Well, I'm not claiming that it will or it won't."

Now, this was on October 12, and at that point there was no mention of any analysis in progress. There was no notice to the company that an analysis was in progress, and instead, the NRDC waited until the eve of the hearing to put the company on notice that this was an issue for them and that they were in the process of doing this analysis.

Not only does that, it prejudice's the companies on several grounds. First, by not giving us notice, there is unfair surprise come the day of the hearing. Second, so let's assume that the analysis was in progress on the day of the deposition. Why wasn't the company informed that they were at least doing that, rather than waiting until the day of the hearing to file the motion and telling counsel on the -- two days before hearing of their intent to file this testimony?

Second, let's assume it wasn't done as of the 12th. Then they basically got the analysis done in eight days when they said they couldn't get it done in 10 days. Not only that, by allowing them to file this testimony after the company has deposed the witness and disclosed somewhat of their trial strategies and pointing out the flaws in their case, this gives them an opportunity to basically rehabilitate their direct case after the companies, more or less, disclosed their strategies, and that's prejudicial to the companies.

So to recap, first of all, written testimony is not contemplated in the rule, regardless of whether it was more beneficial to me to see it. Second, they could have gotten this finished within the timeframes allotted by the Bench in the procedural schedule; and, third, even if they couldn't, the company was deserving of receiving notice of this well before the eve of the hearing, and for those reasons this motion should be denied.

EXAMINER PRICE: Any other party care to weigh in on this before we get a response from Mr. Allwein?

Mr. Allwein.

MR. ALLWEIN: I would like to go back to some of the items that Kathy addressed. You know, these are calculations in addition to the testimony. I mean, it goes beyond wordsmithing, and again, going to the language of the rule, it talks about reasonable diligence, and there are only so many hours in a day and we had a lot of other issues that we were working on in this case.

We did request all of the companies' tables in our first set of discovery and there wasn't sufficient information in those tables to make all of the calculations that are presented in this testimony.

And, you know, I guess, I would bring up when you look at the items that counsel has cited in this transcript, I mean, No. 1, she's saying that he concluded this on the fly, and I believe 23 and 24 he's talking about the years looking into the future outside of the plan. Those are demonstrated in the Market Potential Study.

And then on page 95 he's not claiming that it will or it won't because as of that time, this wasn't even finished. I mean, it takes some time to figure out how to do something like this.

And I just have two more points. One is that, you know, there was reliance here, too. The company makes several statements both in the plan and in their testimony and they made these statements in the collaborative that the plan was designed to meet the benchmarks. So if we're wrong for taking some of those statements at face value -- well, I guess we proved we were wrong taking those at face value.

And, let's see -- sorry.

EXAMINER PRICE: I think we've heard enough. Thank you.

MR. ALLWEIN: All right.

EXAMINER PRICE: I think that the company makes some very good points, but we do want to give the parties a little bit of leeway here so we are going to do a couple of things. We will let you submit the testimony of Mr. Sullivan. However, you will make him available for an additional deposition if the company -- if the company desires before we put Mr. Sullivan on. And, second, we will give the companies considerable leeway at the time of his cross-examination to address these issues.

MS. KOLICH: Thank you, your Honor.

Just a point of clarification, when -- is Mr. Sullivan planning to go on the stand today, or given the Bench's ruling, can he go on a little bit later in the week?

EXAMINER PRICE: I think he was available Thursday afternoon, and I think we can probably squeeze him in then.

MR. ALLWEIN: Yes, that's fine. Is that okay with you guys?

MS. KOLICH: When is he available for deposition should we choose to go down that path?

MR. ALLWEIN: We could do it this afternoon or tomorrow afternoon.

MS. KOLICH: Well, I am in the hearings. I don't want to miss the hearings for a deposition.

EXAMINER PRICE: But you have so many other co-counsel. I'm sure somebody can cover it.

MS. KOLICH: Your Honors, I'm lead. Hearing it is easier than reading it, but if the Bench insists on it, then I will make myself available during the hearing for the deposition in order to accommodate the NRDC.

MR. ALLWEIN: Thank you, counsel, and

thank you, your Honors.

MS. KOLICH: I note I will work it out offline with counsel.

EXAMINER PRICE: Perfect. If there is a problem, bring it to our attention.

MS. KOLICH: Thank you.

EXAMINER PRICE: Anything else we need to address before we take this up before we take on our first witness?

MR. ALLWEIN: If it please, your Honors, I did mention yesterday there was an outstanding motion by the Sierra Club for local public hearings.

EXAMINER PRICE: We are still considering it.

MR. ALLWEIN: Okay. Thank you.

EXAMINER PRICE: Okay. The company can call its next witness.

MS. DUNN: The company calls Bradley D. Eberts.

(Witness sworn.)

EXAMINER PRICE: Please be seated and state your business address for the record.

Let's go off the record.

(Discussion off the record.)

EXAMINER PRICE: Back on the record.

MS. DUNN: Thank you, your Honor.

THE WITNESS: My name is Bradley Dale Eberts. My address is 76 South Main Street, Akron, Ohio 44308.

EXAMINER PRICE: Please proceed.

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BRADLEY D. EBERTS

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

DIRECT EXAMINATION

By Ms. Dunn:

Q. Mr. Eberts, do you have your testimony in front of you?

A. Yes.

MS. DUNN: I would like to mark the testimony of Bradley D. Eberts as Company Exhibit 2.

EXAMINER PRICE: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MS. DUNN: Thank you.

Q. Mr. Eberts, are you familiar with Company Exhibit 2?

A. Yes.

Q. And that is your testimony in this case?

A. It is.

Q. Was the testimony prepared by you or

somebody under your direction?

A. Yes.

Q. And do you have any corrections to your testimony?

A. No, I do not.

Q. If I asked you the same questions here today, would your answers be the same?

A. Yes.

MS. DUNN: Okay. The witness is open for cross.

EXAMINER PRICE: Thank you.

Mr. Poulos.

MR. POULOS: No questions, your Honor.

EXAMINER PRICE: Mr. Oliker.

MR. OLIKER: No questions.

EXAMINER PRICE: ELPC.

MR. McDANIEL: No questions.

EXAMINER PRICE: Mr. Lavanga.

MR. LAVANGA: No questions, your Honor.

EXAMINER PRICE: OEG.

MS. KYLER: One question, your Honor.

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CROSS-EXAMINATION

By Ms. Kyler:

Q. I don't think you will be surprised by my question. What's the amount of lost distribution revenue that the companies estimate they are going to recover over the proposed EE/PDR plan period?

A. I have an estimate for 2013, and that's based on -- the estimates are based on the savings, the estimated savings, and it's applied to the distribution rates only; the kilowatt-hour rates in the RS, the over 5 KW rate in GS, and then the demand rates in GP, GSU, and GT, and that estimate is roughly $20 million for 2013.

Q. And you don't have an estimate for 2014 or 2015?

A. I do not have an estimate at this point.

MS. KYLER: All right. Thank you. No further questions.

EXAMINER PRICE: Thank you.

Consumers'.

MS. KERN: No questions, your Honor.

EXAMINER PRICE: Mr. Somoza.

MR. SOMOZA: No questions, your Honor.

EXAMINER PRICE: Sierra Club has no questions. NRDC.

MR. ALLWEIN: I have a few questions, your Honors. Thank you.

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CROSS-EXAMINATION

By Mr. Allwein:

Q. Good morning, Mr. Eberts. How are you?

A. Good morning. Good.

Q. Following up on Ohio Energy Group's question, you mentioned some of the different customer classes, or those were actually tariff rates, correct?

A. Those are tariff rates, correct.

Q. Okay.

A. Base rates.

Q. I'm sorry?

A. Those are base rates. None of the riders, just base rates.

Q. Okay. And can you divide that 20 million up even in approximation by customer class?

A. I don't have that number in front of me. I mean, I can't tell you what it is. The majority of it would be in the residential class and GS class, which is the small mercantile class.

Q. Now, just if I may, when you say "majority," I mean, are you saying just more than 50 percent, or do you have a rough estimate of percentage that would be assigned to the residential -- I'm sorry, was it GS?

A. Right, correct.

MS. DUNN: Objection, your Honor. The witness stated he didn't know that information.

MR. ALLWEIN: He did state it was a majority.

EXAMINER PRICE: He can answer if he knows the question. Overruled -- knows the answer, overruled.

A. It's -- those classes would get, I'll say, more than 75 percent of the number, the amount.

Q. Okay. And not looking for a percentage at all here, do you know, are any of these assigned to the GT customer class, any percentage?

A. There are lost distribution revenues assigned to the GT class.

Q. But you don't have a percentage of what that might be, even a rough guess?

MR. LAVANGA: Objection, asked and answered.

EXAMINER PRICE: Sustained.

Q. All right. Okay. Mr. Eberts, you state in your testimony that the Revised Code Section 4928.66 (A)(1)(a) sets forth the standards for calculating the energy -- the energy efficiency benchmarks; is that correct?

A. Which page are you referring to?
Q. I'm sorry. I had PDR up. I'm sorry. That would be page 3, and it begins on line 16.
A. Yes.
Q. And just I know -- I know that -- well, are you an attorney?
A. I am not.
Q. Okay. And I know you are not an attorney, but does the section of the Revised Code you are referencing here require the companies to achieve an additional amount of energy savings each year?
MS. DUNN: Objection, vague; asking for interpretation of the statute.
EXAMINER PRICE: We'll overrule you on asking for an interpretation of the statute since he has cited the statute in his actual testimony. But perhaps Mr. Allwein can phrase the question a little more precisely.
Q. Okay. In the statute are the companies responsible for incremental increases in energy savings each year?
A. In the statute I believe they have how much is incremental to each year, and it's cumulative so we have to provide the cumulative savings each

year.

Q. Okay. And is it fair to use the term "incremental" to describe the additional energy savings that is required by the statute of the companies each year in terms of energy savings?

A. That I'm not sure of. I don't know.

Q. Okay. And just so we're clear, the statute requires an additional amount of energy savings equal to 9/10 of 1 percent of the three-year annual average savings in 2013; is that correct? If you need to, you can refer to -- I'm sorry to interrupt you. I'm sorry. Go ahead.

A. I don't have the statute in front of me, but there is an amount that is part of the accumulation for 2013, and I do believe it's .9 percent, point.

Q. Okay. Thank you. And for 2014 is the additional amount of the three-year annual average sales -- I'm sorry. Is the additional energy efficiency equal to the -- strike that. I'll start this again.

Does the statute require that in 2014 an additional amount of energy savings equaling 3 percent of the one-year average sales, does the statute require the company to achieve that?

A. Again, it's a cumulative savings, but the incremental amounts of 2014 as part of the cumulative savings, I believe, is the 1 percent.

Q. Okay. And is the incremental amount in 2015 also 1 percent?

A. I believe, yeah, it is the same percentage, the incremental savings for 2015. That goes into the cumulative savings, is 1 percent in 2015 as well.

Q. All right. And if I look at Exhibit BDE-1, column 9 -- let me know when you're there.

A. I'm there.

Q. All right. Can you explain where you are getting the numbers in column 9?

A. Those -- those come from the Ohio Revised Code, and they're each year they have an amount, and that's the cumulative of those amounts for -- for the year starting in 2009.

Q. All right. So for -- for instance, just to be clear, for Cleveland Electric Illuminating in -- in 2013, column 9 states that the cumulative benchmark is 3.2 percent. Do you see that?

A. Yes, I do.

Q. Okay. And can you tell me how that number was calculated?

A. In the Revised Code. There's amounts for each year and starts in 2009, and then 2010 there is an incremental amount so that as you cumulate those, you get up to 3.2 percent for 2013.

Q. Okay. Thank you. And you figured out what the cumulative benchmark was in column 9, correct, for each year, from 2010 through 2015, or it's presented here; is that correct?

A. Correct.

Q. All right. And did you also calculate the amount of incremental benchmark that the companies would be required to achieve and the individual companies would be required to achieve in 2013, 2014, and 2015?

THE WITNESS: Could you reread that question, please.

(Record read.)

Q. I apologize. Let me restate that question. Did you calculate the incremental amount of energy savings that the companies are required to achieve in individual years 2013, 2014, and 2015?

A. No; just on my exhibit I calculated the cumulative savings.

Q. All right. Thank you. And if we wanted to calculate the incremental savings required to be achieved by each company in program years 2013, 2014, and 2015, how would we do it?

A. You're talking about the benchmarks? How do you calculate the incremental benchmark?

Q. Yes, sir.

A. I made -- I haven't made that calculation, but I suppose you could subtract the two numbers here and come up with a difference between the two years on the benchmarks in column 10.

Q. Okay. Could it also be done by multiplying the baseline number in column 8 by the incremental amount required by the statute?

MS. DUNN: Objection. He said he didn't make that calculation.

EXAMINER PRICE: He is asking whether it could be done. Overruled.

A. Can I multiply a baseline number times a percent and come up with a number? You could do that, yes.

Q. Okay. And would that number -- if we did it the way that I'm proposing to you, would that equal the company's incremental benchmark for a given year? For example, if we took CEI's baseline for 2013, which is 19,000 gigawatts, and multiplied that by .9, which is the incremental additional requirement in the statute, would that give us the incremental benchmark required by the companies to be achieved in 2013, in this case CEI?

A. I'm not familiar with the term "incremental benchmark" that you're -- you're talking about. I don't want to make a definition of what incremental benchmark is. I mean, we've provided the cumulative benchmarks for -- for the targets. I'm just not sure that the term "incremental benchmark," if you want to call it that, I just know that's -- you could call it an "incremental benchmark" but that's not a term I'm familiar with.

Q. All right. Where I'm getting incremental benchmark is -- it died.

EXAMINER PRICE: Let's go off the record.

(Discussion off the record.)

EXAMINER PRICE: Back on the record.

MR. ALLWEIN: Your Honor, may I approach the witness?

EXAMINER PRICE: You may.

MR. ALLWEIN: And just to explain, I just have a copy of the statute here just, perhaps, for clarification.

MS. DUNN: 4928.66?

MR. ALLWEIN: Yes, sorry.

Q. (By Mr. Allwein) Okay. Now, I want to clarify the source of the term "incremental benchmarks" so that we have an understanding for the rest of these questions, for which I don't have many more.

But if you look at the statute, it talks about the -- in specifically 4928.66(A)(1)(a), it discusses the savings requirement, I'm about 11 lines down, beginning with the words "The savings requirement using the three-year average." Do you see that?

A. Yes.

Q. All right. It says, "shall increase to an additional 5/10 of 1 percent in 2010, 7/10 in 2011, 8/10 in 2012, 9/10 in 2013." Do you see that?

A. Yes.

Q. All right. And you discussed earlier those are the percentages that you added up to get the cumulative benchmark in column 9; is that correct?

A. Yes.

Q. Thank you. And I'm using incremental to refer to these individual percents that are assigned to each year. Is that okay?

A. Yeah. The rule says "additional," but you're calling it "incremental."

Q. That's correct. Incremental being in addition to what was achieved in the previous years.

A. Yes. It is additional. I mean, the rule says additional.

Q. Okay. I'm also getting incremental because that's -- the company in their annual portfolio status reports uses the term "incremental" to describe these percentages.

MS. DUNN: I'm going to object. He -- he can answer if he is familiar with the plans, but he's -- keeps answering your question which he keeps saying additional and you keep asking him the same question.

MR. ALLWEIN: Well --

EXAMINER PRICE: I think he is just asking if he understands what he means when he -- if the witness understands what counsel means when counsel says "incremental." So let's cut through all of this.

Do you understand when he says "incremental," he means the year-by-year increase?

THE WITNESS: Of the percentage, yes. It's additional percentages.

EXAMINER PRICE: Is that correct,

Mr. Allwein?

MR. ALLWEIN: Yes, sir. Thank you.

MS. DUNN: Thank you.

EXAMINER PRICE: Let's proceed.

Q. (By Mr. Allwein) If I wanted to calculate the incremental benchmark for Cleveland Electric Illuminating in 2013, could I multiply the 19,000 gigawatt number that's the baseline number in column 8 by the incremental amount in the statute for 2013 which is 9/10 of 1 percent?

A. If you word it just a little differently and say what's the additional amount that goes into the achieving a cumulative baseline, I would say yes.

Q. Okay. And subject to check, if I make that calculation, 19,000 gigawatts times .9 percent, can you agree, subject to check, that it would be 171 -- 171 gigawatts?

A. Taking 1 percent of -- I'm sorry, what year was -- what company and what year were you talking about?

Q. I'm sorry. It's Cleveland Electric Illuminating, and it is year 2013. So it's .9 percent according to the statute and 19,000 gigawatts of a baseline.

A. So .9 percent times 19,000 you're saying is incrementally, is additionally -- what number do you want me to accept, subject to check?

Q. That would be the baseline of the incremental amount.

A. It would be --

Q. I'm sorry, it would be the amount of savings -- no, I'm sorry. Hang on.

A. Okay.

Q. Let me start over. Do you have a calculator?

A. I do not.

Q. All right. Okay. What I'm asking you is I'm trying to figure out what the additional amount of energy savings would be for each year of the program -- of the program plan. And so would you agree with me, subject to check, that 19,000 times the .9 percent in the statute gives you the additional benchmark that the companies required to achieve in that -- in 2013?

A. Were you going to give me a number to check?

Q. I'm sorry, subject to check. I thought you did the math over there. Subject to check, it would be 171 gigawatts.

A. Subject to check, that the 171 would be the additional amount of the cumulative savings of .9 percent times the 19,000.

EXAMINER PRICE: Stop. Wait. Counsel, do you have a calculator for the witness?

MR. ALLWEIN: I have a phone with a calculator on it if he wants to use that.

EXAMINER PRICE: She has an iPad with a calculator app. He will promise to only use the calculator. I can see over you so I can see what you're doing.

Forget the subject to check stuff; ask him the question to form the calculation.

MR. ALLWEIN: All right.

Q. (By Mr. Allwein) I'm trying to calculate the additional or incremental benchmark required by the Cleveland Electric Illuminating for 2013. And I believe that the way to calculate that, and I'm asking for your agreement, would be to multiply 19,000 from column 8 by the .9 percent in column 10. I'm sorry, in the statute.

A. The .9 percent in the statute, the additional amount that is cumulative savings, the 19,000 times .9 is 171.

Q. Okay. And so 171 would represent the incremental, or as you are referring to it, additional benchmark required for CEI to achieve in year 2013.

A. It's part of the cumulative savings for 2013.

Q. But that is added in 2013; is that correct? In other words, 2012 doesn't include it but 2013 does.

A. Right. The additional amount for the cumulative savings in 2013 is .9 percent.

Q. All right. And we've just calculated, subject to check, that that would be 171 gigawatts; is that correct?

A. That is correct.

Q. All right. And if we did the same thing for year 2014 using the appropriate numbers, subject to check, the additional amount of savings required would be 193 gigawatts; is that correct?

A. The additional .1 percent -- the .1 percent -- I'm sorry, the additional 1 percent would in the cumulative savings be, yeah, 193 --

Q. Okay.

A. -- in 2014.

Q. Okay. Thank you. And if we were to do that for Cleveland Electric Illuminating in 2015, the additional amount would be 195 gigawatts.

A. If the additional amount for the cumulative savings would be 195.

Q. Okay. And I could do that for the two companies for the three years using the appropriate numbers; is that correct?

A. Yes.

Q. Okay. And -- all right. So for Ohio Edison in 2013, it would be .9 times 24,294 gigawatts; is that correct?

A. Correct.

Q. And that would give us 219 gigawatts?

A. That is correct.

Q. All right. And for Ohio Edison in 2014, it would be 24,599 gigawatt hours times 1 percent, and, subject to check, that would be 246 gigawatt hours; is that correct?

A. That is correct.

Q. All right. And for Ohio Edison in 2015 it would be 24,855 gigawatt hours times 1 percent, and that would give us 249 gigawatts hours, subject to check; is that correct?

A. That is correct.

Q. And if I was to do that for Toledo Edison in 2013, it would be 10,624 gigawatts, hours times .9 percent, which would be 96 gigawatt hours; is that

correct?
A. 96, did you say?
Q. Yes, sir.
A. That is correct.
Q. All right. And for Toledo Edison in 2014, it would be 11,014 gigawatts hours times 1 percent, and that would give us 110 gigawatt hours of additional or incremental benchmark.
A. It's the additional amount for the cumulative savings of 110.
Q. All right. Thank you. 110 gigawatt hours, just to be clear, correct?
A. Correct.
Q. All right. And for Toledo Edison in 2015 it would be 11,442 gigawatt hours times 1 percent, and that would be 114 gigawatt hours; is that correct?
A. That is correct.
MR. ALLWEIN: All right. Thank you. I have no other questions, your Honor. Thank you.
EXAMINER PRICE: Thank you.
Mr. Dougherty.
MR. DOUGHERTY: No questions.
EXAMINER PRICE: Mr. Williams.
MR. WILLIAMS: No questions.

EXAMINER PRICE: Mr. Parram.

MR. PARRAM: No questions.

MS. DUNN: We may have redirect given that this is based on this supplemental testimony we had, we got this weekend, could we have a few minutes?

EXAMINER PRICE: You have 10 minutes.

Off the record.

(Recess taken.)

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

Ms. Dunn.

MS. DUNN: Thank you for the break. We do not have any redirect.

EXAMINER PRICE: Thank you. Any questions for the witness?

EXAMINER CHILES: No.

EXAMINER PRICE: I do have one question.

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EXAMINATION

By Examiner Price:

Q. Going back to Exhibit BDE-1, you had said that before -- you were talking to Mr. Allwein -- there were two alternative ways to calculate the additional energy savings required from year to year, the exercise you went through with Mr. Allwein, and then simply subtracting the two -- the year over year increases in column 10; is that correct?

A. That's correct.

Q. If there were discrepancies in the values, would that just be because of rounding or other marginal differences?

A. No. The baseline that you use to calculate it is slightly different from year to year so it's based on the last three years. The baselines are a little bit different so the calculation would be a little bit different.

EXAMINER PRICE: All right. That will work. Thank you. You are excused.

EXAMINER CHILES: I believe we are taking Mr. Fitzpatrick.

MS. KOLICH: Thank you. The company will call Mr. Fitzpatrick to the stand, please.

MS. DUNN: We do need to move to admit Company Exhibit 2.

EXAMINER PRICE: Any objections to the admission of Company Exhibit 2?

Hearing none, it will be admitted.

(EXHIBIT ADMITTED INTO EVIDENCE.)

EXAMINER PRICE: Thank you.

(Witness sworn.)
EXAMINER CHILES: You may be seated.
THE WITNESS: Thank you.

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GEORGE L. FITZPATRICK

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

DIRECT EXAMINATION

By Ms. Kolich:

Q. Good morning, Mr. Fitzpatrick.
A. Good morning.
Q. Sorry. Would you please state your name and business address for the record.
A. George L. Fitzpatrick, business address is 888 Veterans Highway, Suite 120, Hauppauge, H-A-U-P-P-A-U-G-E, New York 11788.
MS. KOLICH: Your Honor, I have a document entitled Direct Testimony of George L. Fitzpatrick on behalf of the Ohio Edison Company, the cleveland Electric Illuminating Company, and The Toledo Edison Company, and I would like it marked as Company Exhibit No. 3 for identification.
EXAMINER CHILES: It will be so marked.
MS. KOLICH: Thank you.
(EXHIBIT MARKED FOR IDENTIFICATION.)

Q. Mr. Fitzpatrick, do you have a copy of what has just been marked as Company Exhibit No. 3, for information?

A. Yes, I do.

Q. Is that your direct testimony in this proceeding?

A. Yes, it is.

Q. Was that direct testimony prepared by you or under your direct supervision?

A. Yes, it was.

Q. Do you have any corrections to the testimony presented in Company Exhibit 3?

A. No.

Q. So if I asked you the same questions that are set forth in Company Exhibit 3 today, your answers as set forth in the document would be the same; is that correct?

A. Yes, they would.

MS. KOLICH: With that, your Honors, the witness is available for cross-examination.

EXAMINER CHILES: Thank you.

Mr. Poulos.

MR. POULOS: No, your Honor, thank you.

EXAMINER CHILES: Mr. Oliker.

MR. OLIKER: No, thank you, your Honor.

EXAMINER CHILES: The ELPC.

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CROSS-EXAMINATION

By Mr. McDaniel:

Q. Mr. Fitzpatrick, good morning. My name is Nick McDaniel. I'm from the Environmental Law & Policy Center.

A. Good morning.

Q. I have just a few questions for you.

A. Okay.

Q. On pages 10 and 11 of your testimony, you talk about the costs of using the pro rata method to measure savings. At the bottom of page 10, starting at line 22, do you see where it states, "As I testified in the Companies' first Portfolio case in Case No. 09-1947-EL-POR, et al., the use of the pro rata methodology increased costs during the three years those plans were to be in effect by approximately $51.2 million because additional programs and measures had to be included in the plan to make up for the shortfall created by only allowing a portion of those savings to be recognized in the initial year of implementation."

Do you see that?

A. I do.

Q. Now, in this sentence you are saying that because of the pro rata methodology, the company had to implement more programs and measures in order to meet the annual benchmarks; is that correct?

A. Yeah. When -- when the -- when we started deploying programs in Ohio, you had to do a lot more early on, in essence, overcomply because you had to catch up. You had to meet the first-year goals, but you didn't have a full -- truly a full year so you had to overcomply.

Q. Now, this $51.2 million figure, does that take into account any of the benefits from those programs?

A. No. That was purely cost.

Q. So it wouldn't take into account any of the energy savings.

A. No.

Q. Now, those programs that have to be implemented, they are required to pass the TRC test; is that correct?

A. The portfolio is required to pass the TRC, not individual programs.

Q. I'm sorry. So the -- the portfolio plan of which the programs are a part is required to pass the TRC test; is that correct?

A. Yes.
Q. So assuming those programs did pass the TRC test, they could be cost effective; is that right?
A. The portfolio would be cost effective.
Q. If those programs pass the TRC test, they would be cost effective; is that correct?
A. If an individual program passed the TRC?
Q. Yes.
A. Yes, then by definition of the TRC that we are required to use, they would be deemed cost effective by the Commission.
Q. Would you agree that FirstEnergy's energy efficiency programs reduce electricity consumption across its service territory?
A. According to M&V, yes.
Q. Would you also agree that when a FirstEnergy customer, say, screws in a CFL, that customer's energy usage goes down immediately?
A. All else equal, yes.
Q. Would you also agree that if we have two customers, Customer A and Customer B, and Customer A installs a CFL on January 2, 2013, and Customer B installs a similar CFL on December 30, 2013, Customer A will save more electricity from that CFL in the

year 2013?

A. All else equal, yes.

Q. Let me direct your attention to page 10, line 11 of your testimony. Do you see where you state that "The lifetime savings for both pro rata and annual methodologies are the same; it's just a matter of when you recognize the savings for compliance and reporting purposes."

I just have a couple of clarifying questions about that. So let's say a customer could buy a FirstEnergy incentivized refrigerator on June 1, 20 -- 2013, correct? Using the annual methodology, FirstEnergy could count an entire year's worth of savings for the year 2013, correct?

A. I'm sorry, say that again. I apologize.

Q. Okay. That's okay.

A. I was trying to follow the first part. Now, what happened? Sorry.

Q. Sure. The FirstEnergy customer buys an incentivized refrigerator and installs it on June 1, 2013.

A. Okay.

Q. Using the annualized methodology, FirstEnergy could count an entire year's worth of savings for that refrigerator in the year 2013, correct?

A. That's correct.

Q. If the refrigerator has an expected lifetime of, say, 10 years, FirstEnergy could count a year's worth of savings in each of those years that follow, correct?

A. Yes. Given your hypothetical, yes.

Q. Now, in the year 2023 when that tenure of useful life is up, so the 10th year of useful life would be up in June of 2023 --

A. Well --

Q. -- would FirstEnergy --

A. According to your hypothetical, the ten years are up at the end of 2022.

Q. Well, that was simply my question.

A. Yeah.

Q. FirstEnergy, would they count savings in the year 2023 for that refrigerator?

A. No.

Q. On page -- pages 11 and 12 of your testimony starting on page 11, line 21, you list I think it's 23 states that you testify use annualized reporting when measuring energy savings results; is that correct?

A. Yes.

Q. How many of those states have statutes that allow the utilities to count only the first year of savings toward the benchmarks?

A. I don't know that.

Q. Did you know that some states only allow utilities to count only the first year of energy savings toward benchmarks?

A. Towards the benchmarks that the states have set up, I wouldn't know. All I know is I'm talking about annual reporting versus pro rata reporting.

Q. Okay. Did you know that Ohio Revised Code Section 4928.66 allows lifetime savings to count toward benchmarks?

A. Yes, I did, as determined by the TRM.

MR. McDANIEL: I have no further questions.

EXAMINER CHILES: Thank you.

Mr. Lavanga.

MR. LAVANGA: No questions, your Honor.

EXAMINER CHILES: Ms. Kyler.

MS. KYLER: No questions, your Honor.

EXAMINER CHILES: Ms. Kern.

MS. KERN: No questions, your Honor.

EXAMINER CHILES: Mr. Somoza.

MR. SOMOZA: No questions, your Honor.
EXAMINER CHILES: Mr. Allwein.
MR. ALLWEIN: Just a few questions, your Honor.

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CROSS-EXAMINATION

By Mr. Allwein:

Q. Good morning, Mr. Fitzpatrick. My name is Chris Allwein, and I'll be asking questions on behalf of Natural Resources Defense Council.
A. Good morning.
Q. You're sponsoring the Market Potential Study for all three companies, correct?
A. Yes, I am.
Q. And the Market Potential Study was prepared for all three companies under your supervision; is that correct?
A. That's correct.
Q. Your testimony on page 6 you state that you rely on the valid customer mail and telephone surveys, on line 19; is that correct?
A. Yes, it is.
Q. And I don't mean to keep flipping around, but I'm just trying to make the same point, the Market Potential Study on page 34, it states that the

assumed participation rates are critical --

MS. KOLICH: Counsel, could you hang on until I find it? I apologize.

MR. ALLWEIN: Sure.

MS. KOLICH: I should have had it up. Page what?

MR. ALLWEIN: Page 34.

MS. KOLICH: Thank you.

Q. (By Mr. Allwein) Okay. So the Market Potential Study states that the assumed participation rates are critical to the estimates of achievable potential, correct?

A. That's correct.

Q. All right. So I want to ask you how are the data from customer surveys -- surveys used in the calculation of participation rates?

A. I'm just going to find an example so I can walk you through it. Let's look at I think it Appendix D, question 11A.

Q. Hang on a second. I guess sometimes the paper copy is superior. A, okay I'm on Appendix D, question 11A?

A. Question 11A.

MR. ALLWEIN: Before you continue, Mr. Fitzpatrick, can we get him another microphone?

I can't understand.

EXAMINER PRICE: I think it's the alignment of the microphone.

THE WITNESS: Oh, I'm sorry.

MS. KOLICH: Is that B or D?

MR. ALLWEIN: 11D, I believe. D as in --

THE WITNESS: D1. I'm sorry, are you ready? Appendix D, question 11A. Actually, you know what, Mr. Allwein? Look at question 11E. That's an even better example.

Q. All right. I'm there.

A. Okay. So what happens is that we develop these surveys which we've used now for two market potential studies, one in '09 and one in 2012. And in 2012, we had 852 respondents from Ohio Edison, 776 respondents from Cleveland Electric Illuminating, and 856 respondents from Toledo Edison so we have significant robust response population for samples for these three operating companies.

We have an extensive survey that looks at certain appliance saturation, certain information about propensity to participate, also information about what customers have done in the last five years. And so it's a fairly extensive survey, and I find when I look at this data, and not just myself but people that work for me, as well as people in the FirstEnergy's energy efficiency team, the data is almost self-checking because if you look -- look, for example, at question 11E and look at the answers, you can see that for Ohio Edison, Cleveland Illuminating, and Toledo Edison, if you look at the responses across the board about what, for example, what did you do in the last five years, the average was 38.4 percent

If you look at the responses across the three operating companies, there's no statistically significant difference, 95 percent of confidence level concerning that particular response. If you then look at -- if they plan to make a change or consider a change, those are the two measures, those are the two metrics we look at when we look at the base case participation and the high case participation.

So the base case participation would be we plan to make a change, and then the high case would be we plan to make a change or we've considered making a change. So we are getting real ground truth information from these customers on a wide variety of topics, saturations, and we can check this information with what we expect, for example, the appliance life, appliance life for refrigerator, somewhere around 12 years.

When I do the math on the responses here, the changes made in the last five years, it comports with 12-year life. So this information is used in a variety of ways not only to estimate achievable potential, but also to look at what's been done, what the free market has done, and what customers -- what particular appliance uses customers have in their homes by operating company and also demographics about the customers themselves.

And so, if I may make one more statement, the response rates that we get in Ohio are in the 20 percent range, which is fairly high for this type of survey. It's a very detailed survey. It's a mail survey. We get great response rates.

And, by the way, I see those response rates. I do a lot of survey work as part of my work with FirstEnergy. I see 20 percent response rates in Pennsylvania. I see them in Ohio for a number of things we do. Customers are very knowledgeable. They are informed, and their data that they present comports with reality in terms of what we know about appliance lives and about past program performance.

The FirstEnergy efficiency team, by the

way, looks at this data and compares with what they are seeing with their programs, so the data really holds together quite well and is a very valuable resource.

Q. All right. Thank you. I have two questions. One, I just wanted to clarify you said that the high case is the plan to make a change, which is, I think, the third line down, plus considering the changes; is that correct?

A. That's correct.

Q. All right. And then you said something interesting, and forgive me if this is obvious, but you were saying that you can use this information to discern that refrigerators have, on the average, a 12-year life. Can you tell me how you do that?

A. Well, I know from experience we're looking at a 12-year life, approximately, for a refrigerator.

Q. Okay.

A. If you take the 38.4 percent and divide it by 5, it gives you an average or an idea of what people are replacing on a yearly basis. So one-eighth of the stock changes every year. It's a 12-year life.

Q. I'm sorry, just to be clear, I'm sure it's me, not you, but you're saying that in order to figure out basically those folks that made the change which is, I think, the second row down, that basically you're assuming because of the question where you say that if you've made the change in the last five years, so you are dividing 38.4 -- well, 38.4 is the average, but you are dividing the response percentages by the -- by year, right?

A. Yeah.

Q. Okay.

A. And you get -- what you do is you get an idea of what kind of replacement rates you're seeing in this survey, which comport well with what we know about life cycle of appliances. So it's a good check, and the nice thing about Ohio is when we look at this data, we are looking -- we're talking to customers who -- who live in Ohio, who have -- they pay rates. They know what rates they pay, not Vermont rates, which are 50 percent higher, for example.

We are looking at the climatology for the three service territories is similar. You can't look at Vermont and Massachusetts, for example, and say we'll compare climatologically. They don't compare at all. So we're looking at the area, the service territory, the customers that will be subjected to these programs, and so we're getting good information from them, from a statistically valid survey, and we find in most of the cases the three operating company responses for each of these questions, 90 percent of the cases they are statistically significant and 95 percent confidence level. It's very important data.

Q. Okay. And I just want to be clear, when you say "the climatology," are you just referring to the rates customers pay? You said "the climatology."

A. No. Climatological data can be measured a number of ways. I'm referring to heating and cooling degree days. So let me give you a couple of examples. So I think that your witness talks about looking at program experience in Vermont and Massachusetts, for example. So I looked at that and I found that, for example, in Vermont, they have 7,400 heating degree days. They have very cold winters in Vermont. They only have 493 cooling days in Vermont, very mild summers.

In Ohio we have about 5,700 heating degree days, so it's almost 2,000 heating degree days less, and you have about half of the cooling degree days. So that's why using Ohio data is so valuable in looking at this because you've got data from --

from the area in which you are going to be deploying these programs.

Q. All right. And I -- I understand then what you're -- you mean by climatological data.

Now, I just want to ask you, I'm looking at some of these questions, and they have to do with compliances. And I'm somewhat familiar with how climatological data might reflect or might affect a refrigerator or freezer, depending on the location of that appliance, but how about -- would climatological data affect, say, an electric dryer or programmable thermostat or compact fluorescent bulbs?

A. Well, certain -- certain end uses it will not affect. However, you do have different hours of daylight the farther north you go, so the latitude and longitude does make a difference in terms of numbers of hours of daylight and darkness.

You have ground water temperatures are different in Vermont than ground water temperatures in Ohio, so there are differences that can have an impact. But what I'm saying is you can't compare when you look -- look at rates, for example, if you look at the average rate paid by a Vermont customer, residential customer, it's 16 cents a kilowatt-hour. In this area it's around 11 or 12 cents a kilowatt-hour so they are quite a bit different.

So that's why we have opted to do a couple of things. One is we have the surveys. We've conducted these surveys now twice. We get very interesting, consistent results, highly statistically confident results. We then look at surrounding areas, such as Indiana, Michigan, Illinois, Maryland, look at what's being achieved in those states as well.

And base -- by the way, I think AEP did the same thing so we do the same things, and then we take that information, all that information, and we develop our achievable potential estimates at both a high and base case.

Q. Okay. And you mention -- you mentioned a couple of times here that these are statistically valid.

A. I can't hear you. I'm sorry.

Q. You've mentioned a couple of times that these surveys are statistically valid. Can you explain what you mean by statistically valid?

A. Our market research firm has done the calculations on the surveys and looked at the sample sizes that we have been able to achieve, and we achieved those sample sizes in a very short period of time because of the way we deploy the sample, so it's not where we have stragglers that come in a month later. We basically send a survey out, let's say, on the first day of the month, and we have answers back by the 20th day of the month so we get fresh answers. We get detailed answers. We get largely fully completed surveys or maybe one or two questions left out.

So the sample sizes we have are -- are very significant, and the results we have, we can verify those results and order those results one company against the other. So we feel like we have a very robust tool here for evaluating customers' appliance stocks, their actions in the past, which is another thing. We look at past activities, and we look at what they're talking doing in the future.

Q. All right. And I just want to make sure I understood you correctly, the participation rates, let's say, for the base case are those -- well, let me just ask you. For the Market Potential Study I know you have a table, I believe, that shows the base case. How are these individual plans to make a change answers used to calculate the achievable potential?

A. The percentages that are developed or that are provided to us by the market research group we use, they -- they form the basis of looking at a subset of economic potential that becomes achievable potential. Economic potential, as you know, is what's the overnight turnover of all economically viable measures. The achievable potential is a subset of that, and the subset of that for each of the elements is estimated based upon survey results for those -- for those particular responses.

Q. Okay. So the plan to make a change, you're calling that the economic potential; is that correct?

A. No.

Q. I'm sorry. Please explain again. I guess I didn't understand your explanation.

A. Plan to make a change is for the base case.

Q. All right.

A. For the achievable potential.

Q. Okay.

A. Plan to make a change and consider change is -- that's what we use when we look at the high case, which basically the definition of our high case is we look at -- we look at higher marketing, at higher incentives so that we are putting the programs out there in a more aggressive fashion. That's the high case. So we can go around, track those folks as saying, "We'll consider a change." Some people say, "We plan to make a change." They are the base case. People that potentially plan to make a change, and then the people that would consider a change, they are the ones that we have to bring into the high case with more aggressive marketing and higher incentives, so that's -- that's the differential between our two cases in the achievable potential.

Q. Okay. So if I were to look at the companies' projected participation for a refrigerator replacement program, would it be the plan to change the average from your survey here divided by 3 because the plan is three years?

A. We're basically taking the 95 percent plus the 25.1 percent, and we then look at that over the life of our analysis, which is 2026. From there what we do is we distribute -- we distribute the yearly amount of refrigerators that we will be able to capture, efficient refrigerators. We distribute them based upon what we need to meet, need for targets, and what the life cycle of these units are.

We take all of that into account so that each unit -- each measure has a different life cycle, has a different intensity earlier versus straight line versus later.

For example, we'll go after CFLs in a very concentrated fashion over the first five years from '13 to '18, for obvious reasons, both commercial lighting and CFLs. Motors are taking longer from our experience. They are taking longer to be accepted by customers so that is a more later-stage program, and some programs will just be replaced as we go through the life cycle, almost a straight line basis.

So we basically -- we basically customize each deployment based upon what we know about that appliance, how people use them, how they turn over, and things of that nature. It's not one size fits all for each measure.

Q. Okay. Okay. Let's see. So before I leave this -- and tell me if this just isn't as simple as I'm making it, that's fine. But the -- you take plan to change and consider change, and you add them together, and then you're going to divide them over the -- the future years which is, I guess, from 2013 to 2026; is that correct?

A. No. I didn't say that.

Q. Okay. All right, I'm sorry.

A. I said for each measure for each

appliance, it's a different deployment. Some are front loaded because we need to do front-load lighting, for example, because of codes and standards. Some may be a straight line because of the appliance substitution cycle that these units go through, and some are later adopters, like motors, we're finding our program is very -- not as good a response with motor programs as we had hoped. So it's not quite as simple as that.

Q. Okay. I guess that's what I was looking for, though, is, I mean, just if you want to take the specific case of the refrigerators, how do you get to a survey -- from survey result to projection? Just for the refrigerator program.

A. At the end of the day, what happens is that the total that we would assume would be the 2026, for example, residential customer base that's forecasted multiplied by the summation of, you know, the participation, the plan change, and considered change percentages. That's a rough calculation. There are other things that go into it. There are other evaluations that go into it, but that is the starting point for it.

Q. Okay. And let me ask you this. Will customers who have already made a change not be in the market for a refrigerator over the study period or, I guess I should say, is that how you -- is that factored into the Market Potential Study?

A. Customer --

Q. So, in other words, what I am asking you -- go ahead.

A. Wait a minute. I can't hear you, and we're -- I think I understand your question.

Q. Okay.

A. Let's try it again. Can we get them read back?

Q. Sure.

A. And let's start over again.

(Record read.)

A. If you're a customer that has replaced his refrigerator, his or her refrigerator five years ago, you're absolutely going to replace it again over the study period.

Q. And is that factored into your --

A. Yes.

Q. Your target potential study?

A. Yes.

Q. And how do you factor that in?

A. Because we have customer accounts we know are at compliance life cycles, and that gets factored in as well into our models.

Q. Okay. And do you use 12 years because it's the average life of a refrigerator?

A. We have life expectancies for all appliances and end uses that are -- that are in our portfolio, and they vary by the way.

Q. According --

A. They vary in their lives, and we don't -- these numbers are published by various sources, like EIA, for example, will provide that information in terms of compliance lifetimes.

Q. Okay. And just to be clear, are the data from the customer surveys the main data input used to determine the assumed participation rates?

A. There are three bodies of information that we look at. I would say the primary driver is the survey information, and the survey information, as I mentioned before, is self checking. The customer responses are so verifiable based upon the percentages that they use across -- across the operating companies. That's No. 1.

No. 2, we look at recent program experience with the FirstEnergy energy efficiency team. So when we started our work, for example, in February of 2012, we spoke -- we've known these folks for a number of years now. We have been working together quite closely. We speak all the time. We have calls all the time about it, so as we move along in our analysis, they are moving along looking at their programs. So we're getting M&V results that they provide us with. So the M&V results also would be factored in to see what's been going on in these programs.

Are they quick starters? Are they not quick starters? What's going on? It tells us how we spread this over the study period.

The third thing that we do is we look at other neighboring states and see what the experience has been in those states. And, you know, for example, Illinois, Maryland, Michigan, and Pennsylvania, we look at them. We look at what they are achieving on an annual basis, what's their targets, and what's their achievements, and so we have that information, and that information is provided. I think I saw that in the ACEEE report that Mr. Swisher discusses in his testimony as being a very valuable resource. And also I've seen that information in the AEP study as well, so we rely upon that as well. It's a good check on where we are going with this.

Q. Okay.
A. With these estimates.
Q. And so that -- that third element, there are bodies of info, as you call them. It's other neighboring states, and it sounds like you have also then -- I think you said earlier you looked at what AEP has accomplished?
A. Yes. Certainly we do, yes.
Q. And you mentioned the second body of info -- or the second of the three bodies of information, you cite the recent program experience so that is what the three FirstEnergy companies have done to date?
A. Yes, that's true.
Q. Okay.
A. Excuse me, Mr. Allwein. We also look at PA. We want to see what's going on in PA. I do the testimony in Pennsylvania as well. We look at what's going on in PA. We found Ohioans and Pennsylvanians certainly, you know, different from different states, but I find these folks in both states are very attentive to providing good information, and we have a significant -- significant body of information from both states that we rely upon.
We look for anomalies basically as

something different here that we're not expecting. So we do the due diligence to make sure that we've -- you know, we've covered the bases on that.

Q. Okay. And do -- I think you kind of implied this in your answer just now, but do the different states and other utility programs you look at and your own recent experience, are they factored differently or weighted differently, depending on the nature of the program or the amount of time the program has been in existence?

A. Yes, they would be -- that would be taken into account differently based upon such things as the success or lack of success of a program, the amount of time the program has been in place, for example. We also want to make sure we're looking at customer bases that have the same price motivations --

Q. Okay.

A. -- and climatological motivations and climatological response requirements as Ohio customers.

Q. Okay. But you did indicate earlier that the climatological data is -- is similar in the states you were mentioning. It's more similar to FirstEnergy's territory than, say, Massachusetts or

Vermont, I believe were your limits?

A. Yes, it is.

Q. And regarding the second body of information, the recent experience, program experience, does that -- is that afforded less weight because I think your programs are only approved -- or the company's programs were approved in March of 2011; is that correct?

A. Yes. But the M&V results from those programs and the ones in Pennsylvania inform us in terms of what programs are really getting tracks. That's very important. What programs are customers interested in? What programs are they not interested in? What programs do we need to do more work in going forward? Where are the next big programs that we want to measure that we want to promote, for example?

And those are the kinds of things we look at. So the Market Potential Study moves along -- we provide information. You know, we collect information from all sources. We develop our estimates, but we provide feedback as we go through the process, and we get feedback from the FirstEnergy implementation teams and their evaluation contractors, by the way.

Q. So let me ask this one additional way. How sensitive would achievable potential be to changes in your customer survey data?

A. I don't even know how to answer that question. What kind of changes are you talking about?

Q. Let's say that you've done this twice now, correct, once for the original plan and then once for this proposed plan? Correct?

A. Right.

Q. Okay. And so if, let's say -- this is a hypothetical but going to the future, if you're going to perform this again in 2015, taking into account that you've -- you described the surveys as a primary driver, would significant results in the survey, let's say they were all increased by 3 or 4 percentage points, just hypothetically, would that affect your achievement potential?

A. Given your hypothetical?

Q. Yeah.

A. Yes, it would. It would increase our achievable potential.

Q. Okay.

A. See, the one thing that when you go for economic, economics is more of a calculation about we know what the TRM tells us. We know what the costs are. But when you go from there, even as your witness says, you've got to make assumptions about penetration of these programs. And I think that certainly if we see a change in customers planning to or considering changes, it's going to change our achievable potential going forward.

Remember, though, that at some point, you know, if you've -- if you are familiar with market substitution curves, I know Mr. Swisher is, basically what happens is it's an S-shaped curve. So you have an acceleration of market potential, but, remember, also you already have some preexisting energy efficiency.

If you look at our market characterization study for Ohio, there is a great -- there's a great saturation of energy efficiency appliances already in big box stores in Ohio. So customers are exposed to it so I can't simply say they are starting out from zero. They had good experience. They are knowledgeable about their end uses. They are knowledgeable about ages of their appliances. They are knowledgeable about the cost of electricity. They are knowledgeable about the environment. We see all of that.

But as you move through this, to answer your hypothetical, if you saw an increase in it, it would probably increase your achievable potential at the end of the study period, towards the end of the study period.

Q. Why towards the end of the study period?

A. Well, I guess what I'm thinking about is really the Market Potential Study for the next three years really wouldn't -- it's not going to change anything. We have targets to hit. The company is going to hit those targets. They are going to do their best to hit those targets.

The -- if you increase your -- if a customer increases their consideration of efficient technologies by 3, 4 percent, it would have an impact probably along -- probably along the entire trajectory. So as long as the targets are where they are, the company will meet the targets as required, do their best to meet those targets, but an achievable potential will shift going forward the next time a Market Potential Study is done.

Q. Okay. One moment.

All right. How would your methodology deal with an energy efficiency opportunity, say, attic insulation, for example, a customer already didn't know about?

A. My recollection is we do not have any building showing measures in our Market Potential Study because they don't pass the economic potential. Their TRC and too low for this area.

Q. Okay. All right. And you may have touched on this, but have you demonstrated correlation between the interests and intentions expressed using the methodology of the Market Potential Study and actual realized participation in your energy efficiency programs?

THE WITNESS: Can I get that question reread, please.

(Record read.)

A. I'm having trouble with -- I'm having trouble with this, and I'll tell you why. When we look at the correlations between responses -- between the three operating companies, and we find that if you want to express it that way, we do a Z distribution test at a 95 percent confidence, no statistical difference, which indicates to me, it's highly correlated responses from three operating companies. So that's one element.

The second thing, though, if -- and I -- my counsel will probably get mad at me for this, but there was a DR that you sent us concerning, "Did we do a formal correlation analysis?" And the problem with that question was, the reason I answered the way I did, was how do you do a -- how do you do a one ordered pair correlation analysis?

Q. I can't answer that question if you are waiting for an answer.

A. Well, that's the problem you have with that question. That's why I'm being hesitant. I think -- I think what we do is we correlate our results in a statistical way among operating companies, and we find that accepting maybe less than 10 percent, maybe 50 percent of the answers, the hundreds of answers we get from these customers, from hundreds of customers, less than 5 percent of them don't correlate among the three companies. When we have that situation, we have to make some adjustments, but basically we find they all correlate fairly well.

Q. All right. And is -- is there any possibility of -- you are kind of using the three operating companies to sort -- you are using the two operating companies to verify the results of -- of the one. I mean, it's kind of a circular idea here. I mean, could there be some sort of -- is there something that's -- that could create bias across the three companies' service territories and so you would get the same results?

A. First of all, I don't agree with your characterization that it's circular. They are three independent samples, so I don't see how that could be circular. I think that any time a customer responds to you, yeah, there is some level of response bias because they are interested in -- in providing responses. They provide comprehensive responses, though, don't they?

And if you think about it, we have 2,000, 2,400 responses from customers, and in my opinion, they can't -- they cannot be working together to come up with some -- some biased conclusion. So my view is these are independent analyses that -- that support each other, independent samples, the responses. It's not one question. It's not ten questions. It's hundreds of questions, and we are getting great answers from them. I think it's a very important piece of research or very valuable piece of research, and I don't see any problems with a response bias issue at all.

Q. Okay.

A. And it also makes sense to me -- think about it. It also makes sense to me if you are responding to an energy efficiency questionnaire, if you're responding, you are interested in it. So people that are interested in energy efficiency are more likely to respond than people that are not. So that, to me, even adds more credibility to this analysis.

Q. All right. Are you aware of the concept of free ridership in energy efficiency?

A. I certainly am.

Q. And what is your definition?

A. Free ridership are customers that take advantage of a program, even though they are going to do something anyway.

Q. Okay. And so by using the base case achievable potential on auctions, people are already planning to change, shouldn't we assume that the base case achievable potential you present represents free rider savings?

A. No.

Q. In other words, I am saying folks are telling you they plan to change, and then they are going to take advantage of your rebate. They were planning to change anyway, right, so they are free riders?

A. No, I don't agree with that at all because if you have a customer that -- our idea here is to move the market. I think -- I don't know who asked the question about market transformation yesterday, but the whole idea of these programs is to move the market, to move the supply and the demand.

So what happens is we want to move customers to a higher level of energy efficiency. That's the goal of these programs so that at the end of the day, we don't have to subsidize everybody that does this. We get the market moving. We get more appliances, efficient appliances, and end uses in stores. That's the way these things should work, codes and standards.

That's another way they should work. We should be getting better codes and standards to make these things more of a reality, more than something that needs to -- we need to pay incentives for.

Q. And I know we talked about the other states that you looked at and AEP. And just to be specific, did you look at participation rates associated with programs similar to those proposed by FirstEnergy in these other jurisdictions you've mentioned?

A. We looked at them, and also FirstEnergy looks at them so we get information transfer about that.

Q. Okay.

A. And we also look at the overall achievements that have occurred, given similar what we expect to be price elasticity responses by -- on energy costs.

Q. And on page 5, I believe we have been talking about this, you -- you talk about the definition of achievable potential beginning on line 17 and ending on line 19, and you ended it with your -- you screening potential savings estimates to capture that portion of savings that can be realistically implemented by customers. Do you see that?

A. I do.

Q. Is it unrealistic to expect savings from efficiency programs that exceed the achievable potential as reported in your Market Potential Study?

A. I do not understand your question.

Q. You're talking about the potential savings. You're screening the economic potential to capture that portion of savings that can be realistically implemented by customers. And what I'm asking is, is that the ceiling of what you can expect from efficiency programs, or is it possible they could exceed the achievable potential as you've reported it in the Market Potential Study?

A. I think that there certainly is some bandwidth of estimation error. In a 95 percent confidence sample, for example, could be 2-1/2 percent both ways, okay?

Q. Uh-huh.

A. So the answer to your question is I believe it could be exceeded, and it certainly could -- it could go the other way as well, but, remember, we have a base case and a high case so -- and that would apply to both. There is some estimation, and I don't like to use the word "error" because, you know, statistics uses the word "error."

We do have estimation error no matter what you do. If you just make an estimate based upon a market substitution model or diffusion curves, whatever, they also have issues with error. And, remember, errors sometimes is affected by the statistician's judgments. Here we have more what I would call not statistician's judgments, but rather customer judgments leading us, but we do provide a high base case.

But the answer to your question is, yes, they could be achieved. They could exceed that by a few percentage points based up on our analyses, our analysis frame, and they also may not reach those.

Q. Did you review the applicable portions of the Ohio Administrative Code and the Ohio Revised Code in preparation for this proceeding?

A. Yes; sometime ago I did.

Q. All right. And now, I think this is actually in the Market Potential Study, the Ohio Administrative Code defines achievable efficiency potential as savings that would likely result from the expected adoption by homes and businesses of the most efficient cost effective measures, given effective program design, taking into account remaining barriers to customer adoption of those measures. Are you familiar with that definition?

A. Yes, generally I am. I couldn't say -- I couldn't give you the exact quote, but I'm generally familiar with that.

Q. Okay. Well, my question was related to that if a customer reports a lack of interest or intent to participate in efficiency programs, would that response represent a barrier to customer adoption?

A. Certainly.

Q. Okay. And is the reduction of barriers to customer adoption of efficiency measures, would you characterize it or agree with me that it is a key goal of utility energy efficiency programs?

A. I'm sorry. Will you repeat that.

Q. I will.

A. I kind of lost you on that. Just repeat it. I'm sure --

MR. ALLWEIN: Okay. May I have the question read back.

THE WITNESS: Yeah.

MR. ALLWEIN: Please.

(Record read.)

A. Breaking down resistance or -- resistance of customers to participate through information, education, incentives I think is a goal of energy efficiency programs. I think the -- the key component is to strike the right balance of the amount of costs that should be expended on that, and there might be better ways to do this than simply have utilities spend more of ratepayer money to achieve that end.

Q. All right. Well, I guess along those lines, on page 5, line 22, you mention that -- beginning on line 19 and ending on line 22, "In other words, even if a measure is cost effective for the customer, they may be unwilling to install the measure for various reasons such as personal preference, reluctance to incur higher upfront cost, or overall budgetary constraints."

Do you see that?

A. I do.

Q. Okay. And my question is, what do you mean by higher upfront costs?

A. Well, for example, if you have a central air conditioning system and the -- your compressor fails, and your utility says, you know, you can get a 18 SEER unit, we're going to give you another, whatever the incentive is, and you say to yourself, "Do I want to spend another 2,000 bucks," whatever the number is I'm -- that's a hypothetical. You may not want to spend the extra money to buy the more efficient unit. You might say, "I would rather just get what I have. I'm not using it that much anyway," whatever. That's a higher upfront cost issue.

Q. Okay. And what then is an "overall budgetary constraint"?

A. Budgetary constraints on the part of the customer, the customer may say, I can do a couple of things this year. I have got to replace my water heater. I have got to do this. I have got to do that. Boy, I would love to participate in a heat pump program, for example, high efficiency heat pump program, but I don't have the money to do it so I'm constrained in that regard. So even though the company is offering these good things, I can't participate because I don't have the budget to do it.

Q. And regarding -- going back to the higher upfront cost, well, and, perhaps, possibly the overall budgetary constraints, isn't one way to remove both of these barriers through an adequate incentive?

A. Define "adequate incentive."

Q. Perhaps a rebate that reduces the upfront cost so that it is, I guess, within that customer's budgetary constraints to afford the more efficient model.

A. I think what happens -- I think -- let me try to give -- there's two sides to this answer. Yes, mathematically that may be a way to do it. But there's another issue here which is it's a -- it's almost a redistribution of wealth issue where you start making rebates so high that, you know, customers will just -- yeah, then I think you start getting big free ridership at that point, so I think you've got to be careful about how much incentives that you want to do with certain programs.

CFLs I think are important to put in. I think that at some point, you know, high -- high efficiency lighting has had a big impact, so I think that, you know, getting that out in the market, moving the market, market transformation, that's a good way to start, you know, by subsidizing those. They are not big ticket items, but there is significant savings there. When you start to get to big ticket items, I think you've got to be cautious where you draw the line with some rebates and incentives.

Q. Okay. But isn't it possible, though -- I mean, if a rebate is too low, you might not get as many folks to buy it as you would have otherwise. You talked about a rebate being too high, but it could work the other way, correct?

THE WITNESS: I'm sorry. You'll have to read the question again to me or.

(Record read.)

A. To answer your question, I'll answer the question about a rebate being too low.

Q. Okay.

A. If a rebate is too low, the market will tell you that, I think. And so I would agree with your hypothetical that if a rebate it is too low, less people will participate, all else equal.

Q. And we've been talking about the barriers, and does FirstEnergy intend to implement programs in a way that continually lowers these customer barriers, as far as you know?

A. I hate to do this, but I think you should ask Mr. Miller about that.

Q. That poor guy. In your data, your customer survey data, have you demonstrated that the interests and intentions expressed in the customer surveys are unchanging over time after efficiency programs have been productively and effectively deployed?

A. I don't understand that question at all.

Q. Okay. You have a Market Potential Study in 2009.

A. Uh-huh.

Q. In which I believe you employed surveys; is that correct?

A. Correct.

Q. All right. And then in 2012 you conducted a Market Potential Study, and you used surveys there as well, correct?

A. That's correct.
Q. All right. And so comparing those two surveys, was there any -- anything that demonstrated that the interests and intentions expressed by the customers in those surveys is unchanging over time?
A. Well, I can probably give you a good answer to that question by looking at some of the differences between what our results were. So in 2009, Market Potential Study, we came up with an economic potential of 21 percent. In the 2012 market study, we came with an economic potential of 27 percent, so that's a 6 percent increase in economic potential.
What we found was in the base case we found that there was a slight increase in achievable potential from 12 percent to 13 percent, but in the high case we found that it went down from 19 percent to 16 percent, but this could be driven by the economy in Ohio over the last couple of years.
So I think that those are the results. I think when you look at -- when you look at the technical potential, it's the same basically. This hasn't changed it. It went up by one percentage point.
Q. So between 2009 and 2012, the economic

potential increased by 6 percent.

A. That's right.

Q. But you're saying that the achievable potential -- no, the high case achievable potential decreased by 3 percent.

A. That's right.

Q. All right. And you say that that may just be because of current economic conditions.

A. May be.

Q. Okay. And so --

A. Now, excuse me, Mr. Allwein. The thing that's really important about this is that it's not that we have one sample of 700. We have three utilities, and they all matched each other in terms of what customers told us. They were -- 95 percent of the responses were significant at a 95 percent confidence level.

Q. Okay. Well, my question is I know that in the Market Potential Study you have the tables that compare the base case achievable potential to the high case achievable potential.

A. Right.

Q. And is this economic potential that's increased 6 percent in the three years, is that factored into those tables?

A. Yes.

Q. Okay. And how is it factored into those tables?

A. You start out with economic potential and the math -- the math is built for achievable potential from the bottom up. It's not top-down math, where economic potential is more top-down math. Well, actually, it's a measured math. That's bottom up, too. Yeah, that's bottom up as well, but one is -- one is do you pass the TRC or don't you pass the TRC?

Now, in some cases we actually include programs that might not pass the TRC because they are important programs. They are important. We need them there. They complement other programs, whatever, but the portfolio all passes the TRC.

Q. Okay. Now, is there any specific data from any state or jurisdiction that you are aware of that indicates customer attitudes toward utility program participation is static in the face of growing options for customers?

A. What type of options are you talking about?

Q. Additional opportunities for energy savings, so additional technologies, such as smart strips, things like that.

A. We've had smart strips in our plan in Pennsylvania since '09, and there -- I believe they are in Ohio's plan as well.

Q. Okay.

A. So --

Q. Well, that may have been a bad example.

A. Okay.

Q. I guess I just meant technol --

A. No. I think actually you are right about that. I mean, we were in '09. I think that was not something people included, and we actually put it in that plan because we thought it was a pretty -- pretty compelling technology for folks to be able to use.

Q. And so is there anything that indicates that customers are choosing not to employ these options, or are customers employing these additional opportunities for energy savings as they become available?

A. The answer to that question, it depends on the option.

Q. Okay. Do you have any examples of where they are employing new technology that perhaps they weren't, say, three to five years ago?

A. I would say they are deploying more or employing more CFLs than three to five years ago. We see that in the data. We see more being used. I think as awareness occurs with -- with high efficiency air conditioning, you know, better SEERs, S-E-E-R-S, you'll see more of that because -- and I think it also depends upon the area of the country you're in.

Where I live, you know, we pay 22 cents a kilowatt-hour and, you know, here it's different. It's half -- basically half the cost. So I think it's a cost function. It's a cost of electricity function as well. I think depending on where you look, depending upon the cost of electricity is a big driver. It really changes a customer's notion of payback.

Q. Any other examples you can think of besides CFLs where customers are employing the technology that they -- in greater numbers or employing, as you said, more than they were a few years ago?

A. Well, I think -- I think a host of energy efficient appliances, like refrigerators, freezers, you know, Energy Star appliances. I think they are -- you know, customers are looking more for those kinds of appliances. I see, you know, I see them certainly in, you know, higher-cost areas of the country where people are doing that.

And I looked on the data here from the surveys and, you know, there's some significant turnover in appliances that I see in Ohio as well. People need new appliances, and the life cycles, you know, appliances need to be replaced. So we basically did a market characterization survey, and we talked to -- hold on a minute.

It's the last page of the Market Potential Study, Appendix E, Retail Stores Surveyed, and we saw there a big difference between the '09 and '12 market potential survey work that we did. We had -- we had somebody literally call a number of these big box stores, and it was very interesting. It was a very well-executed survey that this professional did for us, and she worked for Black & Veatch.

And I'll tell you something, the insights were great. She found that -- that salespeople now were far more well versed in energy efficiencies and Energy Star appliances and were willing to make suggestions about those appliances and what the impacts and what the economic -- what the economics will be for those programs if -- they didn't use the "economics" term but they used you'll have significant cost savings.

So I think you're seeing that as well. You are seeing more of a shift to that, and the incentivization that, you know, the FirstEnergy plans have for that is extremely helpful and helpful in -- helpful in advertising that type of program to customers and providing some incentive so that they can -- so they will go out and look for those appliances in the stores.

I think there is a good example you don't have to pay for the full incremental cost of it, but you pay something and get customers to notice it. That's the best cost effective way to do it, I think.

Q. And just assuming that the barriers we've talked about and, perhaps, other barriers to customer adoption of efficiency measures are lower in the future after efficiency programs have been deployed, would you expect customers to report greater interest or intent to participate in efficiency programs?

A. Now or in the future?

Q. In the future.

A. I don't know.

Q. I don't know. Let me ask it another way.

Would increased awareness on a customer's part, is it reasonable to assume that it may create greater interests on that customer's part?

A. I'm sorry to have to ask you this, but increased awareness of what?

Q. Energy efficiency options.

A. Energy efficiency options. I think that -- well, I think yes, and I think that the FirstEnergy programs do that.

Q. Okay. And considering the methodology of the Market Potential Study, would the achievable potential increase as a result of reduced barriers to adoption of energy efficiency measures by customers?

THE WITNESS: Could I just have the question reread, please.

(Record read.)

A. I don't think I can answer that without a lot of -- a lot -- there's a lot of moving parts to that discussion.

Q. Okay. We'll skip that one for now. As you've been -- as you've testified here today, assuming that the survey results accurately reflect customer attitudes today, are you confident these attitudes would be the same after plan efficiency programs have been in place for several years?

A. I don't know.

Q. And I think this is Table 1.7. Let me make sure. My question is -- I'll ask the question when we go to the right table. The Market Potential Study indicates that after 2015, the incremental achievable efficiency potential is about 5 percent per year of the baseline sales forecast. Is this rate of increase based, in large part, on the customer survey data?

A. You'll have to point me to -- I'm looking for it.

MS. KOLICH: That's in the Market Potential Study you are looking for?

MR. ALLWEIN: Yes, ma'am.

MS. KOLICH: Okay.

Q. It is Table 1.7, and that is on page 19.

A. Now, what was your question again?

Q. My question was, if you look at the percent achievable of original forecast, column over on the right, after 2015, the -- the numbers basically increase incrementally about .5 percent a year, so 7.2 to 7.6; 7.6 to 8.1; 8.1 to 8.6. Do you see that?

A. I do.

Q. Okay. And is this rate of increase as presented, is that based, in large part, on your customer survey data?

A. In significant part.

Q. Okay.

THE WITNESS: Excuse me, your Honor, can I -- your Honors, can I get a break?

EXAMINER CHILES: Let's take a ten-minute break. We'll come back at 10 until 12:00.

(Recess taken.)

EXAMINER CHILES: All right. Let's go back on the record.

Mr. Allwein, you may proceed.

MR. ALLWEIN: Okay. Thank you, your Honors.

Q. (By Mr. Allwein) Mr. Fitzpatrick, how long are your survey results valid, what period of time?

A. We've asked customers to look at the next few years, couple of years, what would they be interested in participating in. So it gives us an idea of what their level of interest is by appliance end use and efficient mergence versus of those appliances and their uses. So I would say that complete snapshot, what it boils down to is a cross-sectional analysis. And that's why I had problems with your -- your data request about correlation studies. It's a cross-analysis looking at what the customers of one period of time have seen, looking at what their prospectives are on the future. I think it's valid to look at that, given their current interest, looking at it over our study period. But we really do look at the first couple of years. But I think that's extrapolative to go out for the remainder of the study period. It does set the boundaries for where we want to go.

As I said to you, future market potential studies we could see greater or lesser potentiality to participate, but right now -- so if we do want one a couple of years from now, you know, presumably we'll look at that again and see how these things may have changed up or down.

Q. Okay. And I guess what I was asking was, and this is a hypothetical, if this was a ten-year plan as opposed to a three-year plan, would there be a time where you would do an additional survey to update those results, and if so, when would that be?

A. I think I would say at the -- assuming that -- assuming that the plan executes as we generally expect it to execute, then I think it would be sufficient to do one if -- before the next cycle, before the next three-year plan cycle. If there is a market change in the way the plan executes, then you might want to look a little sooner than that but.

Q. Okay. So -- so going back, if it was a ten-year plan, would you just do the one survey prior to implementing a ten-year program, or would you need to update those surveys at some point?

A. Well, I have been doing a lot of utility planning for years, forecasting, and we update those. You have to update them because the world changes, condition changes, use of -- energy use, appliance end uses come on the market. You need to refresh those. You can't do a ten-year study and assume it's going to remain fresh for ten years.

Q. So how often -- you said you need to update it occasionally. How often?

A. Well, I just gave you the answer to that question. I said -- I said to you, given that things move as we expect them to move with the plan, I think another three years would be a good look.

Q. Okay. Thank you for that clarification.

A. Sure.

Q. Now, you mentioned in the body of information that you review, you talk about program -- program participation rates in other jurisdictions and your customer surveys; is that correct? That was two of the three items.

A. And also the -- and also the results that are being achieved in neighboring states.

Q. Right. So what is a -- a better measure of achievable potential? Would it be program participation rates in other states, or would it be customer surveys?

A. It would be my customer surveys, which, as I said before, verify each other because of the way the samples are designed, and then on top of that looking at surrounding states to see what they've achieved given the same level of climatological data as well as cost data, cost -- cost of electricity data.

Let me be a little more clear about that. The reason I wouldn't look at -- I wouldn't look at a Vermont or Massachusetts, for a couple of reasons, one is because climatologically they are entirely different. The saturation of end uses are much different. They have very low saturations of air conditioning, for example. They have high saturations of space heating.

A lot of people heat supplementally with wood in Vermont, as an example. That doesn't show up in the surveys like it should because it does affect -- it does skew the amount of energy people use for electric space heating, for example, or gas or oil.

That's a bad choice of state, plus their rates are 16 cents a kilowatt-hour there for the average residential customer, where we're about 11 or 12 here, so it's been a 30 to 40 percent increase in electricity costs there. Given the price of elasticity of demand, customers are going to be more interested in saving energy in a Vermont environment than a lower-cost area like Ohio, all else equal.

Q. All right. Now, are you aware that some utilities achieve higher rates of incremental savings in some cases perhaps exceeding 1 percent a year?

A. I am.

Q. And some utilities achieve rates of over 2 percent a year; is that correct?

A. Yes, I believe that is true. And Vermont, I think, is one of the things you are talking about.

Q. Okay. And you've highlighted some of those differences in your testimony already today, correct?

A. Yes.

Q. And so I want to ask you, do you think that going -- referring to some of the differences that you've mentioned today, does that explain or substantiate the approximately .5 percent incremental increase of achievable potential in Table 1.7 versus the 1 or 2 percent that other utilities may achieve?

A. Well, first of all, I discount Vermont and Massachusetts completely because of the differences in cost and the differences in climate. If I look at -- if I look at Illinois and I look at Michigan, I look at Pennsylvania, for example, we're looking at something in the order of achieving -- in Illinois there is a .8 percent. Michigan is .4 percent. PA is .4 percent, and this is from ACEEE study Mr. Swisher cites in his testimony.

The cost per kilowatt-hour, you know, in Michigan and PA, Illinois is in the 12 cent range so it's a little higher than here or, you know, close. But the price elasticity of demand for electricity, if you look at that and then you look at participation and impacts of these programs, the price elasticity is going to dictate people trying to save money.

And if their programs, like in Vermont where you have significant subsidies of those programs, people are going to take advantage of those programs. It does not apply here. It's different. Price elasticity is different. Even if the price elasticity is the same, the calculation for 30 to 40 percent lower electric rates is different. Participation rates will be lower here, all else equal.

Q. Okay. All right. I want to talk about there's more narrative on page 11 of your Market Potential Study.

A. Page 11 of the study itself?

Q. Yes, sir.

A. Yeah, okay. Okay. I'm there.

Q. Hang on one second. I'm not there myself. Okay. On page 11, the Market Potential Study states that either the base case or the high case produce cost effective portfolios based on a review of the TRC test; is that correct?

A. I'm sorry, I don't see where you are. Could you tell me what paragraph you're in?

Q. Yes. I think it is the second paragraph down, and it is line 1, 2, 3, 4, 5, 6. It's kind of the second half of line 6 where it begins, "Both scenarios produce cost effective portfolios based on a review of the Total Resource Cost Tests."

Do you see that?

A. I do.

Q. Okay. And then you state that, "The High Case scenario comes closer to achieving the benchmarks established in 4928.66, Revised Code, as would be expected, but at a higher cost to implement the programs," correct?

A. Yes.

Q. What do you mean by "comes closer to achieving the benchmarks"?

A. The -- in 2026 the base case achievable potential could amount to about 13 percent while the high case amounts to around 16 percent --

Q. So --

A. -- by 2026.

Q. Okay. So you were referring to the -- the last year with that statement?

A. I was.

Q. Okay.

A. As opposed to the 22 percent that's quoted somewhere in that first page, I believe.

Q. The 22 percent --

A. Yes. There it is on the bottom. It says, "While these estimates fall short of the 22% goal established by the Commission for 2025," and then there are statements there about, you know, what -- you know, the caveats.

Q. Okay. And going back, you said it comes closer but at a higher cost to implement the programs. What do you mean by -- well, I'm sorry, I know what you mean by higher cost. Do you have an estimate of the higher costs that you refer to here?

A. I don't believe I have that estimate, but the higher costs, just so we're clear about what they are --

Q. Yes.

A. -- this would be in terms of advertising programs and the level of incentives that would be required.

Q. Anything else that you can think of that would be included in those higher costs?

A. Well, you know, if you think about advertising, for example, yeah, there is a number of components to that and making people aware of the importance of many subsets of the advertising components. And then there are also, you know, the incentives you would see over time, I think you'll start to see more incentives being offered for different types of end uses, for example, that are in the Market Potential Study. So, you know, those are the two general categories, but there are a lot of components under those categories.

Q. Okay. And if you go to Table 1.8, which is on page 20.

A. Okay.

Q. I just have a couple of questions about that. Now, Table 1.8 is the cumulative high case goals achievable through 2020 there in that right column; is that correct?

A. I'm sorry, I didn't hear you.

Q. I'll say it again, I'm sorry. I'm trying to make the computer work. Table 1.8, the far right column is Percent Achievable of Original FirstEnergy Forecast; is that correct?

A. Yes. And that's for Toledo Edison only.

Q. Okay. All right. Let's go to Table 1.9 then. I believe that is all three of the companies; is that correct?

A. 1.9?

Q. Yes.

A. Oh, that's peak demand reduction. That's also Toledo Edison.

Q. All right. I'm looking for a table where you put the three companies together and predict their percent of achievable -- of original

FirstEnergy forecast for energy efficiency. Can you direct me to where on that table it is?
A. I don't think there is one. I think you have got to put them together. That's what I did.
Q. I believe it's Table 1.2.
A. Okay.
MS. KOLICH: Is that the table on page 14?
MR. ALLWEIN: Yes, it is.
A. That's Ohio Edison high case.
Q. Okay. Well, let's just look at that table for now.
A. Okay.
Q. I'm sorry. Is there a table in here that shows all three of the companies together?
A. What we did is develop a way to average, so that's how I did the math myself as I was preparing.
Q. Okay. So -- so the column on the right in Table 1.2 in the Market Potential Study is Ohio Edison's High Case Percent Achievable of Original FirstEnergy Forecast, correct?
A. That's correct.
Q. Okay. And is it correct to say that the achievable potential meets or exceeds the cumulative

goals through the year 2020?
A. That is correct.
Q. All right. And the first year that the cumulative goals are not met or exceeded would be 2021, correct?
A. That's correct.
Q. All right. And that is -- now, that is eight years from now, right? 2021 is eight years from 2012 or close to the end of 2012. I'm not good at math. Is that a good approximation?
A. I am not going to do the math so let's just accept what you say.
Q. Okay. Thank you for your indulgence. Now, basically from 2020 -- from 2021 through 2026, your table is illustrating a shortfall of achievable potential for energy efficiency for Ohio Edison, even under the high case scenario, correct?
A. It is showing the results of the Ohio Edison achievable potential estimations, and then it's comparing to the cumulative goals that we have estimated.
Q. All right. And those -- and for 2021 through 2026, the achievable potential is less than the cumulative goals?
A. Yes.

Q. All right. And I just want to ask you, in your opinion, having been in energy efficiency and this kind of work for, I believe, more than 35 years, is it your opinion that future energy efficiency advancements and technology improvements may occur that will possibly make up for that delta between the cumulative goals and the percentage achievable in those future years?

A. I think they could occur, yes, but I also think that the one thing that needs to be evaluated from a -- from a state commission policy perspective is how much of these goals are being met by the market substitution that will take place as a result of FirstEnergy's, and other utilities in Ohio, their energy efficiency programs because these programs that are going in place, you know, for the next few years, they are going to move that market.

So I think that that needs to be monitored, as well now in terms of is the market now going to transform where the incentives may not be required or they may be lower. Whatever it is, incentives, generally speaking, should really only be utilized to bring in new technology. I mean, I think incentives are good. I think if they pass the TRC, I think these programs, they make sense.

But you have got to find the point where you start to reduce incentives because the market transformation component could take over, and it's been shown to take over, and so the programs need to be out there now to call attention to these programs, these technologies, to provide some incentive to get people to participate.

Once that happens, you have two things to go on. You have -- you have a demand and a supply component. In Ohio you are going to get more energy efficient appliances and end uses in the retailers' stores because of these programs, and then the customer will be more aware. They will go out and look for these programs.

So the answer is I think there could be other technologies that may come along, that could come along but may not be required to incentivize those technologies. That needs to be studied, I think, going forward.

Q. Are you aware that 4928.66 allows for efficiency savings from combined heat and power to be included as part of a utility company's savings, energy savings?

A. I don't remember that.

Q. Okay. It's actually fairly recent.

A. Okay.

MR. ALLWEIN: Your Honors, may I approach?

EXAMINER CHILES: You may.

MS. KOLICH: Can I see a copy of what you are handing him?

MR. ALLWEIN: Sure. I'm sorry.

MS. KOLICH: You only have one?

MR. ALLWEIN: Yes.

MS. KOLICH: It's just the statute?

MR. ALLWEIN: Yes.

Q. (By Mr. Allwein) This is a copy of the most recent version of 4928.66 just so you have something to refer to.

A. Okay.

Q. What I was referring to was about one, two, three, four lines down from the top of the page, and it's the second half of that line. It says, "An energy efficiency program may include a combined heat and power system placed into service or retrofitted after the effective date of this amendment."

Do you see that?

A. You know, I'm sorry, where are you again? I was just looking at the second page. Where are you?

Q. I'm sorry, it's the first page, 4928.66 (A)(1)(a). It's the fourth line down, and it starts about the second half of that line. Do you see that?

"An energy efficiency program may include a combined heat and power system placed into service or retrofitted on or after the effective date of the amendment of this section."

A. I see that.

Q. Okay. And does your Market Potential Study include any potential for CHP during the planned period of 2013 to 2015?

A. No.

Q. Okay. And are you familiar with combined heat and power?

A. I certainly am.

Q. Okay. Do you think that that is technology that could possibly help to diminish this difference in future years between the cumulative goals as presented here on Table 1.2 percent versus the percentage -- Percent Achievable of Original FirstEnergy Forecast goals in those years of 2021 to 2026?

A. I've not done a study on combined heat and power for Ohio.

Q. Okay. Well, just from your experience developing two market potential studies in the FirstEnergy service territory, is it your opinion that there is potential in that area for the utilization of combined heat and power?

A. I think I would more draw upon my experience in looking at combined heat and power. Planning around combined heat and power, looking at the life cycle economics of combined heat and power, looking at the rate and regulatory issues of combined heat and power both in the Northeast, the Southwest, California, Texas.

And, again, I've not done the study on it, and it depends on where you are. It depends on the quality of the installations, what they do, and how they affect not only savings, but how do they affect the BTU, BTU in versus BTU out, distribution, and reliability and those kinds of issues, so I don't feel that I could answer your question.

Q. Okay. And I want to ask you regarding the customer surveys, did Black & Veatch develop that methodology?

A. We developed that methodology. It might be used by other folks. I recall we had some other people at Black & Veatch. A couple of years ago we came up with this survey, but I think we also looked at other utilities that had done something like this. I think we expanded the survey significantly, but I think that we've done a lot of work in FirstEnergy, you know, with these types of surveys, not just for energy efficiency both in PA and Ohio, but also smart meters, smart grid with great success. So we did design it, but I think that there are other utilities that have done surveys like this in the past. This is really a combination of a couple of surveys that we've used in the past.

Q. Okay. And was this particular -- well, let me ask you this, did you have other options in terms of developing the Market Potential Study?

A. I did. I think I told you what they were. We looked at other options in making our assessment on what we could expect in terms of participation.

Q. You don't need to repeat those, but thank you for reminding me. So did you -- did FirstEnergy request that you use this particular methodology for their Market Potential Study?

A. No. We actually presented the idea to them and to the energy efficiency team. They liked the idea. They thought it provided a wealth of data for us. We have other data that have been developed, for example, appliance saturation surveys that we've looked at. There's a robust load research capability within FirstEnergy. All of this data dovetails in ultimately to more and more sophisticated analyses that can be performed going forward.

So it was -- you know, they felt it was a good idea and good investment of time and resources, and I think it will continue to pay off going forward, but there are other things you look at as well. You don't just make decisions about this in a vacuum.

Q. Is this methodology compared to the other methodologies that you mentioned previously, is it generally less expensive to do it this way than other methodologies?

A. Are you talking about diffusion curves? That's a less expensive way to go than surveys.

Q. Okay.

A. This I think is -- it's more expensive. It requires more staging. It requires more time. We actually did use -- we did use diffusion curves back in '09. We developed a plan. We found, I think it was in Pennsylvania, I was thinking, and, you know those -- those analyses are subject to a great amount of estimation and bias.

It depends on what you want to -- what you want to produce. You can design a model to basically come up with some variation in the analysis. And what is going on here, if you look at the curves, the way they are developed, those curves, those curves are sochastic.

Basically they are a projection out in time, so you have got to have some baseline information, but then you basically say I have gone a life of an appliance. I have an S-shape curve, and I basically look at a couple of pathways for that, and you can estimate a pathway, it could be based on other data or whatever form other service territories. The beauty of this analysis is the data is from this service territory and is statistically significant.

Q. And has Black & Veatch used this methodology to produce market studies for other utilities other than FirstEnergy utilities?

A. I think we -- that's what we -- we don't do market potential studies generally for the utilities. We do that work here. I've done them in the past, but I find this methodology to be better than, you know, old projections, old curvilinear projection methodologies.

Q. Okay. And so is this, your work for FirstEnergy in Ohio and Pennsylvania, is this the first time that you've employed this methodology?
A. The survey methodology?
Q. Yeah, for the Market Potential Study.
A. Oh, for Market Potential Study. It's the first time we've employed this survey, yes. It's a very comprehensive survey, but the components of these surveys we've applied many times before.
Q. Okay. And how many times have you used this survey methodology to go from economic potential to achievable potential?
A. Oh, just in the FirstEnergy instance.
Q. Okay. Okay. And I just wondered, have you ever published this methodology in any kind of a peer review journal?
A. No.
MR. ALLWEIN: All right. And one moment, your Honors.
Q. All right. Referring to your testimony page 13, line 18, you state, "There is a significant percentage of customers who will not participate for various reasons." Do you see that?
A. I do.
Q. And have there -- have you correlated a

customer's past statement that they are neither likely nor unlikely to participate in a program with actual nonparticipation?

A. Please describe the type of correlation you're talking about.

Q. In other words, if -- is there anything that correlates if, say, 80 percent of customers say they are unlikely to participate in any kind of follow-up that demonstrates indeed 80 percent of customers didn't participate?

A. We've looked at the results. In developing our 2012 Market Potential Study, we had, obviously, a 2009 Market Potential Study with surveys. We looked at the program participation rates. You know, we opened the program up -- you know, programs up to everybody, and so we looked at those rates, participation rates, and those participation rates in the aggregate are, you know, are significant, generally match the participation rates or the participation rates that we've estimated from our surveys.

If I could point out one more thing. I think the other thing that you have got to remember is from '09 to '12, we've had, you know, economic issues in the country and in Ohio specifically. So this an aberration. We have to look at this going forward, but the bottom line is we have those things, so if you look at those kinds of issues as well, you are going to have ups and downs around that, and they will vary.

But my answer, or end use, but generally speaking, I feel like they were good parameters in terms of what we should be looking at, where we should be focusing, what programs we should focus on, what measures.

EXAMINER PRICE: You think there should be some demand of pent-up energy efficiency because of the economy?

THE WITNESS: There could be. I mean, I think that these survey results that we see in '12, you know, we might see if we do it in a few years, like I said, if we see program participation pick up in '13, and '14, then it might be valuable to revisit that and revisit those surveys to see what customers are thinking at that point in time because economic potential is sort of -- it's math, basically.

But the achievable potential is more -- there is more to it than that. We think statistically we are significant. It's measuring -- it's measuring the sample. It's measuring the population at a high confidence level today, you know, in the last six months.

Q. All right. Let's go to page 14, line 14. Make that line 17, please. You state that "Without absolute certainty that the reductions will take place, potential suppliers must account for this contingency, which creates risk, thus increasing the price of electricity over what it might otherwise be."

And you're responding to your question, "Wouldn't the overall price of electricity be less if customers participated in energy efficiency programs?"

Do you see that?

A. Yes, I do.

Q. Okay. Is there new analysis that you know of or that you've performed an analysis of the price premium that suppliers must charge to account for load uncertainty?

A. I have not done any specific analysis for that.

Q. And then referring to that risk that you discuss on line 19 of the same page, page 14 of your testimony, because the cost-effectiveness test you mentioned in some of your previous questions are based on avoided costs, which themselves are based on forward market prices that already include market expectations about energy efficiency, is that risk that you speak of on page 14, line 19, already accounted for in the cost-effectiveness tests?

A. Which cost -- I'm sorry -- which cost-effectiveness tests are you talking about? Are you talking about the work we do for TRC?

Q. Yes, I believe so. We are talking about the TRC.

A. Yeah, there is avoided costs we look at there.

Q. Pardon me?

A. There are avoided costs that we look at there. They are factored in.

Q. But my question was, the avoided costs which themselves are based on the forward market prices, don't they already include market expectations about energy efficiency?

A. Well, let me just look at this and get the right context, okay?

Q. That's fine. Please take your time.

A. Thank you. Okay. What was your question now?

Q. My question --

MR. ALLWEIN: May I have the question read back, please.

(Record read.)

A. I -- I'm not sure. I don't know.

Q. Okay. If they did, wouldn't the risks that you are talking about on line 19, page 14, already be accounted for in the TRC tests?

A. I wouldn't know. I don't know.

Q. Okay. And just one last question, maybe two. You've mentioned a couple of times testifying today that you think -- and correct me if my characterization is wrong -- that the proposed plan gives the companies the best chance to meet their energy efficiency benchmarks during the plan period. Is that a fair characterization of what you've said today? You've used the term "best chance" a couple of times.

A. I think -- I have not studied the plan in detail. That was not in my testimony in this particular hearing. I believe that the analysis and processes they use to develop a plan is extremely good, their best practice. So I think it's a good plan, generally speaking. I've not studied it in great detail, but I think the Market Potential Study upon which it's based is a great document, a great resource for them forming up their plans for the next three years.

Q. Okay. So you have no opinion on whether the plan will or will not meet the benchmarks as proposed?

A. Oh, I think there is a good chance that it will, yes. I think especially given the fact that we are hopefully coming out of recession. I think the plan has a great chance to succeed and meet the benchmark marks that it needs to meet.

MR. ALLWEIN: I have no further questions, your Honor.

EXAMINER CHILES: Thank you. Could we go off the record for a moment.

(Discussion off the record.)

EXAMINER CHILES: Mr. Dougherty.

MR. DOUGHERTY: No questions.

EXAMINER CHILES: Mr. Williams.

MR. WILLIAMS: No questions.

EXAMINER CHILES: Mr. Parram.

MR. PARRAM: Yes, thank you.

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CROSS-EXAMINATION

By Mr. Parram:

Q. Does this work? Can you hear me now?

Okay. Good.

A. Yes.

Q. Good afternoon, Mr. Fitzpatrick. I am Devin Parram, counsel for staff. I have just a couple of questions for you.

You had a discussion with Mr. Allwein regarding free riders and free rider issues. Could you define free riders for me, your definition of what free riders are?

A. A free rider is a customer that is going to take advantage of or install a measure or purchase an appliance and they -- basically without any incentive, and they receive the incentive because it's available to them.

Q. Okay. Would it be true that the percentage of free riders would increase if a rebate or incentive is set too low?

THE WITNESS: I'm sorry. I want to make sure I heard the question right. Can we get this reread? Sorry.

(Record read.)

A. I don't know. I don't -- I don't think so.

Q. Well, in your definition of free riders, I guess you said that the problem would be that people would -- people who would have participated in a program without a rebate or -- I guess in the way you define free riders, would the problem be that it is not incentivizing individuals to participate in the program because of the level of the rebate or incentive?

A. I hate to do this to you, but I think you ought to ask Mr. Miller about that. I think he has done more of that than I have recently, so.

Q. So Mr. Miller would be a better person to ask about --

A. I believe he would know about it as it affects the plan, yes.

Q. I had just one other question for you.

A. Sure.

Q. On page 14 of your testimony --

A. Yes.

Q. -- line 16 --

A. Yes.

Q. -- it says -- starts with, "Many of the programs allow customers to opt out of or override programs."

A. Uh-huh.

Q. What programs are you referring to specifically?

A. Well, I guess the statement there is that's a broad statement. I am saying basically any of the programs you can opt not to participate in the program. You offer the program. We can make best estimates about what the program participation would be, but customers may not want to do it. In the case of some programs, like direct load control programs, they can override programs. They can override that program so you are not going to get the peak demand reductions that you might expect at the time of the system peak, around the critical peak pricing times.

Q. Are you referring to any residential programs in your question?

A. Yes, yes; residential and commercial.

Q. And do you know what specific residential programs you would be referring to?

A. I think the residential direct load control you can overidle. There is some programs you can -- you can override those programs. As far as participation in any program, customers have a chance to do it or to opt out of it.

MR. PARRAM: That's all I have.

EXAMINER CHILES: Thank you.

Can we go off the record quickly.

(Discussion off the record.)

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

Ms. Kolich.

MS. KOLICH: Thank you, your Honor.

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REDIRECT EXAMINATION

By Ms. Kolich:

Q. Staff counsel was talking to you about rebates and free ridership. In general, do rebates impact free ridership?

A. Do rebates? I don't think so, no.

Q. Why not?

A. Well, I think customers make a decision based upon the rebate that's offered to them, and there are customers that may be buying into something. The level we operate, I don't think it would matter if you are buying into something. I didn't expect to get rebate whether it's 2 cents or 20 bucks.

Q. Okay. And then Mr. Allwein asked you some questions about Table 1.2 on page 14 of the Market Potential Study. Do you recall that?

A. I vaguely recall it.

Q. Why don't you pull up the table.

A. Sure. Will do. Okay.

Q. There was a discussion about when the market potential is less than the cumulative goals. Do you recall that discussion?

A. Yeah, I do.

Q. Now, that occurs there around 20 -- 2020 or 2021; is that right?

A. 2021.

Q. Okay. That fact, whether right or wrong, does that impact the market potential results for purposes of the plan period at issue in this case?

A. No.

Q. And the results that you show on Table 1.2, are there other independent studies that draw the same conclusions as shown on these studies or on this table?

A. Yes. I mean, if you look at, for example, if we -- I think I mentioned this before, Michigan and Pennsylvania, they are looking at something like achieving .4 percent a year in energy savings reduction, both of them, Michigan and Pennsylvania. Illinois I think is .8 percent. Bear with me. I think I have some more information.

Q. You may have misunderstood my question Mr. Fitzpatrick.

A. Sorry.

Q. This table on 1.4 shows that there will not be enough achievable potential in the out years to hit the statutory targets; is that right?
A. Yes.
Q. Are there any other independent studies that drew that same conclusion?
A. That drew the same conclusion that --
Q. There will not be enough for FirstEnergy --
A. No.
Q. In general, there will not be enough achievable potential.
A. Yes. Given the information I'm seeing right now, there are.
Q. Do you recall any of those studies?
A. Well, you're talking about the percentage reductions that that's been for Ohio. One second. Let me just take a look here. If you look at the -- at AEP, for example, their base case in 2026 is 16 percent, if I am reading this right, and the high case for them is 20 percent, around 20 percent. So AEP's concluded the same thing.
Q. Any others that you can recall?
A. Well, ACEEE. ACEEE's study back in 2009 gives you a base case of 13 percent.

Q. And you are talking to Mr. Allwein --

EXAMINER PRICE: Wait a second. Wait a second. Where are you getting these AEP numbers from?

THE WITNESS: These are the numbers that were provided to me by my staff.

EXAMINER PRICE: And where did they get these numbers from?

THE WITNESS: I believe the AEP report. If you can bear with me a second, I think I have some of the pages here.

EXAMINER PRICE: I would like to get these into the record so it doesn't just look like hearsay.

THE WITNESS: Sure. Can I provide that to you?

EXAMINER PRICE: You know, we would like to wrap up with you here.

THE WITNESS: Yeah, I bet you would. Me, too.

EXAMINER PRICE: I mean, if you want to, give them to your counsel, and if she wants us to take administrative notice of a document that's in the Commission record, then we can take that up after we're done with you if this is something that is from a filed Commission document.

THE WITNESS: I can -- I'll have to provide it to you. I don't have it here so I can provide it to Ms. Kolich, if you would like.

EXAMINER PRICE: That will be fine.

Q. (By Ms. Kolich) And one last question, you and Mr. Allwein were discussing, I don't recall the topic publication you used, the phrase "bottom-up math." Could you explain what you meant by that?

A. The way the achievable potential study is, I developed it looking at each individual measure and looking at -- and so we belled up from each individual measure to a total achievable potential, so it starts from the bottom up, where the technical potential is top down. We start from generalities and work our way down.

MS. KOLICH: That's all I have, your Honor.

EXAMINER CHILES: Thank you.

Ms. Mooney, would you like to enter an appearance?

MS. MOONEY: Yes, your Honor. On behalf of Ohio Partners for Affordable Energy, Colleen Mooney, 231 West Lima Street, Findlay, Ohio.

EXAMINER CHILES: Do you have any

recross?

MS. MOONEY: No.

EXAMINER CHILES: Mr. Poulos.

MR. POULOS: No, thank you.

EXAMINER CHILES: Mr. Oliker.

MR. OLIKER: No, thank you.

EXAMINER CHILES: ELPC.

MR. McDANIEL: No, your Honors.

EXAMINER CHILES: Mr. Lavanga.

MR. LAVANGA: No.

EXAMINER CHILES: Ms. Kyler.

MS. KYLER: No questions.

EXAMINER CHILES: Ms. Kern.

MS. KERN: No questions, your Honor

EXAMINER CHILES: Mr. Somoza.

MR. SOMOZA: No questions.

EXAMINER CHILES: Mr. Allwein.

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RECROSS-EXAMINATION

By Mr. Allwein:

Q. I just wanted to ask Mr. Fitzpatrick, I wasn't clear on the answer he gave to the Attorney Examiner on where he got the AEP information.

A. Members of my staff put that information together for me from the AEP report.

Q. And which report are you referring to?
A. Their Market Potential Study.
Q. Okay. Their most recent Market Potential Study?
A. Yes.
Q. Thank you. And the ACEEE report from 2009, you referenced that. Can you give any me details on what that is?
A. No. It basically was a base case analysis. As I recall -- one second, I might have some more on that. That's basically the programmatic effects. They assume the remaining percentage would come from codes and standards, but programmatic effects would be 13 percent. That would basically cover half of what's required of 22 percent, and that's in that report.
Q. Okay. And the only information you have on that report right now -- I don't know if you cited it in your testimony or in the Market Potential Study.
A. We did. I think your witness did as well.
MR. ALLWEIN Okay. Thank you. I have no further questions, your Honor.
EXAMINER CHILES: Mr. Dougherty.

MR. DOUGHERTY: No questions.

EXAMINER CHILES: Mr. Williams.

MR. WILLIAMS: No questions.

EXAMINER CHILES: Mr. Parram.

MR. PARRAM: No, your Honor.

MR. KELTER: You include a number of factors that go beyond just energy efficiency programs, so if that report is going to be cited, I think we really need to know exactly which report that is.

MS. KOLICH: Your Honors, the company will provide it on the record after lunch.

EXAMINER CHILES: That fine.

MR. KELTER: Yeah, that's fine.

EXAMINER CHILES: M PC.

EXAMINER PRICE: Price no questions.

EXAMINER CHILES: I have no questions. So thank you. You may step down.

THE WITNESS: Thank you. Right now we will adjourn for lunch.

MS. KOLICH: Your Honor, would you like for me to move the testimony now, or later after lunch?

EXAMINER CHILES: You can move it now.

MS. KOLICH: Are we on the record? At

this time the company would move into evidence Company Exhibit No. 3.

EXAMINER CHILES: Are there any objections to the admission of Company Exhibit 3?

Hearing none, Company Exhibit 3 will be admitted.

(EXHIBIT ADMITTED INTO EVIDENCE.)

EXAMINER CHILES: Anything further before we break for lunch?

MS. KOLICH: No, your Honor.

EXAMINER CHILES: We'll return at 2:00 o'clock. We'll go off the record. Thank you.

(At 12:53 p.m. a lunch recess was taken until 2:12 p.m.)

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Tuesday Afternoon Session,
October 23, 2012.

- - -

EXAMINER CHILES: Let's go ahead and go on the record.

(Witness sworn.)

EXAMINER CHILES: Thank you. You may be seated.

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DENNIS W. GOINS

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

DIRECT EXAMINATION

By Mr. Lavanga:

Q. Can you please state your name and business address for the record.

A. My name is Dennis Goins. My business address is 5801 West Chester Street, Alexandria, Virginia 22310.

Q. And on whose behalf are you appearing today?

A. I'm appearing on behalf of Nucor Steel Marion and the Ohio Energy Group.

Q. Okay.

MR. LAVANGA: Your Honor, at this time I

would like to have marked OEG/Nucor Exhibit 1, which is the Direct Prepared Testimony of Dr. Goins.

EXAMINER CHILES: It will be so marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MR. LAVANGA: And OEG/Nucor Exhibit 2, this is the errata sheet to Mr. Goins' testimony.

EXAMINER CHILES: It will also be marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MR. LAVANGA: Thank you.

Q. (By Mr. Lavanga) Do you have a copy of what has been marked OEG/NUcor 1 and 2?

A. I do.

Q. And is that your direct and prefiled testimony and the errata sheet?

A. It is.

Q. Can you please explain the changes that are shown on the errata sheet.

A. The errata sheet, delete a portion of the testimony that relates to a concern raised by me concerning FirstEnergy's response to certain information requests that had been submitted relating to the development and design of the DSE charge.

Q. And was there an additional change?

A. Yes. At -- at page 10, line 10, separate from the major deletion, the word "energy" is changed to "program." That was a typo.

Q. So can you read that sentence as modified by your errata sheet?

A. The sentence would read, "The Commission should direct FirstEnergy not to allocate these costs on the basis of energy, even if the costs are later trued-up based on actual program use by rate schedule."

Q. Thank you. And aside from the changes on that errata sheet, are there any other changes you would like to make to your testimony?

A. No.

Q. And if I were to ask you the same questions today, would your answers be the same?

A. Yes.

MR. LAVANGA: Your Honor, the witness is available for cross-examination.

EXAMINER CHILES: Thank you.

Companies?

MR. LANG: Thank you, your Honor.

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CROSS-EXAMINATION

By Mr. Lang:

Q. Good afternoon, Dr. Goins.

A. Good afternoon.

Q. I'm Jim Lang, representing the companies, the FirstEnergy utilities. I wanted to start off at page 6 of your testimony.

A. Okay.

Q. This section starts with "Allocation and Recovery of EE/PDR Program Costs." Now, in this first section of your testimony, you're addressing the rate design for the DSE2 charge that is part of rider DSE; is that correct?

A. It is.

Q. You are not offering an opinion on the rate design for the DSE1 charge.

A. No.

Q. And you are not also offering an opinion on the rate design that's generally applicable to FirstEnergy's other rate schedules; is that correct?

A. That's correct.

Q. Same is true, you are not offering an opinion on the rate design for the GP, GSU, or GT schedules.

A. That's correct.

Q. And you do agree that the FirstEnergy utilities are not proposing any changes to the DSE2 charge in this proceeding.

A. Yes.

Q. And at the top of page 7 of your testimony, you describe how cost allocation is done for the rate schedules going back to the first portfolio plan proceeding; is that correct?
A. It is.
Q. And the companies are not proposing any changes to the allocation as you describe it here at the top of page 7; is that your understanding?
A. It is.
Q. Now, on page 8 of your testimony, you describe what you referred to as volatility of the DSE2 charges. Is it correct that you have not attempted to determine the empirical basis for the volatility that you describe?
A. That's correct.
Q. And is it also your understanding that the DSE2 charge to GT customers reflects actual GT program costs, putting aside the ELR-type programs?
A. Yes.
Q. Now, one of your recommendations is a monthly cap for the GT customers, and what you recommend is a $10,000 monthly cap; is that correct?
A. It is.
Q. With regard to that recommendation, is it fair to say that you do not know what impact that

would have on Nucor?
A. That's correct.
Q. And you have not performed an analysis of the impact of the $10,000 monthly cap on any Ohio Energy Group member; is that fair?
A. That's correct.
Q. And you have not performed an analysis of the impact of the $10,000 monthly cap on GT customers generally; is that true?
A. That's true.
Q. Now, under your proposal, if a GT customer exceeds the monthly cap, any overage would be spread across the GP and GSU and GT customer sectors; is that true?
A. Yes. It would be carried forward to the next rate setting of the DSE2 charge and then spread.
Q. So that would be in each, I guess, every six-month readjustment of the charge?
A. Yes.
Q. Do you know whether that would require the companies to modify their systems, their billing systems, to track such a cap?
A. I'm sure it would require some modification.
Q. And that would necessarily increase the

program administrative expenses; is that fair?

A. Marginally, probably.

Q. Now, with regard to your recommendation to distribute the excess among the three customer classes, GP, GSU, and GT, you have not performed an analysis of the rate impact on GP or GSU customers of that recommendation; is that fair?

A. That's fair.

Q. That's true for all three years of the portfolio plan, you've not provided a rate analysis -- a rate impact analysis.

A. That's correct.

Q. In addition to the cap on page 13 of your testimony, you also set out other alternatives that the Commission could consider. I believe that starts at line 21. And is it correct that one of those alternatives would be to have all GT customers pay the same amount each month, so essentially a flat monthly charge?

A. That's one, yes.

Q. Another alternative would be a declining block design, as you recommend it?

A. It's another alternative that is cited.

Q. If the Commission were to consider declining block design, you did not attempt in your testimony to determine where the block break should occur in that design; is that fair?

A. That's fair.

Q. Now, starting at page 14 of your testimony, you discuss the company's proposed shared savings mechanism --

EXAMINER PRICE: Mr. Lang, if I can interrupt for one second.

MR. LANG: Sure.

EXAMINER PRICE: Did you determine what the DSE2 charge would be, a monthly customer charge, what that charge would be based on current or projected spending?

THE WITNESS: No, I did not.

EXAMINER PRICE: Thank you.

Thank you, Mr. Lang.

Q. (By Mr. Lang) With regard to a shared savings mechanism, you agree that whether -- whether a shared savings incentive mechanism should be approved by the Commission is a normative or a policy judgment to be made by the Commission?

A. It is.

Q. And the level of such a mechanism, percentages of shared savings that might be approved is also a normative judgment, in your mind?

A. Yes.

Q. And, again, by "normative" we mean a value judgment or a policy judgment, kind of the economic meaning of that?

A. It is a nonscientific value judgment.

Q. Now, and certainly at some point, you know, 100 percent or 200 percent, you would believe that the shared savings percentage would? Would empirically be unreasonable.

A. Yes. I think you could prove that.

Q. But you would agree that whether the Commission uses 8 percent or 10 percent or 15 percent as the maximum sharing percentage, that would be a normative judgment possibly made by the Commission.

A. It is a normative judgment, but it is also a judgment that I believe can be bounded by factors that are unrelated, for example, to simply the assumed incentive necessary to stimulate the achievement of a certain level of savings. And it's those factors that I believe can be brought into play to make that judgment.

Q. Well, let's explore that because I think it's -- it's your belief, is it not, that it generally is unnecessary to provide incentives for most energy efficiency programs?

A. I think it's unnecessary to provide incentives to stimulate the achievement of savings in excess of the legislative benchmarks.

Q. Now, you would recognize that reputable people make contrary arguments to that position, some I think in this room today.

A. Yes.

Q. And you have developed -- you have developed incentive mechanisms in the past for utilities; is that correct?

A. I have.

Q. Is it correct that none of those incentive mechanisms were in the context of energy efficiency or peak demand reduction programs?

A. One was explicitly. I think in our discussion in a recent Duke case in Indiana I did propose -- I objected to the incentive mechanism that Duke had proposed in that case. I think it was 43955, or something like that. But I said if the Commission wanted to adopt an incentive mechanism, I had an alternative, and I presented it.

Q. But it's fair to say you haven't developed an incentive mechanism for -- for a utility, certainly other than in this Duke proceeding in Indiana?

A. I've not testified on what I -- I've worked with clients that have filed comments and briefs in cases involving it, but I have not testified. I went back and checked after our discussion.

Q. You are familiar with incentive mechanisms in other states including, you said, Indiana, and I believe you've also provided testimony in Arkansas; is that correct?

A. In Arkansas, a number of states have them, Michigan, California, New York.

Q. And in those programs in other states of which you are familiar, the -- there's been, say, a fairly wide range of shared savings approved in those states; is that correct?

A. They are different mechanisms. They're different formulations. They're different applications. They're different magnitudes of incentives, monetary incentives, built into those programs. Very few of them -- some have common characteristics, but it's hard to identify one that's identical to another.

Q. With respect to the shared savings incentive mechanisms with which you're familiar, the range of shared savings that you've seen has been anywhere from slightly above zero to the mid teens; is that correct?

A. That's fair.

Q. You're not aware of a shared savings mechanism that had a percentage that exceeded 20 percent; is that right?

A. Not explicitly, I'm not. There are certain calculations that I've seen that indicate that one could tweak a program to drive the savings up, but, in general, I would say no. Most of the savings levels, again, the most common are from slightly above zero to somewhere in the mid teens.

Q. And with regard to the programs that had shared savings on the higher end, you typically see multiple tiers or interim tiers in that mechanism; is that fair?

A. That's fair.

Q. Also, some programs that you've seen have caps, some have not.

A. That's fair. That's correct.

Q. And with regard to which states have caps and which don't, you don't -- I guess there's no specific reason that you can identify as to which -- why some have caps and some don't.

A. Well, the orders in some of those states, you know, that have caps are -- will certainly address the cap and state a reason. It simply wasn't pulled out of thin air, but there's -- that reason can vary because those programs are different. The laws under which they are enacted or implemented are different. The utilities are different.

Q. Now, one of your recommendations is that the top sharing percentage should be 8 percent; is that correct?

A. It is.

Q. And you have not done an empirical analysis to determine that 8 percent is the optimal top tier level; is that fair?

A. Well, since we said that at the outset of this discussion, that this was a normative process, I don't think anyone could say what the optimal from a social welfare point of view, what a -- the optimal incentive structure should be if one wanted to implement it. In a normative scheme, my judgment is as good as your judgment.

Q. Well, thank you. Is the -- with regard to showing that some other percentage should be the top tier level would be the same response, you've not done an empirical analysis?

A. That's true.

Q. Now, you are aware that the shared savings percentages proposed by the FirstEnergy utilities are the same percentages approved by the Commission for AEP Ohio in their recent portfolio plan case; is that right?

A. That's correct.

Q. But you would -- your position is then that you oppose AEP Ohio's shared savings incentive mechanism; is that right?

A. I've done no independent evaluation or analysis, and I didn't testify on that in the AEP case so I haven't formed an opinion. I simply stated in the context of the -- my guess is had I testified on it, I would have come out with something fairly similar to what I testified to in this case.

Q. As an alternative to my basic recommendation.

EXAMINER PRICE: Was OEG or Nucor an intervenor in that case?

THE WITNESS: In the AEP case? I don't know.

EXAMINER PRICE: All right.

Q. I want to ask you a few questions about your testimony, about bidding the rider ELR load into the PJM capacity auction, base residual auctions.

You are -- are you aware that the Commission recently approved the FirstEnergy utilities' most recent electric security plan, which I think we call it ESP III?

A. Yes.

Q. Are you somewhat familiar with ESP III?

A. Only the basics.

Q. Okay. And, now, as part of the ESP III, the Commission approved rider ELR to continue through May 31, 2016. Is that something that you are familiar with?

A. That's one of the basics.

Q. I won't go beyond that.

A. I'm sorry.

Q. That's fair. Now, are you familiar with curtailment service providers?

A. Generally speaking, yes.

Q. Could you tell us generally your understanding of what curtailment service providers do?

A. They are independent business organizations that can essentially create business linkages or deals with customers and bid into auctions of RTOs the interruptible load provided by those customers.

Q. And --

A. They also can --

Q. I think, Mr. Poulos, I will pick on him. You are familiar with EnerNOC, who he represents, is a curtailment service provider?

A. Yes.

Q. And are you aware that in the ESP III that EnerNOC opposed the extension of ELR to May 31, 2016?

A. I am not.

Q. Are you aware that curtailment service providers believe that interruptible loads should be acquired and compensated through the market and not through a utility tariff?

MR. LAVANGA: Objection. The witness has no way to know what a curtailment service provider thinks of that rider ELR.

EXAMINER CHILES: Your response?

MR. LANG: To the extent I'm asking -- I am asking for his knowledge and understanding of curtailment service providers and the positions they put forward in Ohio and everywhere else, to my knowledge.

EXAMINER CHILES: The objection is overruled. The witness can answer to the extent he knows.

A. The only thing I know is what I read in the trade press on occasion and that I have seen, the general statements that you've made.

Q. And what would -- what would that be with regard to curtailment service providers and acquisition of interruptible load to be bid into the PJM auction?

A. I'm not sure I understand your question. What would that be?

Q. I said, what is it that you've read in the trade press?

A. Oh, the question that you had asked me was -- or are you generally aware that these organizations are -- want the interruptible load to be handled in, we'll call it, an independent market, nonutility independent market.

Q. Rider ELR customers, the company's existing rider ELR customers, cannot shop for generation; is that your understanding?

A. Under the rider as it's written, yes.

Q. And as a result of that, the rider ELR customers cannot benefit from the competitive offers available in the market; is that also your understanding?

A. Independently, yes, that's correct.

Q. It's possible then that if the Commission favors pro-market -- pro-market arguments in the company's next electric security plan proceeding, rider ELR could be eliminated as part of that next proceeding; is that fair?

A. I have no way of knowing what the Commission might do, and, in particular, whether it relates to a pro-market. I view FirstEnergy's offer of interruptible, curtailable service as a market mechanism, and FirstEnergy has exercised that product -- using that product in a way similar to what a CSP might because FirstEnergy has in the past bid the nonfirm load into the PJM base residual auction. It hasn't done it consistently but has done it, as I state in the testimony.

Q. Now, referring to rider ELR as a market mechanism, have you compared the rider ELR offer to market offers for interruptible load available from CSPs, curtailment service providers?

A. No. I've made no direct comparison and, in particular, as it relates to this FirstEnergy's ELR.

Q. Do you know whether rider ELR is designed to be a market based offer for interruptible?

A. Well, it has two components, one of which would be what I would call a focus on cost of service type approach or VAG approach for the interruptible load, and I've testified on that in prior ESP cases or case, at least, and then there is an economic development component that can be combined with it.

Q. Nucor is a rider ELR customer; is that right?

A. Yes.

Q. Now, the next PJM base residual auction will take place in May of 2013; is that right?

A. Yes.

Q. And that auction is for the 2016-2017 delivery year?

A. It is.

Q. At the time that auction -- at the time that auction takes place, the FE utilities will not have -- will not have ownership rights to interruptible load for the 2016-2017 delivery year.

Do you want me to try that again?

A. I think it came out as a statement --

Q. Let me ask you --

A. -- when you were tapping the --

Q. Do you agree that at the time that auction takes place, the FE utilities will not have ownership rights to interruptible load, the rider ELR interruptible load, for the 2016-2017 delivery year?

A. Yes.

Q. And is it also fair to say that you do not know whether at the time the auction takes place in May of 2013, the FE utilities will have interruptible load that meets PJM measurement and verification standards?

A. I don't.

Q. Now, Nucor as a -- as a company with potentially interruptible load has the option of contracting with a curtailment service provider to have its interruptible load bid into the next PJM base residual auction that will take place in May, 2013; is that fair?

A. That's fair. Well, I take that back because I don't know what the Nucor contract actually says. I haven't examined it.

Q. Do you know whether Nucor, as we sit here today, has contracted with anyone other than the FirstEnergy utilities to have their interruptible load bid into the May, 2013, aches?

A. No, I do not.

Q. Is that something you've asked Nucor to -- is that information you wanted to know?

A. No; not for this purpose at all.

Q. So as we sit here today, you don't know whether or not Nucor has committed through an entity other than the FirstEnergy utilities to have the interruptible load bid into the May, 2013, auction; is that right?

MR. LAVANGA: Objection, asked and answered.

EXAMINER CHILES: Sustained.

Q. Now, with regard to bidding interruptible load into the May, 2013, auction, any Ohio Energy Group member has that option and any current rider ELR customer has that option; is that correct?

A. To the extent that they are not contractually obligated to FirstEnergy or one of the operating companies, I would assume they did. But, again, I haven't examined the contracts.

Q. Do you have any reason to believe that any of the current rider ELR customers are contractually obligated to the FirstEnergy utilities with regard to the 2016-2017 delivery year?

A. Again, I don't know what kind of arrangements. I haven't examined their contracts.

Q. Do you even know what the number is of rider ELR customers?

A. I don't remember the exact number of customers. It's relatively small.

EXAMINER PRICE: Do you know the load, the cumulative load, of the ELR or OLR customers?

THE WITNESS: The load I think is 200 that FirstEnergy provided in a data response as cumulative for registered with PJM for ELR.

EXAMINER PRICE: Thank you.

Q. Dr. Goins, do you remember what the timeframe was for that 200 megawatts?

A. It's in the back of my testimony in a data response, and it's in the next few years, two to three years, one to three years, somewhere in that timeframe.

Q. Now, your recommendation is that FirstEnergy bid interruptible load into the 2016-2017 capacity auction which will be held next May. Is your recommendation that FirstEnergy calculate the amount of the load using the curtailable load definition in rider ELR?

A. No, I haven't testified to that.

Q. Are you making any specific recommendation with regard to the amount of the load that's calculated for purposes of bidding into PJM?

A. No.

Q. Are you familiar with the PJM rules providing penalties for failure to deliver load that's been bid in an auction?

A. Generally, yes.

Q. Do you know currently how the penalties are calculated for load that's bid in, and then three years later, there's failure of delivery?

A. No. Whenever I have that question come up, I download the rules or pull up my files to read them.

Q. Do you agree that in furture years PJM could increase its penalties for failing to deliver load?

A. I'm sure PJM could do whatever PJM, its board, and its members agree to.

Q. Do you know whether there's been a discussion of PJM increasing penalties in future years, penalties specifically for failure to deliver load that's been bid in an auction?

A. No.

Q. Now, let's see, I've asked you about curtailment service providers bidding load into the May, 2013, auction for the 2016-17 year. You also agree that curtailment service providers could acquire and bid load into the incremental auctions to the extent they occur for the 2016-17 delivery year; is that right?

A. That's a general understanding I have, but I'm not an expert on the PJM rules. Again, when I need them, I read them.

Q. And would you also agree you are not an expert on the PJM incremental auctions and the timing of those, how they are organized?

A. Well, I think we agree the timing -- well, we agreed to the BRA, I'm sorry. You're talking about the incrementals.

Q. Right. Specifically with the incremental auctions, is that something you consider yourself to be an expert on?

A. No.

Q. Now, I will ask you a series of questions about the May, 2013, auction. Is it also true that curtailment service providers can acquire and bid current rider ELR load into the base residual auctions that will be held in May of 2014 and May of 2015?

A. If those loads weren't under contract to FirstEnergy, I assume they could.

MR. LANG: Thank you, Dr. Goins and your Honors. That's all I have.

EXAMINER CHILES: Thank you.
IEU?
MR. OLIKER: Just a few questions, your Honor.

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CROSS-EXAMINATION

By Mr. Oliker:

Q. Good afternoon, Dr. Goins. My name is Joe Oliker. I represent IEU-Ohio. I just have a few questions for you this afternoon. I guess to start, what materials did you review for purposes of compiling your testimony?

A. I listed some of them at the first of the testimony. In addition, I reviewed testimony that I filed previously in Ohio. I reviewed the various Commission orders. I didn't catalog them. I simply have thousands of files.

Q. Any specific orders, any efficiency orders, POR plan orders? Do you have anything specific that you looked at?

A. I looked at various orders, but I don't recall any, you know, specific ones. I didn't -- I briefly looked at the ESP III order, but I didn't try to make any detailed analysis of testimony that was filed or briefs that were filed or any of those.

Q. And among the orders you looked at, did you look at any of the orders approving mercantile customers, mercantile customer applications?

A. No.

Q. Okay. Thank you. I think you talked a little bit about this with Mr. Lang so I will try not to be too repetitive but it might be unavoidable.

I think we cleared this up. You believe that costs of energy efficiency programs should be assigned to the rate classes based upon customer participation; is that correct?

A. Yes.

Q. Would you agree this is consistent with the principle of cost foundation?

A. Yes.

Q. Your testimony also recommends modifying the allocation methodology, correct?

A. Yes.

Q. And by that I'm talking about the $10,000 cap for GT customers.

A. Yes.

Q. And just to be clear, you're recommending this cap even if your initial cost allocation methodology is accepted by the Commission, correct?

A. Yes.

Q. And going back to the cap, you would defer costs that exceed $10,000 for GT customers, correct?

A. That's correct.

Q. And this is in response to a question in your testimony about bill impacts for GT customers; is that correct?

A. Yes. In terms of what could happen to very large customers under the DSE2 charges.

Q. And those deferred costs, they would be collected from GSU and GP customers, correct?

A. And GT.

Q. And GT customers.

A. Yes.

MR. LANG: Your Honors, could we have Dr. Goins to press his microphone button again.

THE WITNESS: Sorry.

MR. LANG: It just turns off on its own.

EXAMINER PRICE: Energy efficiency.

Q. (By Mr. Oliker) And on the issue of bill impacts, would costs that exceed $10,000, would that just apply to GT, or would that apply to any -- to any rate class?

A. The way I propose it, it would apply to GT, the large of the large.

Q. Is the bill impact different for a customer on GSU that exceeds 10,000?

A. I would think that the magnitude, the expected magnitude of the excess would be much higher for the GT customer than it would for the GSU customer, but on an absolute and likely percentage basis.

Q. But you wouldn't apply the $10,000 to them, correct?

A. I didn't say I wouldn't. I simply said I didn't in this proposal that I have made in this testimony.

Q. And since there would be deferred cost, would you apply carrying charges to that?

A. Well, it's an issue that -- that would have to be examined. There would be arguments for and against, you know, the carrying charges on that and, you know, I would not be immediately opposed to it. I also would not be immediately in favor of it.

Q. So are you making a recommendation whether there should or should not be carrying costs?

A. I didn't address it in the testimony.

Q. Do you have a recommendation, Dr. Goins?

A. I think that if the Commission believes, as I do, that this excess bill impact problem is sufficient and agrees with me and thinks that the carrying charges are necessary and justified, then the Commission could approve it. I don't necessarily think that they would be necessary. We're talking about a relatively short period of time for these under -- for the excesses, some as short as one month, until the DSE2 charges reset on the semi-annual reset.

Q. So you're not recommending a specific carrying charge rate in this proceeding?

A. That's correct.

Q. Turning to page 12 of your testimony, you say that it is much more likely for smaller industrial customers to take advantage of FirstEnergy's mercantile customers sector programs; is that correct?

A. I give two examples of those, and it was the HVAC program and another one. Let me get there. Yes, like the lighting programs.

Q. Can you explain to me how you define a small industrial customer, Dr. Goins?

A. By small, I don't have a quantitative definition of limit, kW size limit or load factor limit. I'm simply saying that when you're talking about, you know, a 100 kW customer versus a

1150-megawatt customer, that's the difference between large and small, in part. And we can get to quibbling when we talk about customers that are fairly similar in loads but differ maybe by 10 or 20 percent.

Q. And I understand you are not an attorney, but are you aware of whether Ohio law has a specific definition for a mercantile customer?

A. In the rules that I have read, mercantile programs and things are defined, but I don't know -- I don't know as a fact whether the law or what the legal definition is.

Q. Okay. Thank you. Dr. Goins, do you believe a customer with 700,000 kilowatt-hours a year is a large or small industrial customer?

A. Probably reasonably large.

Q. And are you aware if Ohio statutory requirements regarding an electric distribution utility's energy efficiency and peak demand reduction portfolio obligations have any specific provisions with respect to mercantile customers?

A. They do. I can't quote them to you, but they do.

Q. Can you give me a general description, please?

A. I could pull -- pull one of the rules out and read you those. But I don't know -- I can't quote you a definition of a specific mercantile program or a specific of how the law has defined that or how the law has defined a state mercantile customer.

Q. Are you aware whether Ohio law contemplates the Commission having the discretion to provide an exemption to a mercantile customer who undertakes an energy efficiency or peak demand reduction project through their own funding?

A. I am aware of that.

Q. I think we mentioned this earlier, but you haven't reviewed any Commission orders reviewing a mercantile application for an exemption, have you?

A. No.

Q. Are you aware of the Commission's automatic approval procurements for mercantile applications?

A. No, I am not.

Q. And I think you might have mentioned this to Mr. Lavanga, but have you testified in any other proceedings related to energy efficiency?

A. I have.

Q. Can you identify which proceedings you've testified on those matters?

A. Well, on the matter of incentives, the Duke Indiana case, I think -- I think the docket is 43955, and that is the only specific testimony on incentives.

But in terms of energy efficiency and programs similar to that, I testified in several cases in Arkansas. I don't remember the docket numbers. They were all on behalf of the Arkansas energy electric consumers. I've testified on interruptible, curtailable load in multiple jurisdictions and demand response programs in general.

Q. Were any of those proceedings in Arkansas related to the cost allocation for energy efficiency programs?

A. They may have been, I'm not sure.

Q. Perhaps I can refresh your recollection.

A. Okay.

MR. OLIKER: May I approach, your Honor?

EXAMINER CHILES: You may.

MR. OLIKER: I have enough copies.

Your Honor, I would like to mark for identification IEU-Ohio Exhibit 1, the Direct Testimony of Dr. Dennis W. Goins on behalf of

Arkansas Electric Energy Consumers, Inc. in docket No. 07-085-TF.

EXAMINER CHILES: It will be so marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

Q. Dr. Goins, do you recognize this document that's been marked as IEU Ohio Exhibit 1?

A. Yes, I recognize the docket and the client. I don't know if I have -- I don't know if it's complete. I assume it is.

Q. Could you take a look at it for a minute and see if it looks authentic.

A. It does.

Q. Thank you. And so would you agree this is testimony you filed in Arkansas relating to the allocation of energy efficiency project costs?

MR. LAVANGA: Objection. Where does this talk about the allocation of EE costs?

MR. OLIKER: I can lay some more foundation, if you would like me to.

EXAMINER CHILES: Please lay some more foundation.

Q. (By Mr. Oliker) Could you turn to page 8, please. Could you look at that page, and would I be correct that you're discussing the allocation of energy efficiency costs to industrial customers?

MR. LAVANGA: Objection. Where is the specific reference?

EXAMINER CHILES: Can you give us a line reference?

MR. OLIKER: I was trying to summarize the testimony, your Honor, but I would do that if you would like me to.

EXAMINER CHILES: Please do so.

Q. Dr. Goins, would you agree on page 8, line 12, you stated, "In other words, they should be able to opt out of EAI's Quick Start programs and not be subject to charges under Rider EECR?"

Is that your testimony, Dr. Goins, in that proceeding?

A. Yes. That has nothing to do with cost allocation.

Q. Could you tell me why?

A. It's very simple. If you look at the table of contents, you'll see that the subjects that I testified about, beginning at page 6, dealt with the issue of large customer opt out, and the question there was not a matter of cost allocation but rather whether a large industrial customer that undertook its own energy efficiency initiatives should be subject to the program charges that were paying for the utility-sponsored programs. There's nothing in here about this section that you cite and page you cite, nothing at all dealing with cost allocations to various customers.

Q. So if I can understand you correctly, you're saying if a customer undertakes their own energy efficiency projects, they shouldn't have to pay for the cost of the program, correct?

A. What program are you talking about?

Q. I'm talking about your -- the proceeding that you were testifying in, you were saying that a customer should be able to opt out of the costs of energy efficiency if they are undertaking their own energy efficiency projects, correct?

A. Yes, that's what I said. In terms of EAI having a series of what were called Quick Start Programs that were made available, there were probably one or two that were applicable to large customers, none of which were very attractive to most customers. And the industrial customers there that wanted to undertake their own energy efficiency initiatives, you know, which were better than the company's sponsored programs that were available, limited as they were, didn't want to pay double for the opportunity. The savings were going to be counted in terms of meeting goals for the utility anyway so it was a matter of being cost effective.

Q. And can you tell me what the conditions were for being able to opt out?

A. I think I actually attached a sample of what Progress Energy had available. This was simply -- the Commission went on later to actually go in depth and look at opt out, but the focus here was on just giving the Commission an example of a utility opt-out program.

Q. Shifting back to Ohio, would you agree that an opt-out mechanism may provide similar, if not better benefits than a $10,000 cap on monthly charges?

A. I don't -- I don't know. They have two different purposes. The purpose of an opt-out program is essentially to enable a customer that has identified an energy efficient state initiative and wants to undertake it, which may and typically is very expensive, that wishes to undertake those initiatives, they don't want to pay for those savings and then pay for savings they also don't get, in particular, given their contribution.

MR. OLIKER: Can I have one moment, your Honor?

EXAMINER CHILES: Sure.

MR. OLIKER: Thank you, Dr. Goins.

I have no more questions, your Honor.

EXAMINER CHILES: Thank you.

The EPLC.

MR. McDANIEL: No questions, your Honor.

EXAMINER CHILES: Ms. Kern.

MS. KERN: No questions, your Honor.

EXAMINER CHILES: Mr. Somoza.

MR. SOMOZA: No questions.

EXAMINER CHILES: Mr. Allwein.

MR. ALLWEIN: No, your Honor. Thank you.

EXAMINER CHILES: Ms. Loucas.

MS. LOUCAS: I entered an appearance yesterday. Do I need to enter an appearance today?

EXAMINER CHILES: No.

MS. LOUCAS: Yes, I have some questions for Dr. Goins.

EXAMINER CHILES: Go ahead.

THE WITNESS: I can barely see you.

MS. LOUCAS: Yeah, I can't see you either. I'm going to move over a little bit, and I speak softly, so if you don't hear me please let me know and I'll speak up.

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CROSS-EXAMINATION

By Ms. Loucas:

Q. Dr. Goins, Mr. Oliker reviewed with you some of the pertinent portions of the Ohio Revised Code regarding mercantile customers and energy efficiency. Are you familiar with the portion of the code, 4928.66(A)(2)(d), as in dog, regarding reasonable arrangements between utilities and mercantile customers?

A. I've read it all. Am I'm reasonably familiar to have a discussion with you about the ins and outs of it? No.

Q. Okay. Are you aware then -- maybe not. strike that.

Are you aware that mercantile customers may enter into a reasonable arrangement with the utility that addresses program costs associated with energy efficiency programs?

A. That is my recollection of the reading, yes.

Q. And also I take it you reviewed the rules regarding energy efficiency here in Ohio?

A. I reviewed them.

Q. Okay. Not specifically -- you are not specifically recalling them today.

A. I just simply wanted to refresh my mind in terms of -- it was not a matter of going back and trying to prepare for an exam.

Q. Okay. I want to refresh your memory a little bit. 49 -- rule OAC 4901, and for the benefit of the court reporter, 1-39-01, Definitions, addresses nonenergy benefits. Nonenergy benefits as defined in that rule here in Ohio include reductions in greenhouse gas emissions, reductions in regulated air omissions, reductions in water consumptions, reductions in natural resource depletion, and enhanced system reliability.

Do you agree that those are benefits that can be derived from implementation of energy efficiency programs?

A. In general, yes, they could be. Whether a particular initiative or program or effort would achieve those would be subject to analysis.

Q. Okay. But generally speaking, and when undertaken in -- in the proportion here in Ohio, specifically in regard to utilities with specific benchmarks that they have to meet and that amount, can you say, generally speaking, that those -- that those benefits would be realized from implementation of energy efficiency programs that meet and/or exceed

those benchmarks?
A. Well, they might, but there might be benefits or might be a program, for example, that didn't address system reliability at all.
Q. Okay.
A. There might be a program that had no effect on water usage. There might be a program that -- in other words, when I said the -- a decision or an answer to whether a program, you know, an initiative actually achieved a certain goal would be based on the analysis of that program.
Q. Are you familiar with OAC Rule 4901: 1-39-02, where it states: The purpose of this chapter is to establish rules to meet or exceed the statutory benchmarks for energy efficiency.
A. Yes.
Q. Okay. And, again, Ohio Administrative Code Rule 4901: 1-39-04(A) that provides that: An investor-owned utility shall -- shall -- design and propose comprehensive energy efficiency and peak demand response programs that, among other things, meet or exceed the statutory benchmarks for energy efficiency.
A. Yes. I'm aware of that.
Q. Okay. And, again, Ohio Administrative

Code Rule 4901: 1-39-07(A) provides rules that will allow for program costs to be recovered through and an approved rate adjustment mechanism, appropriate lost distribution revenues, and shared savings. Are you familiar with that rule as well?

A. Yes.

Q. Okay. So we could agree, and it's obvious, that Ohio rule -- law and rules provide for a shared savings mechanism in regard to energy efficiency, correct?

A. They don't prohibit it. They don't mandate it. They don't prohibit it.

Q. Okay. And is FirstEnergy's mercantile sector determination for cost recovery consistent with the language found in ORC 4928.66(A)(2)(c)?

A. I have no idea.

Q. Well, you don't find anything in FirstEnergy's cost recovery mechanism that is contrary to any statutory or rule provisions, do you?

MR. LAVANGA: Objection, calls for a legal conclusion.

EXAMINER CHILES: Could you rephrase your question?

MR. LOUCAS: I'll strike that.

Q. Your testimony asserted that the DES2 creates billing volatility. What percentage of a GT customer's bill varies based on the monthly difference between the DES2 charge, if you know?

A. Well, it wouldn't be on a monthly basis. It would be on a rolling six-month basis since it's set -- reset every six months. But I've done no billing analysis. I don't have the bills. I don't have the -- in terms of trying to calculate that, I make no analysis of it.

Q. Okay.

A. I simply cite some examples of how these charges could affect hypothetical customers with certain loads. I did not compare that to their total bills.

Q. Do you know whether or not there are other volumetric charges contained within those bills?

A. I'm sure there are.

Q. And do you know whether or not those --

A. And I say that having not examined their bills either. But I'm sure that there are a number of volumetric charges in the tariff.

Q. And do you know whether or not those other volumetric charges result in the same types of alleged volatility?

A. I have no idea. They are not reset, you know, in the same way as the DSE2 charge is set. There's numerous riders that may or may not be set on a synchronous basis. There are various rate charges that are set only in the context of a case.

Q. So you are not aware then?

A. No.

Q. Okay. Do you have your deposition in front of you?

A. I do not.

MS. LOUCAS: Do you have an extra?

MR. LAVANGA: We have a copy, yeah.

Q. I'm sorry, I meant testimony. I'm sorry.

A. I have that.

Q. I am new at PUCO. This whole thing of submitting your testimony is new to me. We usually submit depositions.

Do you have your testimony before you?

A. I do.

Q. Dr. Goins, okay, can you please turn to page 9, specifically lines 12 to 13. And you state that "The annualized DSE2 cost burden can potentially exceed $1 million annually for FirstEnergy's largest GT customers."

Do you know whether, in fact, any GT

customer has paid a million dollars on an annual basis relative to the DSE2 charges?

A. No. I did not examine, again, any individual customer to determine that. I did simply assume certain loads and load characterizations, as in load factor, and just run the DSE2 charges and you can approach that number.

Q. But you don't know of any specific customer who has actually hit that number, correct?

A. No, I do not.

Q. Are you aware of FirstEnergy -- of energy efficiency programs available to large industrial customers in FirstEnergy's plan?

A. Yes.

Q. Do you know if Nucor or any customer of OEG has taken advantage of any of those plans?

A. I do not.

Q. And I believe Mr. Oliker may have asked you this, but on page 12 of your testimony, you assert that smaller mercantile customers get more benefit from FirstEnergy's mercantile sector programs, and specifically this is on line 17 through 18.

A. Yes.

Q. Do you have any data that you relied on to come to this conclusion? Do you know, in fact, whether or not smaller mercantile customers take greater advantage of these programs than large customers?

A. Well, I can tell you just in terms of having been around a steel mill with an arc furnace that may run 60 to 150 megawatts, or whatever the size -- and I'm not talking about Nucor. I'm just talking about generally you can go to the internet and find what an arc furnace is -- that mill is not going to have a very high HVAC bill. It's simply not a part of the process. The offices may, but the process itself is not.

And most of the customers who I talk and deal with each year, they've already -- you know, they've done the lighting stuff, you know. Their business is to make money for their shareholders and to produce product and pay their employees and stay competitive, so anything that they see, generally speaking, that they can afford that will enhance their operating position or competitive position, they'll do it.

Q. Including implementation of energy efficiency measures.

A. Oh, yes. I mean, you know, in terms you were going through the benefits of energy efficiency, a mini mill like Nucor, for example, and Nucor itself's operation is probably one of the biggest recyclers in the whole United States in terms of reducing waste streams and improving and looking at technologies and the improvements of technologies that may be available, for example, to increase margins or, again, make mills more competitive. If you can do that generally, these businesses will try to do it to their utmost.

Q. And are you familiar with a utility cost test?

A. Generally. It's one of the California tests in terms of looking -- or a variant.

Q. Do you know whether or not it's been applied here in Ohio?

A. The TRC is, to my knowledge, the information, the TRC is the test that's used to evaluate and judge energy efficiency programs here.

Q. Have you ever -- have you ever conducted or analyzed energy efficiency programs within the context of either the utility cost test or the -- or the total resources cost test? Have you ever had to engage in that analysis?

A. I have.

Q. I'm sorry.
A. I have.
Q. You have. Okay. And in what -- and for a particular case or --
A. I guess it was the last ESP case, ESP II. It may have been ESP I, I testified in. I think the first two ESP cases regarding interruptible load, and one of the issues, I think it was a case of whether the TRC was applicable.
Q. Okay. When you say "ESP," are you talking about FirstEnergy's?
A. Yes. I'm sorry.
Q. That's okay. Does decreased demand due to energy efficiency programming reduce generation prices, or can it have downward pressure on generation prices?
A. Well, in the context of a stand-alone utility, it may or it may not. If you think of it, of energy efficiency as a product that can be sold into a competitive market, it may.
Q. Okay. Do you agree that energy efficiency is, itself, an energy resource, where --
A. Yes.
Q. An energy resource?
A. I'm not sure I equate it with a resource.

I know PJM does.

Q. Okay. And would you agree that energy efficiency, generally speaking, is cheaper than new construction or new generation?

A. Again, it will -- again, that's one that I don't want to make a blanket statement on, that question because, again, I think each case has to be analyzed. At times we get in generalities of, for example, energy efficiency is good. Let's have as much of it as we can. And then we forget there are choices to be made, always, whether it's some other type of generation, even the stringent generation, you know, as compared to a central station power plant. So, again, it depends on the context.

Q. In your testimony you assert that FirstEnergy should not receive shared savings on mercantile self-directand transmission and distribution projects if the company took no energy efficiency action associated with them. Is that correct? Does that adequately state your opinion?

A. What page is that on, if you know? I think what you said is a correct statement of what I said.

Q. Page 17, lines 22 to 24.

A. Yes.

Q. Should FirstEnergy be able to receive peak demand response credit for peak demand response undertaken without FirstEnergy incentive or payment of some kind?

A. Would you repeat that question?

Q. It's almost like the mercantile question. Should FirstEnergy be able to receive credit for peak demand reduction undertaken without FirstEnergy initiative or effort?

MR. LAVANGA: I'm sorry.

MS. LOUCAS: Toward its intent.

MR. LAVANGA: Can I have that reread.

(Record read.)

MR. LAVANGA: Are you talking about making demand reduction toward meeting the benchmark?

MS. LOUCAS: No, toward shared.

A. In general, with respect to the shared savings, I wouldn't -- I wouldn't think so.

Q. Okay. And would the same be true for energy efficiency credit?

A. If they undertook or were expended to resources on this, no, not on the shared savings.

Q. And on --

A. I don't object to them getting credit toward the benchmarks.

Q. Okay. And on page 21 of your testimony, you enumerate the benefits of bidding in ELR load into the PJM, specifically on line 6 through 8.

A. Okay.

Q. In fact, you did indicate, "By bidding in the ELR load as a 'price taker,' the ELR load can displace higher-priced generation resources and result in lower capacity clearing prices." Is that your testimony?

A. It is.

Q. Can the same be true for FirstEnergy bidding in energy efficiency resources into the capacity auction?

A. To the extent that those energy efficiency resources could displace higher cost generation, yes.

Q. Okay. Now, I just want to take a second and talk about economic development riders. Are you aware of economic development riders in general?

MR. LAVANGA: Objection.

EXAMINER CHILES: Basis?

MR. LAVANGA: Where does he testify on economic development riders?

MS. LOUCAS: I want to make a comparison of those who pay and benefit from economic development riders and shared -- and cost recovery mechanisms for energy efficiency programs, theoretically.

MR. LAVANGA: The witness isn't testifying on economic development programs.

EXAMINER PRICE: But he did -- he did testify the rider ELR had an economic development component to it.

MR. LAVANGA: Well, that's a component of ELR.

EXAMINER CHILES: The objection is overruled.

Q. Okay. Are you aware that economic development riders as collected by investor-owned utilities can subsidize the rates of some manufacturing and industrial companies? Did you hear that now that I'm back on line?

A. I caught the first part and the last part.

Q. Okay. Are you aware that economic development riders collected by investor-owned utilities may subsidize the rates of some manufacturing and industrial companies?

A. Well, they may be a direct rate offset or subsidy or they may not. They may be a direct payment of some kind, but, in general, they are used oftentimes to encourage businesses to locate and, for example, over a period of time, three to five years, show, typical example, might be a declining percentage reduction in electricity cost.

Q. Okay. And, generally speaking, does the economic development rider benefit some customers more so than others?

A. Well, it often is -- is used to attract new business. It's part of a package that often goes into a combination that would get businesses to locate in certain geographical area, and certainly generally would benefit the households who find jobs there, and so there's -- there are a host of people who will benefit, the site suppliers within the supply chain for the business whose business wouldn't exist without the new business. It's what we call a multiplier effect.

Q. Is that -- is it like an incentive in some ways?

A. Well, an economic development credit or program can be an incentive. An incentive is not -- incentive is not an evil word. It's, again, in the context of how it's used.

Q. Okay. Do the utilities -- are utilities permitted to recoup costs for investments in new construction or transmission upgrades?

A. If it's used and useful, generally speaking, my experience has been that they are.

Q. And earlier you had testified that utilities should not gain -- should not receive an incentive for meeting their legal requirements, i.e., the benchmarks. Are you aware that at least one of these companies has not met its benchmark?

A. In what year?

Q. I'm sorry?

A. Do you mean ever or in what one particular year or --

Q. For the year 2011.

A. I think there was one that didn't and two that did.

Q. Okay. And can you please look to page 16, and I'm almost done, beginning -- one moment, please. I apologize, Dr. Goins. If you could look at page 17, beginning at lines 20 through 24, if -- if the companies were amenable to adjusting the incentive tiers to -- to trigger the incentive only auction they exceed -- excuse me. Sorry. If the companies would amend their shared savings incentive so that the incentive would be triggered only auction they exceed the benchmark and it would remove the effects of mercantile self-direct projects, transmission and distribution projects, and behavioral programs from the shared savings calculation, would that make the shared savings incentive a little more palatable for you?

A. I totally didn't get that.

Q. You didn't get that at all?

A. I got two-thirds of it.

EXAMINER PRICE: A little more palatable for you was the last phrase.

A. Well, it would address two of the bullets on page 17. It would not address the cap on the annual incentives. Well, if they reduced them, it would affect the third bullet as well.

Q. Okay. And, generally speaking, you testified -- tell us generally what type of client -- now that you are consulting, no longer working for the North Carolina utilities commission, who generally do you represent?

A. It's been a -- as I told you last week, it's been a long time since I work with the commission.

Q. No. I don't want to know -- generally speaking, who are your clients?

A. My client base consists primarily of large commercial and industrial customers, federal installations, federal facilities, which makes up not only some fairly large customers, but also within major metropolitan areas of fairly sizable commercial customers, mid-level commercial customers, nonresidential.

Q. Nonresidential, okay, and nonenvironmental advocates, correct?

A. I don't know of an environmental customer.

Q. Okay.

A. I'm sorry.

Q. That's okay.

A. But, yes, I don't represent, nor have I ever represented, environmental groups.

MS. LOUCAS: Thank you, Dr. Goins. I have no further questions.

EXAMINER CHILES: Thank you.

Mr. Williams?

MR. WILLIAMS: Thank you.

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CROSS-EXAMINATION

By Mr. Williams:

Q. Just a couple of questions, Dr. Goins.

Good afternoon. My name is Todd Williams, here on behalf of AEEO Ohio. I feel that most of this has pretty well been tread over, so it should be fairly simple.

I would like to direct you to page 15 of your testimony, particularly lines 23 through 26. It's the sentence reading, "As a result, FirstEnergy would have an incentive to spend as much as possible to exceed the statutory benchmarks." This is in regards to the lack of a cap under the shared savings.

I would ask if you are aware of FirstEnergy in any of their other operating companies spending an excessive amount of money to exceed statutory benchmarks on energy efficiency where they have a shared savings mechanism?

MR. LAVANGA: I'm sorry, can I get that question read back?

MR. WILLIAMS: Can we have that read back?

THE WITNESS: The preamble I got. I did not get the question.

(Record read.)

MR. LAVANGA: Are you referring to Ohio, FirstEnergy Ohio utility?

MR. WILLIAMS: No, any of the FirstEnergy operating companies.

MR. LANG: And, your Honors, just so the record is clear, I would -- I have to object, assuming facts not in evidence, that FirstEnergy does have a shared savings. He is assuming that FirstEnergy has shared savings mechanisms for other utilities in other states, and that's simply not something that's before us.

EXAMINER CHILES: Could you rephrase your question?

MR. WILLIAMS: I'm willing to rephrase.

Q. Dr. Goins, are you aware of any utility company in your experience where there is a shared savings incentive where they have just gone ahead and excessively spent money in order to recoup due to a lack of a cap?

A. I haven't done an empirical analysis of companies that have this, but that's the whole idea of an incentive mechanism, in particular auction you don't have a cap, they have an incentive to do it. In the -- businesses respond to incentives, just as households responds -- respond to incentives. If FirstEnergy -- and, again, this is hypothetical -- or any utility had an open-ended spending mechanism and got a higher return on an incremental dollar spent in a shared -- through a shared savings incentive mechanism than it did, for example, on making infrastructure investments or making a new hire for a new employee or making a capital investment in a new office building or a new computer system, if it can get a higher return through that shared savings mechanism, it would be foolish, from a business perspective, not to do it.

The question that we have as consumers is twofold. One, do we want that incentive to be there absent a cap; and, two, assume that they did act as we would think a normal business would act and spent more than -- than it would have normally or that was prudent, and it had adverse consequences on customers. Would that be a good thing or a bad thing? In my mind, it would be a bad thing.

Q. Thank you, Dr. Goins. You are not -- to be clear, you are not aware of any utility that has done this?

A. Well, other than the California utilities and a few of the others, these incentive mechanisms that are like this are relatively new. Duke Energy's mechanisms that it's been able to get in place in a couple of states, whatever, you know haven't been in effect very long. Other utilities have -- some have more experience with these than others, but, again, it's not a matter of whether we have empirical evidence that it has happened somewhere else. The question is a basic public policy issue. Do we want to create an incentive as a matter of public policy that is open ended and which we know can have unintended consequences? I think it's too late after those bad unintended consequences occur to start worrying about it. I would rather worry about it at the beginning.

Q. Are you aware of any of the proposed incent -- well, proposed programs in FirstEnergy's plan that you reviewed for this matter where it would be cost effective to just ramp up spending, given the proposed low levels of incentive coming back to them under the shared savings mechanism?

A. Well, it's your characterization that it would be a low level of incentive. It's not mine.

Q. Okay. Given -- given any characterization of the percentage level as proposed by FirstEnergy.

A. Well, FirstEnergy responded in an interrogatory auction they were asked how would you operate differently if you had the incentive mechanism. This is a paraphrase, and we can provide you with the specific data response, but FirstEnergy said, in general, we don't know. So I'm not sure how they would react.

Q. Are you aware of any program, though, that the amount of spending to increase where it would make financial sense under your business, you know, normal business operating model that would make financial sense for the FirstEnergy companies to go ahead and ramp up spending in order to recoup more under the shared savings than it would cost them to increase spending?

A. To my knowledge, I didn't make such an analysis. To my knowledge no one in this case has made such an analysis.

Q. Thank you, Dr. Goins.

A. Including the proponents.

MR. WILLIAMS: Thank you. That will be all.

EXAMINER CHILES: Thank you.

MR. PARRAM: No questions.

EXAMINER CHILES: Ms. Mooney, I believe we skipped over you.

MS. MOONEY: I have no questions.

EXAMINER CHILES: Mr. Poulos.

MR. POULOS: I do not.

EXAMINER CHILES: Mr. Parram.

MR. PARRAM: I have none, your Honor.

EXAMINER CHILES: Mr Lavanga.

MR. LAVANGA: Can we have 5 minutes, please?

EXAMINER CHILES: Yes, you may. We'll take a five-minute break.

(Recess taken.)

EXAMINER CHILES: Back on the record.

Mr. Lavanga.

MR. LAVANGA: Your Honor, we have no redirect.

EXAMINER CHILES: Examiner Price, do you have any questions?

EXAMINER PRICE: I have a couple.

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EXAMINATION

By Examiner Price:

Q. Dr. Goins, there were some questions earlier about AEP's portfolio plan and its shared savings mechanism and similarities between what FirstEnergy's proposed and what has been adopted for AEP; is that correct?

A. That was a question -- my recollection is there was a question about the percentages in the tiers being the same.

Q. Right, exactly. Do you know whether the first -- the AEP shared savings mechanism was created as a result of a stipulation between AEP and other parties?

A. My understanding is it was.

Q. And in a stipulation, one might expect that some parties may have negotiated something mutuallyly acceptable, something that may not have been in their litigation provision in order to achieve some other end; is that correct?

A. Exactly.

Q. Second, you mention on page 2 of your testimony that the Commission did not approve the ESP III for FirstEnergy until after the May, 2012, capacity auction; therefore, FirstEnergy did not bid in the ELR capacity; is that correct?

A. I said that was my understanding of it based on information that FirstEnergy had supplied to us.

Q. Right. Was the May, 2012, auction the last opportunity FirstEnergy had to bid capacity into the 2015-2016 delivery year?

A. I don't think so, but I don't know the exact date, if there was -- I can't tell you with certainty.

Q. But there are incremental auctions --

A. Exactly, yes, there are.

Q. -- which may take place before the 2015-2016 delivery year.

A. There are.

Q. Do you know of anything which would prevent FirstEnergy from bidding that capacity into the 2015-2016 -- any incremental auctions which may be held for the 2015-2016 delivery year?

A. I don't know of anything, but there may be, but I don't know.

Q. You do not know of any?

A. I do not know.

EXAMINER PRICE: That's all I have. Thank you.

EXAMINER CHILES: I have no questions. So thank you. You are excused.

THE WITNESS: Thank you.

MR. LAVANGA: Your Honor, I would like to move to have OEG/Nucor Exhibits 1 and 2 admitted into evidence.

EXAMINER CHILES: Are there any objections to OEG/Nucor Exhibits 1 and 2?

Hearing none, OEG/Nucor Exhibits 1 and 2 will be admitted.

(EXHIBITS ADMITTED INTO EVIDENCE.)

MR. OLIKER: I would like to move for the admission of IEU-Ohio Exhibit 1.

EXAMINER CHILES: Are there any objections to the admission of IEU-Ohio Exhibit 1?

Hearing none, IEU Exhibit 1 will be admitted.

(EXHIBIT ADMITTED INTO EVIDENCE.)

EXAMINER PRICE: Company would like to call its next witness.

MS. DUNN: The company would like to call the much-anticipated Edward C. Miller. I feel like we should give him a round of applause, by the way.

EXAMINER PRICE: We'll save that to the end.

MR. MILLER: I hope so.

(Witness sworn.)

EXAMINER PRICE: Please be seated, and state your name and business address for the record.

THE WITNESS: My name is Edward Charles Miller. My business address is 631 Excel Drive, Mount Pleasant, Pennsylvania 15666, Suite 200.

EXAMINER PRICE: You may proceed,

Ms. Dunn.

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EDWARD C. MILLER

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

DIRECT EXAMINATION

By Ms. Dunn:

Q. Mr. Miller, do you have in front of you what's been previously marked as Company Exhibit 4, your testimony?

A. I do.

MS. DUNN: Okay. Your Honors, I would like to mark the Testimony of Edward C. Miller as Company Exhibit 4.

EXAMINER PRICE: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

Q. And, Mr. Miller, Exhibit 4 in front of you, that is your testimony in this case?

A. Yes, it is.

Q. And do you have any corrections to your testimony?

A. I do. On pages 18 and 19 of my testimony, there are tables representing the benchmarks for the period 2013 through 2015. These were previously e-mailed to the parties by my counsel with the corrections, and they are the same tables that are included in the companies' plans on page 2 of the companies' plan, also known as table 3.1 in the individual company's plans.

Q. And just to be clear, Mr. Miller, the tables that you referred to in the companies' plans, those are the correct tables, correct?

A. That is correct.

Q. And if -- other than the correction you made, if I asked you the same questions -- or excuse me. One more question. The testimony in this case, was that prepared by you or by someone under your direction?

A. Yes, it was.

Q. And if I asked you the same questions, other than the correction you just identified today, would your answers be the same?

A. They would.

MS. DUNN: The witness is available for cross.

EXAMINER PRICE: Ms. Mooney.

MS. MOONEY: Yes, thank you, your Honor.

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CROSS-EXAMINATION

By Ms. Mooney:

Q. Mr. Miller, my name is Colleen Mooney. I'm an attorney for Ohio Partners for Affordable Energy, and I just have a few questions to ask you about the Community Connections program that's on page 9 of your testimony, and it's at the bottom there from lines 18 through 23.

And you say that the Community Connections program "provides weatherization measures, energy efficiency solutions and client education to the Companies' low-income customers at no additional cost to them."

And then you say, "The Commission approved the proposed extension of the Community Connections program in its July 18, 2012 Order in the Companies' Electric Security Plan Case No. 12-1230-EL-SSO."

My question -- and then you have a footnote there on page 10, and it refers to the order in the SSO case on page 13. And my question -- my first question is what -- what do you mean by extension on line 22 of the Community Connections program, the proposed extension?

A. On line 22, page 9?

Q. Yes, yes, page 9.

A. Yes. The extension was referring to that the Community Connections program was provided under the previous electric security plan, I guess referred to as ESP II, and that the program included as part of the companies' proposed portfolio for '13 through '15 is the continuation of that program as included under ESP III.

Q. And on page 13 of that opinion and order in 12-1230-EL-SSO and its finding No. 21 there, it says, "The companies will continue funding the Community Connections program under the same terms and -- as the amount set forth in Case No. 07-551-EL-AIR and 08-935-EL-SSO, that's ESP II -- for the period of ESP III.

But then it says, "However, provided that the amount may be increased as a result of the energy efficiency collaborative approval of such funding and Commission approval of the increase and authorization recovery of increased funding through rider DSE or other applicable rider."

Do you see that?

A. Are you referring to my testimony?

Q. No, no. I was reading from the Opinion and Order on page 13 that's in your footnote.

A. Okay. I don't have that.

MS. DUNN: Counsel, he doesn't have it in front of him. If you want to provide it to him, he could -- I have no objection to using it, but he just doesn't have it in front of him.

MS. MOONEY: I can show it to him.

MS. DUNN: Okay.

MS. MOONEY: All I've got is the actual page 13.

Q. But -- I'll show it to you, but the question is, auction you referred to extension of the Community Connections program, there was no additional funding from what was already given in this ESP case -- that was given in the prior ESP case. I can give you the case numbe of that one. It was the same terms and conditions, in other words, there was no increase by --

A. I see the language that's referenced. I am not sure of the question. I apologize.

Q. Well, it -- from the way the -- your testimony on page 9, lines 21 and 22, the reference to an extension is just a reference to it going forward in time, but there was no increased funding as a result of the approval of the electric security plan in Case No. 12-1230-EL-SSO.

A. That is correct.

Q. Thank you. And there was also -- let me have that. And do you know in what case the Community Connections program was originally funded by FirstEnergy?

A. I do not know.

Q. Well, it was in Case No. 07-551-EL-AIR. Do you want to see it again?

MS. DUNN: We will stipulate that's the correct case number.

MS. MOONEY: Thank you.

Q. And do you know what the funding level was for the Community Connections program in 07-551-EL-AIR?

A. I do not.

Q. You wouldn't happen to have a copy of the Opinion and Order in 07-551-EL-AIR with you?

A. I'm sorry, I do not.

MS. MOONEY: And that was January 21, 2009. Could I show him the relevant pages of this? And it's page 43? I only gave him pages 43 and 44 of that opinion and order.

Q. And that's -- it was funded at $5 million as a result of the Opinion and Order in 07-551, the rate case.

A. I see the term on page 43 that references the 5 million per year funding, but I can't speak to all the terms and conditions, you know, associated with this order.

Q. Okay. That's fine.

MS. MOONEY: And, your Honors, I don't need to ask for administrative notice of prior Commission orders.

EXAMINER PRICE: No. You can refer to that freely.

MS. MOONEY: Thank you.

EXAMINER PRICE: Could you move her microphone just a little closer. I think it's right under the speaker. No, no, you want to stay close to Mr. Lang.

Q. (By Ms. Mooney) So basically there hasn't been an increase in the funding for the Community Connections program since it was initiated in that opinion and order that you have in -- in that '07 rate case; is that correct?

A. Based on the information I have, that is correct.

Q. Does FirstEnergy monitor or have the sense of the number or the percentage of low income customers in the service territories of the three operating companies, Ohio Edison, Toledo Edison, and

Cleveland Electric Illuminating Company?
A. Our systems do not specifically track low income customers. There are indicators that we have in the system regarding participation and specific, you know, types of programs where the customers were qualified as low income, but it's not an accurate -- you know, it's not a full representation of the low income population.
Q. Would you have a sense if the low income population in the three operating companies has increased since the opinion and order in the '07 rate case position?
A. I would have no basis for how that population has changed since 2008.
Q. So FirstEnergy doesn't keep track of that information about whether there has been an increase or decrease in the low income population service territories.
A. I do not have that information. We do have individuals who are directly involved with the low income programs who could speak more intelligently how that customer base has changed over time, but I just cannot -- I don't have any basis for that.
Q. Does FirstEnergy have any -- do you have

any knowledge of the size, the funding size, of low income programs in other electric distribution utilities in Ohio, such as AEP or Duke Energy?

A. I don't have that off the top of my head.

MS. MOONEY: Your Honor, I would not specifically ask this witness this question, but -- and I know I don't have to ask for administrative notice, but I would still like to put on the record the -- at least for the last five years, since '08, the numbers of the Universal Service Fund applications that are filed every year. They are usually filed on October 31, 2008, and we would like to take administrative notice of them for the purpose of this case showing the increase in the three operating companies of at least the customers that are on the Percentage of Income Payment Plan.

MS. DUNN: I am going object.

EXAMINER PRICE: Objections?

MS. DUNN: No foundation. The witness has answered that he -- he doesn't.

EXAMINER PRICE: She is asking whether other parties will agree to take administrative notice of these numbers.

MS. DUNN: The companies will not.

MS. MOONEY: Well, I would like to just

read in the case numbers. I understand I don't even have to ask for administrative notice of the PIPP applications by the Ohio Department of Development that are made every year but.

EXAMINER PRICE: I'm not sure what you're asking me.

MS. MOONEY: I just want to give you the case numbers of the last five.

EXAMINER PRICE: Are the case numbers -- is the information you want in a Commission order in these case numbers?

MS. MOONEY: These are -- I don't know if they actually end up being in the opinion and orders. They are in the applications filed by the Ohio Department of Development.

EXAMINER PRICE: Well, then if it's the -- if it's a document, you are going to take administrative notice of those documents.

MS. MOONEY: Well, I would ask for administrative notice of the applications in the last five USF rider cases, which is --

EXAMINER PRICE: Why don't you read those case numbers out now.

MS. MOOONEY: Yes. Thank you. There is 08-658-EL-UNC, and the application was filed on

October 31, 2008. There's 09-463-EL-UNC, and an application filed 11-24-2009. Then there's 10-725-EL-USF, amended application filed on November 24, 2009. And then 11-3223-EL-USF, an application filed on October 31, 2001. And this year's is 12-1719-EL-USF, and that application -- and the final application will be filed on October 31, 2020.

EXAMINER PRICE: You are asking for administrative notice to be taken of those documents for the sole purpose of noting the number of PIPP applications per year.

MS. MOONEY: The number of PIPP customers.

EXAMINER PRICE: PIPP customers per year.

MS. MOONEY: Per year in each of those five years just to show --

EXAMINER PRICE: Objections?

MS. DUNN: I would like to take a look at those applications. I'm familiar with the last, the 12, but not the others to even know if what she is saying is accurate. So I can either take a break now and look at them or I can do it after.

EXAMINER PRICE: We will take it up first thing tomorrow.

MS. DUNN: Thank you.

EXAMINER PRICE: Are you going to be back, Ms. Mooney?

MS. MOONEY: Pardon me?

EXAMINER PRICE: Will you be back tomorrow morning?

MS. MOONEY: I will now.

EXAMINER PRICE: We'll take it up tomorrow morning.

Q. (By Ms. Mooney) Let me ask you another question. Are you aware of census -- data from the U.S. Census Bureau regarding incomes of households and families in the three operating companies of FirstEnergy?

A. I would say I'm aware that the -- or of the census data, but I can't specifically cite the census data.

MS. MOONEY: And, your Honor, do I need to have administrative notice taken of U.S. Census Bureau information regarding the number of --

EXAMINER PRICE: No. I think you are going to need to put a witness on for that one. I am not sure if I'm comfortable. I'm not even -- do you have a document?

MS. MOONEY: I do. I can give you a --

there's a website from where we got the information. If that's something you could also just take administrative notice of. I'm not expecting to introduce it as an exhibit because I don't think this witness is --

EXAMINER PRICE: Ms. Dunn, it seems like you have something you would like to say.

MS. DUNN: I would like to see a copy of it and to see what it says. I'm not trying to impede the ability of her to question the witness. I just think I need to know where she is coming from and discuss with my co-counsel and maybe we can figure something out.

EXAMINER PRICE: I would like to see it, too, before I take administrative notice of it.

MS. MOONEY: I'll show you. I have what is it called, the website.

EXAMINER PRICE: URL.

MS. MOONEY: Yeah, URL.

EXAMINER PRICE: Now, which numbers on this document are you asking administrative notice be taken of?

MS. MOONEY: Well, I'm just at this point asking the Census Bureau, American Fact Finder from the Census Bureau. I'm not specifically going to point out to any number that I want in the record. I just actually was hoping to just get administrative notice of the Census Bureau for information about the number of low income customers. This one is just Ohio. I don't think the Census Bureau does the operating companies of FirstEnergy.

EXAMINER PRICE: No, I understand. I guess what I am asking, is this different income levels? Are you asking for this number for every income level, or is there some particular income level you're looking for?

MS. MOONEY: Well, no. I didn't want to get that specific about it.

EXAMINER PRICE: Okay.

MS. DUNN: The companies object on the basis of foundation, relevancy; also the fact that there's no explanation as to what these numbers mean, and it's not something that's proper for administrative notice.

EXAMINER PRICE: Okay. We will go ahead and take administrative notice of the published results of the 2011 American Communities Survey, One Year Estimates for the State of Ohio, which is easily confirmable by any party, and if any party disputes the use of the numbers, they can raise it in their brief.

MS. DUNN: Okay.

MS. MOONEY: Thank you, your Honor. That's all I have.

EXAMINER PRICE: Thank you.

EnerNOC?

MR. POULOS: Thank you, your Honor.

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CROSS-EXAMINATION

By Mr. Poulos:

Q. Good afternoon, Mr. Miller.

A. Good afternoon.

Q. My name is Greg Poulos, and I represent EnerNOC, and I have some questions for the companies about the demand response program, and you represent -- you're the company representative who will be sponsoring that part of the application?

A. Yes.

Q. First, I wanted to see if you would agree that a benefit of the demand reduction programs is that demand response participation reduces the need to build additional generation capacity.

A. In our plans we do identify that as a potential benefit, yes.

Q. And that the demand response programs may benefit the environment.

A. That is also in the plan as a potential benefit.

Q. Would you also agree that bidding demand response resources into the PJM or RPM can displace higher-priced generation resources and result in lower capacity prices?

A. That is my understanding.

Q. Now, I want to walk you -- have you look at your testimony, page 14, lines 19 to 23, the demand response program. Just let me know auction you're there.

A. Okay.

Q. And this also goes over to the next page. Your testimony on the demand response programs talks about two different types of programs. The first should be the existing C&I interruptible load programs that would be the ELR and OLR, correct?

A. Yes, that's the first part.

Q. And of that first part, there are no customers on the OLR, correct?

A. That's my understanding currently.

Q. The second aspect of the demand response program is contracting with demand response -- contracting for demand response; is that correct?

A. Yes; contract for with demand attributes with customers or curtailment service providers.

Q. Would you also agree that the companies are expecting to get a lot of their peak demand reduction that they need for their benchmarks from the energy efficiency programs?

A. Yes.

Q. And, in fact, a significant amount of that peak demand reduction will come from the energy efficiency programs, won't it?

MS. DUNN: Mr. Miller, it might be helpful to identify for the record what you're looking at so somebody knows.

THE WITNESS: I was looking at Table 7 of the company's plans, identifies the program contributions, and I was just looking at the contributions relative from the EE&C portfolio versus DR.

And based on that, the answer would be yes, there is a material amount of DR that's coming from the energy efficiency programs in the form of peak demand response.

Q. Thank you. Now, I want to talk about counting the contracted demand response and just exactly what the contracted demand response is and how it works. You started to answer the question already a little bit, but would you agree that contracted demand resources include contracts the companies may have with customers for PJM CFPs?

A. Yes.

Q. For near demand response attributes?

A. Yes.

Q. How would you characterize the attributes?

A. The attributes would be the anticipated demand response for the customers associated with what they would have registered as part of the PJM program.

Q. And the companies are not taking ownership of the demand response in the actual participation of that demand response. You are just taking credit for what was done, completed, correct?

A. That is correct.

Q. Currently the company has an RFP process to obtain those attributes; is that correct?

A. Yes.

Q. And as part of that RFP process, the company has gone out and done RFPs the last couple of years; is that correct?

A. 2011 and '12 that I am aware of.

Q. As part of that process, if you are a winning bidder and you are asked -- you are awarded the opportunity to give -- to provide the companies demand response attributes, then you are paid based on what bid you presented; is that correct?

A. It would be based on the amount of resources that we ultimately contract with the winning bidder.

Q. And after that bidder has won, they -- they have to actually demonstrate that they did have the demand response to participate, correct?

A. That's my understanding, yes.

Q. And how -- how does the RFP winner demonstrate that to the companies?

A. I understand it's based on the CSP's, I'll say, test associated with participation in the PJM programs.

Q. So there's a process where they -- the -- if it's a CSP, they must show you or demonstrate through paperwork and documentation they actually did complete the reductions.

A. That is my understanding. I'm not directly involved in that activity to speak to exactly the details, though.

Q. And the contracted DR part of the DR

programs for the companies, that's kind of like the last stage of what -- how you obtain your demand response attributes, would you agree with that? For example, you would first look to your energy efficiency demand response, and you would look maybe to your ELR demand response?

A. That is correct.

Q. Can you tell me approximately how much the company's paid per megawatt for demand response attributes that were obtained in 2011?

MS. DUNN: I just want to make sure, and it's because I'm not sure, is the information confidential?

THE WITNESS: The information would be confidential, yes.

Q. Just a general figure. I don't want a specific -- I don't want specific conditions or anything.

MS. KOLICH: In the aggregate?

MR. POULOS: Just an average. How -- can we go off the record?

MS. KOLICH: Can we go off the record?

EXAMINER PRICE: Let's go off the record.

(Discussion off the record.)

EXAMINER PRICE: Okay. Let's go back on

the record. I'm going to summarize what I think happened, and the parties can correct me if I'm wrong.

While we were off the record, the parties agreed to file under seal a late-filed exhibit by the close of the hearing which will contain the accurate number to the question that Mr. Poulos asked, and the company will provide that exhibit to all parties with which the company has a confidentiality agreement.

MS. DUNN: That is correct.

MR. POULOS: That is accurate. Thank you, your Honor.

EXAMINER PRICE: Proceed, Mr. Poulos.

MR. POULOS: Thank you.

Q. (By Mr. Poulos) Mr. Miller, as we were discussing the RFP process, that was part of the programs that existed in the last plan; is that correct?

A. In the current plan, correct.

Q. Thank you, the current plan. The companies have proposed, at least in part of the application, to remove the RFP part of the process; is that correct?

A. That is correct.

Q. I'll have you look at page 15 of your testimony, lines 6 through 11. That's where it talks about the process of no longer doing an RFP process, but now the companies are asking to count, for purposes of the PDR compliance, all demand response resources for the PJM market for applicable delivery year. Did I read that correctly?

A. What was the page number? I'm sorry.

Q. I'm sorry, page 15, lines 6 through 8 is what I read.

A. That is correct.

Q. And just to clarify, auction you are talking about demand response resources participating in the PJM market, you are referring to the PJM RPM, correct?

A. That is correct.

Q. There are a couple of aspects of this proposal that I wanted to ask you some questions on. Do you follow the PJM RPM participation numbers, the demand response numbers?

A. No --

EXAMINER PRICE: Just smack it.

A. Not intimately, no. I'm -- I have at times looked at the PJM participation numbers, but I have not, you know, I'll say frequently or intimately followed them.

MR. POULOS: Your Honor, may I approach?
EXAMINER PRICE: You may.
MR. POULOS: Your Honor, may I mark this document which states at the top "PJM" and has the title "2015/2016 RPM Base Residual Auction Results" as EnerNOC Exhibit 1.
EXAMINER PRICE: So marked.
(EXHIBIT MARKED FOR IDENTIFICATION.)
MR. POULOS: Thank you.
Q. (By Mr. Poulos) Mr. Miller, do you recognize this document?
A. Yes.
Q. Have you reviewed this before?
A. I'll say casually.
Q. Can I have you look at page 8 of this document. Now, looking at page 8, if you look at ATSI, which is the zone that the FirstEnergy companies are in, the PJM RPM zone; is that correct?
A. The Ohio companies.
Q. Ohio companies, thank you. And looking across at 2014/15 in the cleared megawatt area, do you see where I'm referring to where it talks about 95.7 megawatts?
A. Yes.
Q. And then for 2015/16 you talked about

1,663 megawatts.
A. Yes.
Q. Is that your -- do you have an understanding that is -- those are the amount of demand response resources that were cleared in the ATSI zone in those -- in 2014/15 and 2015/16?
A. That's my understanding.
Q. I also handed you an Exhibit BDE-3. Do you have that in front of you?
A. Yes.
Q. BDE-3, do you recognize that as an exhibit in this case already?
A. I'm sorry. The question?
Q. Do you recognize this as an exhibit in this case? It's part of the application, isn't it?
A. Yes.
Q. Looking down at the total Ohio, and 2013 all the way across to the right talks -- do you see the numer 463?
A. Yes.
Q. Would you agree with me that 463 is the amount of megawatts that the companies would need in 2013 to meet their peak demand reduction benchmarks?
A. 463 in 2013, yes.
Q. And just while you are looking at it,

2014 would be 551.

A. Correct.

Q. And the conditions to meet their benchmark in 2015, it would be 622 megawatts.

A. That is correct.

Q. So looking back at page 8 of EnerNOC Exhibit 1 for 20,000 -- in ATSI and looking across 2014/15, it says 955 megawatts for ATSI. Do you see that? 955.7 to be exact.

A. Yes.

Q. Now, I recognize that ATSI is not just the FirstEnergy companies, correct?

A. Correct.

Q. But it's a significant -- the significant part of ATSI is just the companies, would you agree with that?

A. I'm not familiar to know the customer distribution that makes up the megawatts to know what portion would be as part of the FE companies or other companies.

Q. As your view of these as I'm showing you these figures, would you agree with me that in 2013 that there is enough demand response in the PJM RPM based on these figures on EnerNOC Exhibit 1, that it could cover all of the companies' peak demand reduction requirements in that year, 2013?

A. I would say potentially, again, not knowing the location of the customers that represent the cleared megawatts.

Q. Would your answer be the same for 2014 and 2015?

A. Yes.

Q. Looking again at EnerNOC Exhibit 1 and the 955.7 figure for 2014/25015 in ATSI --

A. Yes.

Q. -- and just referring to the FirstEnergy companies, is it your understanding that the demand response in that -- that was in the 2014-2015 RPM delivery year, is mostly curtailable service providers, curtailment service providers, and from companies -- from customers, and, more directly, is not from the companies?

A. I can't speak to that distribution.

Q. Let me ask you --

A. I would just be speculating.

Q. Let me ask it a little clearer. The 955.7 megawatts for 2014-2015 that were in ATSI, did the companies -- did any of those megawatts come from the companies?

A. I know we have participated in the PJM auction. I cannot speak to the delivery years or the megawatts, however.

Q. Would there be any other witness who could in this case?

A. Yes, Witness Demiray.

Q. Do you have an understanding that CSPs and direct participation provide most of the DR that's accounted for in that 955?

MS. DUNN: Asked and answered.

EXAMINER PRICE: Can I have the question back again.

(Record read.)

EXAMINER PRICE: Sustained.

Q. If it -- hypothetically speaking, if there is 955 megawatts, I'm referring to in the 2014-'15 year, the FirstEnergy companies' territory, and the companies needed significantly less megawatts to meet their demand reduction level, say they were looking at 2014, they would only needed 551, would the companies be asking for shared savings for the amount in excess of the 551 demand reduction benchmark?

A. I can't speak to the shared savings proposal. That would be Witness Demiray.

EXAMINER PRICE: I see how it goes.

Everybody pointed the finger at you. You are pointing at the next witness down the line.

THE WITNESS: Sorry.

Q. If the companies' proposal to count all the demand response within the territory in this new approach that's presented in the application is approved, is there a process for validating that the demand response actually happens?

A. I would expect that the registration and the documentation that we discussed earlier with PJM would provide the justification that the resources actually were available for PJM.

Q. So there would be no other expectation of any of the parties to perform the demand response to demonstrate, to provide paperwork or do any extra work to demonstrate that they complied?

A. Not that I can think of.

Q. Mr. Miller, is your opinion -- is it your opinion that this approach to -- for the companies to be able to account for all demand response within its territory will incur more contracted DR or more DR from CSPs?

A. The approach is to -- the approach is to recognize the customers who are already participating in the PJM programs and the companies' service territories, so it would be leveraging the existing resources.

Q. Would it in any way encourage more demand response participation by curtailment service providers?

A. For some reason that's -- my inclination is no. The -- the thoughts that -- excuse me. The reason for the pause is more associated to the customers' decision to participate in those programs, you know, the value proposition associated with the PJM market, and the customer is already actively making that decision and participating, and there's many factors that influence the customers' decision to participate. So I'm kind of hesitant on the, you know, new aspect just recognizing all the dynamics that impact customers' decisions to participate in the markets.

Q. Are there steps -- are there steps that the companies could take to encourage more demand response from curtailment service providers or directly from customers in the territories?

A. I believe that's yes.

Q. Has the company reviewed or considered any of those as part of this application?

A. No, we have not.

MR. POULOS: Your Honor, may I approach the witness?

EXAMINER PRICE: You may.

MR. POULOS: Thank you.

Q. Mr. Miller, let me know auction you have had a chance to look this over.

A. Okay.

MR. POULOS: Your Honor, may I have this marked as EnerNOC Exhibit 2.

EXAMINER PRICE: You may.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MR. POULOS: Thank you. And for purposes of the record, this is a Commission entry in Case No. 12-814-EL-UNC that was entered on February 29, 2012.

Q. Mr. Miller, do you recognize this document?

A. I do recognize it, yes.

Q. I want to refer you to paragraph 10. It's on page 3. This document was filed -- it was entered by the Commission and it was addressing coal-fired plant retirements by the companies and how best to address those -- those retirements in the capacity auction. Would you agree with that?

A. That's my understanding.

Q. And just at the end of the last

paragraph, paragraph 10, the Commission states that "The company shall file no later than July 31, 2012, interview efficiency and peak demand reduction program portfolio plans, specifically those programs that in the aggregate would have a mitigating impact on the generation retirements."

Do you see that?

A. Yes, I do.

Q. And the companies did file its application on July 31, 2012, correct?

A. That's my understanding.

Q. Now, is it your position that as to the aggregating -- the aggregate would have a mitigating impact on the generation retirement, on that statement? Is it your position that counting the demand resources from other parties, such as CSPs and from other customers, would have any mitigating impact on the generation retirements?

A. I don't have any analysis where I would be able to answer that question. And to elaborate further, the -- I mentioned before not knowing the location of the customers, the demand response contributions that are registered in PJM, nor the issues surrounding the transmission, so to speak, or the generation retirements that are mentioned, I wouldn't be able to say, and, actually, I wouldn't be equipped to say anything as to how the demand response attributes would benefit those conditions.

Q. Or if they would mitigate?

A. Or if they would mitigate. I can only imagine the complexities that go into the electric infrastructure in terms of power flows and to even comprehend how demand response in certain areas impacts the system.

Q. And I think you said there was no analysis done; is that what you said?

A. As part of the developing our portfolio plans for '13 through '15, I did not do any analysis. I will comment that the plans that I developed were specifically designed to target our compliance, our cumulative benchmarks in '13 through '15.

Q. Going back to the two different types of contracted demand response approaches, the one which is done before the RFP approach, and the one that is the current plan for the RFP approach, and the one that's proposed in this -- in this filing, which is just to count the -- for purposes of the DR compliance demand response resources in the PJM market.

Now, we talked about the statements about the new approach. But isn't it also true that the companies are seeking authority from the Commission to count all contracted DR in their respective territories but still budget at $31 million for contracted DR purposes?

A. We did include a budget for DR purposes in the plan. I would have to check to, you know, quote the exact budget value. I would say that number appears reasonable, subject to check.

Q. Reasonable.

A. Well, in terms of what was included as part of the portfolio budget, I'm sorry.

Q. Thank you. Would you agree that the companies budgeted $31 million or a reasonable amount close to that because there's a question about whether -- let me strike that.

Let me ask this, why they budget the $31 million?

A. The budget that we included for the demand reduction program was specifically designed for two reasons. It was to provide budget availability if the RFP process should continue, and also to provide funding for -- as I mentioned in the program description, it does contemplate contracting with customers directly as well, which,

theoretically, could be an RFP process as well.
Q. As part of the $31 million figure, as best I understand, this is from discovery responses, equates to 258 megawatts that may be needed from contracted DR times $120,000 per megawatt. Is that your understanding as well? Could I have that correct?
A. The 120,000 number is correct. The megawatt value I'll have to check to verify.
Q. I can absolutely show it to you. I hate to go through the time of going through the math, but I do have discovery responses. I hate to -- subject to check, would you agree to that? And I'll show you how I did my math in my discovery responses.
A. Okay. Yes.
Q. I do have discovery responses here, by the way. So the $120,000, you said you knew that number was correct, and how did you -- how did you calculate the 120,000 as being the correct number?
A. The 120,000 is based on the value that was approved under the company's existing law for contributing resources, the underlying assumptions behind that. I shouldn't use the word "assumption." The underlying values are the credits that we paid to customers, I should say interruptible customers,

through company tariffs.

Q. What do you mean, is that the ELR and the OLR?

A. Those would be the tariffs, yes.

Q. So the $120,000 is -- pertains to how you calculate the ELR and OLR; is that correct?

A. It's basically recognizing that the value that we are paying for the interruptibility under the interruptible tariffs would be equivalent to the value that we would pay for the contracted resources. So we use the same credit that's embedded within the company tariffs for the interruptibility through ELR as the basis for the payments for interruptibility for contracted resources.

EXAMINER PRICE: Now, does the $31 million recover ELR program costs? Is that part of the $31 million?

THE WITNESS: No, it does not.

EXAMINER PRICE: This is just a reference point for you to use?

THE WITNESS: That is correct.

EXAMINER PRICE: Just to be clear, if you were to contract with a third party for less than $120,000, you would recover that lower number, not the $120,000 from ratepayers?

THE WITNESS: That is correct. It would be wasted on the actual costs associated with those contracts.

MR. POULOS: I have no further questions. Thank you.

EXAMINER PRICE: IEU-Ohio.

MR. OLIKER: I will try to be really brief. It doesn't always work out that way, though.

EXAMINER PRICE: We've got lots of time.

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CROSS-EXAMINATION

By Mr. Oliker:

Q. Good afternoon, Mr. Miller. My name is Joe Oliker, and I represent IEU-Ohio. I will try to keep this as brief as possible.

Now, in your testimony you recognize that energy efficiency savings can be divided by mercantile customers who are exercising the self-direct option, correct?

A. Is there a specific reference or? I'm not familiar with the mercantile self-direct.

Q. It's not that contentious, if you could talk, generally speaking, you recognize that option exists, right?

A. Yes.

Q. And you recognize those programs -- or should I say those -- those investments are being funded completely by customers, and that's something that they are doing as part of their business plan, and they can do that and take an exemption under the rider without receiving any compensation for percentages, correct?

A. That is correct. The exemptions from the rider is quote, unquote, incentive for the customer to do those projects.

Q. And do you -- were you aware that's -- I understand you are not an attorney, but you understand that that's an option that exists under state law, correct?

A. That is my understanding.

Q. And are you familiar with the mercantile pilot program under Case No. 10-834?

A. I'm familiar with the mercantile program. The case number I --

Q. There is only one, so.

A. Okay.

Q. As you understand that program, would you agree that is a program that the Commission designed to be applied statewide?

A. I don't know that.

MR. OLIKER: And that's fine, okay. Thank you, Mr. Miller. That's all I have.

EXAMINER PRICE: ELPC.

MR. McDANIEL: Thank you, your Honors.

EXAMINER PRICE: Just for the record, Mr. Kelter, we did in fact stay until 10 o'clock on the first day of the ESP III hearing. Don't tempt fate.

MR. KELTER: I'm very sorry I missed that, your Honor. I will withdraw that joke.

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CROSS-EXAMINATION

By Mr. McDaniel:

Q. Good afternoon.

A. Good afternoon.

Q. I am Nick McDaniel from ELPC.

Mr. Miller, when someone buys a FirstEnergy incentivized goal, when does FirstEnergy get the information that that goal was purchased?

MS. DUNN: Are you -- are you talking about under the current plan?

MR. McDANIEL: Under the current plan.

A. I'm not directly involved in implementation so it's hard for me to speak to the exact specifics of the logistics, but my familiarity with what I would characterize as point of sale programs would be that we have interface with retailers who would provide reporting to us on some frequent basis. I would -- I don't want to speculate, but on some basis that we would then rely on as the source of that participation in the program.

Q. Is that reporting going to be the same for different FirstEnergy incentivized projects with retailers?

A. I would anticipate it to be the same, yes.

Q. Could anyone else speak to this reporting?

A. For clarification reporting that we would get from the retailers?

Q. Yes.

A. I'm probably the most appropriate witness so I can try to do my best.

Q. Okay.

MS. KOLICH: Is it just that you want to know how often the reports come in?

MR. McDANIEL: Yes, that's it.

MS. KOLICH: The companies will stipulate they come in monthly, just to clarify for the record, from the retail stores.

MR. McDANIEL: That's fine.

MS. KOLICH: We receive them monthly.

MR. McDANIEL: Thank you.

Q. (By Mr. McDaniel) Now, Mr. Miller, FirstEnergy companies have energy efficiency programs in other states; is that correct?

A. Yes.

Q. And that includes Pennsylvania and Maryland.

A. Yes. We have four utilities in Pennsylvania that have energy efficiency programs. We also have two utilities in West Virginia and one in Maryland also that have energy efficiency programs where we're directly managing those programs.

Q. And on page 3, line 9, of your testimony, you state, "I am responsible for development and compliance activities related to energy efficiency and conservation ('EE&C') for the FirstEnergy utilities in Ohio, Maryland, New Jersey, Pennsylvania and West Virginia." Is that correct?

A. Yes.

Q. In regard to the proposed conservation reduction study, has the Ohio draft TRM included conservation voltage reduction as an eligible measure?

A. No, conservation voltage reduction is not identified as a TRM measure. I would clarify that conservation voltage reduction is what I would characterize as a custom measure, which typically wouldn't be addressed in a Technical Reference Manual.

Q. Has the Pennsylvania TRM included conservation voltage reduction?

A. Not to my knowledge.

Q. And the same question for the Maryland TRM.

A. That is correct.

Q. Now, FirstEnergy has proposed --

A. You have to hit it. That's what I was told.

Q. I'll start over. FirstEnergy -- FirstEnergy has proposed energy efficiency kits that include some combination of CFLs, LED nightlights, furnace whistles, smart strips, shower heads, and aerators; is that correct?

A. That is a typical kit, correct.

Q. What is FirstEnergy's projected installation rate for the CFLs?

A. In our modeling we used a .86

installation rate for the CFL component of the kits.

Q. And is that installation rate based on the Ohio TRM?

A. It's based on the Ohio TRM, but justified based on other experience that we have associated with the energy efficiency kits.

Q. The Ohio TRM specifically, that's not specific to energy efficiency kits, correct?

A. That's correct. It's associated with CFLs purchased through retail channels.

Q. What's FirstEnergy's projected installation rate for LED nightlights?

A. I believe the number is 30 percent for the LED nightlights. I would need to verify that, though. That's what I believe, the number that popped in my head.

Q. That easily -- can we figure that out easily or not, no?

A. Yes. That would be something that I could check easily. I just -- with the information I have with me, I don't have that detail.

Q. Do you know the installation rates, the projected installation rates for furnace whistles, smart strips, for any of the other products that were in the energy efficiency kit? You can go through them separately if you know any of them.

A. My recollection is the installation rate for smart strips is 47 percent. The installation for low-flow shower heads and faucet aerators are in the 10 to 15 percent range, and the installation rate for -- there is another measure there listed.

EXAMINER PRICE: Furnace whistle, I am displaying my ignorance. You have got to tell me what a furnace whistle is.

THE WITNESS: The furnace whistle actually is a device that goes on the filter, so as the filter in the furnace gets clogged, it will whistle to notify the customer to replace the filter. The furnace whistle, I believe the assumption for the installation rate was 50 percent.

MR. McDANIEL: Just one moment, please.

EXAMINER PRICE: My programmable thermostat informs me auction it's clogged.

THE WITNESS: Okay.

Q. Mr. Miller, in your experience in Pennsylvania, do you know what the installation rate was for furnace whistles with energy efficiency kits?

A. I do not have that number on top of my head.

MR. McDANIEL: May I approach?

EXAMINER PRICE: You may.

Q. Are you familiar with the Pennsylvania Statewide Evaluator Annual Report for the period of June 1, 2012, to May 31, 2011?

A. Yes.

Q. Is that the report in front of you?

A. Yes.

Q. And this was a report prepared by independent evaluators to evaluate the energy efficiency programs in Pennsylvania, correct?

A. Yes.

EXAMINER PRICE: Do you want us to mark this as an exhibit?

MR. McDANIEL: Let's mark it, if I can, as Exhibit ELPC Exhibit 3, please.

EXAMINER PRICE: So marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

Q. Mr. Miller, can you turn to page 64 of the report. This is section 7.2.1.5, which discusses Met-Ed's program. Is Met-Ed a FirstEnergy utility in Pennsylvania?

A. Yes, it is.

Q. Can you read the two sentences under the first bullet point, please, starting with "Distributed"?

A. "Distributed energy efficiency kits," that bullet?

Q. Yes, please.

A. Okay. "Had low installation rates for nightlights (36 percent), faucet aerators (38 percent), and furnace whistles, (0 percent). Met-Ed had similar findings based on its own site surveys and adjusted its installation rates accordingly."

Q. Could you also read the last bullet point as well, starting with "There."

A. "There were some cases where only 1 or 2 smart strips were being used, possibly because a customer only had a need for one yet was given two anyway. Met-Ed had similar findings as the statewide evaluator and assumed a 40 percent installation rate for this measure."

MR. McDANIEL: I would like to move to get that admitted, please.

EXAMINER PRICE: We'll do the admission of all the documents at the end of the witness.

MR. McDANIEL: Okay. I have no further questions.

EXAMINER PRICE: Thank you.

Mr. Lavanga.

MR. LAVANGA: No questions, your Honor.

EXAMINER PRICE: OEG.

MS. KYLER: No questions, your Honor.

EXAMINER PRICE: OCC.

MS. KERN: Just a few, your Honor.

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CROSS-EXAMINATION

By Ms. Kern:

Q. Good afternoon, Mr. Miller. I'm Kyle Kern, an attorney with the Office of the Ohio Consumers' Counsel. I have just a few questions for you.

You were at the hearing yesterday auction Mr. Dargie testified, correct?

A. I was.

MS. DUNN: I'm sorry, Ms. Kern, could you use a microphone?

EXAMINER PRICE: Somebody share a microphone with Ms. Kern here.

Q. Can you hear me?

A. Yes.

Q. Okay. I asked Mr. Dargie a series of questions related to the companies' applications or forms with respect to transfer of ownership of energy credits, and he said a few of my questions were more appropriate for you. And one of the questions I asked Mr. Dargie was whether the terms and conditions forms, and let's stick with residential for now, explain that there is a benefit of conferring ownership rights so that the companies can bid into the base residual auction and lower future capacity costs, and he punted this one to you. Can you answer this?

A. The question is do the forms specifically --

Q. Explain.

A. Explain? Yes, my understanding is that the forms do provide communication to the customer regarding the, I'll say, benefit of providing the resource to the company for purposes of bidding and in offsetting costs to the customers through the rider associated with the revenues that would be received.

Q. Is that benefit explained on both residential and commercial -- the commercial and industrial forms, if you know?

A. I know specifically it's definitely included on the commercial and industrial forms. On the residential form, I have not read that specifically, but it's my understanding that it would be, yes, for the forms where there are a rebate application associated with participation in the program.

Q. Okay. And do you know if the terms and condition forms, let's start with residential, mentioned the PJM measurement and verification standards that have to be met to enable a customer to bid their savings into PJM?

A. I don't know if the forms would specifically mention measurement and verification protocols of PJM. I don't know that.

Q. Either the residential or commercial/industrial.

A. I don't think the forms go to that extensive level of detail, such as the PJM measurement and verification protocols.

Q. If they don't, is there a reason why they wouldn't?

A. The reason I believe would be if they don't go into the mechanics of the PJM protocols would be related to customer confusion associated with, you know, what that term and condition is associated with that rebate application.

MS. KERN: Okay. Thank you. No further questions.

EXAMINER PRICE: Sierra Club.

MR. SOMOZA: I don't have any questions, your Honor.

EXAMINER PRICE: NRDC.

MR. ALLWEIN: Yes, your Honors.

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CROSS-EXAMINATION

By Mr. Allwein:

Q. Good afternoon, Mr. Miller. I'm Chris Allwein, and I will be asking you some questions on behalf of NRDC.

A. Good afternoon.

Q. On page 3, line 8, of your direct testimony, you say that you are responsible for development activities related to energy efficiency and conservation. Can you explain what you mean by "development"?

A. What I mean by development is I'm specifically responsible for development of companies, our plans to comply with, requirementse, requirements associated with energy efficiency that we have in our jurisdictions.

Q. All right. And auction you're -- I think also there on page 3 you talk about what you just said you're responsible for, compliance activities.

And is -- is that along with what you just said, are compliance activities complying with Ohio's -- well, you don't just work in Ohio, so I'm sorry. Just explain what you mean by "compliance activities."

A. Compliance, ultimately the reference on this page is the department I work in is compliance and reporting, and in addition to developing programs and filings associated with energy efficiency, as I mentioned, there are other activities I get involved in across the jurisdictions that aren't specific to development of a program, per se, but, you know, other activities that would, you know, fall within the responsibilities of our department or my department.

Q. Okay.

EXAMINER PRICE: Let's go off the record for one minute.

(Discussion off the record.)

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

Q. So you're not an attorney; is that correct, Mr. Miller?

A. I am not.

Q. All right. But in order to carry out compliance activities, you do have to be familiar with the laws and administrative rules that govern compliance with Ohio energy efficiency benchmarks?

A. Yes; as well as have legal counsel and other representation in the company. Yes.

Q. Okay. But would you say you have a good understanding, even though you are not a lawyer, of Ohio Revised Code 4928.66?

A. I'm sorry, I don't -- I am not very good with numbers, so I would need to know the order that you are referencing in more detail -- or the code. I'm sorry.

Q. Well, Ohio Revised Code 4928.66 is the presentation of the benchmarks for Ohio electric -- electric distribution utilities to achieve through 2025.

A. Okay.

Q. Are you familiar with that?

A. Yes.

Q. Okay. And are you familiar with the Ohio Administrative Code rules that accompany that statute?

A. I'm familiar that there are the additional codes that are associated with that statute.

Q. All right. Thank you. And since you are responsible for compliance activities, you are responsible for the design of the programs?

A. Yes.

Q. And you're responsible for the results of the programs?

A. I'm not sure I understand the -- the -- auction you say "the results," I mean, there's many different types of results.

Q. Certainly. Are you responsible for the energy efficiency savings -- energy efficiency saving results that the programs you develop achieve?

A. I would say that my -- the department I work in is responsible. We do have implementation personnel who manage the programs and are directly responsible for providing the programs and meeting the program targets.

Q. Okay. And who is ultimately responsible for ensuring that -- for ensuring the three distribution utilities' compliance with the statutory energy efficiency benchmarks?

A. The responsibility for complying with the energy efficiency statutory benchmarks would fall on John Dargie.

Q. Okay. Thank you. Do your compliance activities consist of overseeing the evaluation, measurement, and verification of the energy efficiency programs?

A. Not mine specifically, but the team that I -- the department that I work in is responsible for overseeing that as well. There is an organization chart that's provided as part of our filing. I believe it's in section 5, but it does identify the energy efficiency organization, as well as all the individuals who are -- or I should say the positions and the delineation of functions and responsibilities within the energy efficiency department.

Q. Okay. And do any of those individuals listed in that chart receive incentive compensation if the electric distribution utilities exceed the statutory benchmarks?

A. Not to my knowledge.

Q. Okay. Do you receive compensation if the companies exceed their statutory benchmarks?

A. I do not.

Q. Okay. Well, I didn't mean compensation. I am sure you're paid. Do you get a bonus?

A. If I don't do my job, I might not receive compensation, but I have not received, do not receive any incentive pay associated with the performance of the programs.

Q. All right. Thank you. And on page 3, line 17, you state that -- you state that you were involved in the development of the energy efficiency and conservation programs and filings for the utilities formerly owned by Allegheny. How long were you at Allegheny and responsible for the development of their programs?

A. I became -- can you repeat the question? I'm sorry.

Q. Certainly.

A. I think I heard it but --

EXAMINER PRICE: The reporter will read it back. It will be easier.

(Record read.)

A. Since 2009.

Q. Okay. And auction did you assume responsibilities for the FirstEnergy companies for energy efficiency and conservation development and compliance?

A. Upon the completion of the merger process and staffing in approximately May of 2011.

Q. Okay. Have you ever testified as an expert before the Public Utilities Commission of Ohio?

A. I have not previously testified in Ohio.

Q. Okay. Have you testified before other utility commissions?

A. I've testified in front of the Pennsylvania, West Virginia commissions. I've -- in Maryland I've -- I'm not sure it's considered testimony. I have spoken in front of the commission regarding the plans filed by the companies.

Q. Okay. Have you recently attended -- and by "recently," I guess I would mean since 2009 -- any national or regional conferences related to energy efficiency, not including those in the service territories of the companies that were sponsored by the companies?

A. None that I recall.

Q. Okay. Let me ask you this, how do the companies support your professional development in the areas you're testifying to today?

A. I would say that my development has been supported predominantly by working extensively with energy efficiency consultants that we have worked with in developing the companies' plans and programs, as well as the experience provided to the companies by the consultants, you know, through the development of previous plans.

Q. Okay. And would that chiefly be Black &

Veatch, or do you have other consultants that you work with?

A. Black & Veatch would be one consultant. We've worked extensively with ADM Associates. They are the company's evaluation contributor in Pennsylvania, as well as in Ohio, but they have also -- we have also consulted with them in the development of our programs and plans in Maryland, as well as in Ohio and currently in Pennsylvania.

Q. If you look on your testimony, page 4, line 15, you state that "the proposed programs provide the companies with the best opportunity to meet or exceed the benchmarks in a cost-effective manner." And I was wondering does -- does that mean that you've compared your proposed programs to other utilities' proposed or existing programs?

A. We have performed benchmark comparisons with other utilities. You know, part of that also in developing our plans and our programs, we go through what I would characterize as a fairly extensive iterative process where we review the results and the projections of the plans and make adjustments to basically try to develop a plan that has as reasonable projections and results as possible across the portfolio of the programs.

Q. All right. And on page 4, line 15, what do you mean by "cost effective"?

A. The -- the meaning of the language on lines16 and 17 was to develop the plans in a manner that meets the cumulative benchmarks from '13 through '15, but also while minimizing cost to customers.

MR. ALLWEIN: May I have that answer read back, please.

EXAMINER PRICE: You may.

(Record read.)

Q. Now, you stated that you did do some comparisons. Did you compare your proposed programs to AEP's 2012 to 2014 existing programs?

A. We did do certain benchmarking with AEP plans. Specifically what I remember is as part of our initial portfolio development, we did benchmarks to go look for possible measures to consider as part of the plans that -- and we also, you know, look at terms of -- you know, portfolio cost in terms of megawatt-hour savings achieved, again, from a reasonableness of our plan projections, but we did look at some of those comparisons.

Q. Okay. And how about did you compare your proposed programs to Duke's existing programs?

A. We did look at the Duke programs as well.

My recollection was that it was more specific to identification of potential programs and measures.

Q. Okay. And did you compare your proposed programs to Pennsylvania electric companies' existing programs?

A. Similar to Duke, we also looked at Pennsylvania in terms of potential programs and measures. In terms of costs, Pennsylvania has a budget cost cap that's afforded to the utilities to comply with the energy efficiency targets, so there is that additional dynamic that is different, so it does impact total portfolio budgets.

Q. Okay. And one last one, did you compare your proposed programs to Baltimore Gas & Electric's existing programs?

A. Indirectly, yes. We filed plans. One of the companies' affiliates filed a portfolio plan in August of last year. As part of that plan development activity, we did -- we did do comparisons with the other utilities' plans in Maryland. All the utilities' plans were filed at the same time so a lot of the benchmarking was more specific to what the utilities were thinking of, not as much as what the previous programs were.

Q. All right. Give me one second here.

Okay. I want to ask you about the sentence on page 5 of your direct testimony beginning on line 10 and ending on line 14. And just to give you the context, you can read that, but I just want to know what you mean by "keeping overall administrative costs low," which is the end of that sentence on line 14.

A. The reference to administrative costs is associated with what I would characterize as program administrative costs. So by virtue of developing a plan that leverages similar plan design elements across the -- all of the FirstEnergy affiliates that I mentioned where available and reasonable does allow synergies and economies of scale, specifically with the administration of that portfolio.

MR. ALLWEIN: Can you read that last answer back, please. May I have that last answer read back, please?

EXAMINER PRICE: You may.

(Record read.)

Q. All right. So from your answer, and correct me if I mischaracterize it, are you saying that you were comparing your proposed administrative costs as part of that comparison with those other utilities where it was appropriate?

A. The comparisons that we have done tend to be more on what I would call the delineation between operations costs and incentives costs, and within operations would be the administrative component.

Q. Okay.

A. So from comparing and benchmarking the utilities' filings, it's not always cost categories reporting that's provided as part of the reports or filings. It isn't always an apples-to-apples comparison, but, more commonly, available for comparisons would be the operations versus the incentives.

Q. And I would like you to go to page 6, line 1, and there you state that FE and its consultants reviewed the programs and measures offered by other Ohio utilities to establish a universe of programs, that's lines 2 and 3, and measures for consideration. Do you see that?

A. Yes.

Q. Okay. And I want to ask you, did you consider a data center program?

A. Yes, we did.

Q. Okay. Did you consider a continuous improvement program for manufacturers?

A. Not that I recall.

Q. And did you consider a retro

commissioning program?

A. Yes.

Q. If you didn't consider -- may I ask why you didn't consider a continuous improvement program for manufacturers?

A. I don't recall.

Q. I want to ask you, Mr. Fitzpatrick was on earlier, and he talked about how the Market Potential Study was developed. Were you here for that testimony?

A. I was not.

Q. Okay. Well, let me ask you, how did you use the Market Potential Study in developing your proposed plans?

A. We used the Market Potential Study in establishing our final participation projections across our -- across the portfolio of programs and measures specific and unique to each of the operating companies.

Q. Do you have any specific example of how you might have used something, one item that -- that you received from the Market Potential Study to develop just one of your programs or one subprogram?

A. Yes. A specific -- I'm not sure I can give credence to the great -- to the best example, but to try to explain it in more detail, I mentioned before the plan development was a very iterative process where we developed projections, reviewed them with our consultants, solicited feedback also from our vendors, our implementation vendors, and our program managers as part of establishing projections that were projections that are as recent as possible for the programs.

As part of that process we did look at the market potential for specific measures for the companies and basically looked at opportunities in our plan to make our projections more reasonable to align with the findings of a Market Potential Study. There were cases where the Market Potential Study showed more potential than what we were targeting so we felt more comfortable to increase projections and measures, and there were other measures where the market potential showed that our projections were unreasonably high, that we, as a result, reduced the projection accordingly.

Q. Okay. And those were participation projections, right, that you are referring to?

A. Yes, they -- I would say they were more unit projections that were targeting the number of units. The Market Potential Study was more speaking to the potential on a number-of-units basis, so the comparisons don't necessarily recognize a customer may have multiple units, per se. It's more focused on the number of units that are potential or available.

Q. I see. And did that -- and so from -- was that the first step, and then you would establish a budget, or how did that work?

A. The market potential timing was in parallel with a lot of our activities with developing the plan. If I remember timing correctly, we had a proposed program portfolio that we shared with the collaborative in February. At that time we were developing our own projections based off of actual results to date, feedback from program managers, feedback from the implementation vendors.

In parallel with that -- in parallel with that I would say not long thereafter, we were working on the budget projections as well associated with the programs and measures and the Market Potential Study. We did have results that were more second quarter. I'm not remembering the exact month, but it was -- it was being -- the market potentials being completed in parallel auction we had the results is auction we did the refinement to the participation projections.

Q. Okay. And that would have been one of many factors that you just discussed that would have helped you set the budgets for the proposed programs?

A. Ultimately, the budgets for the programs would be recognizing a program portfolio. We used actual contracted pricing that we have with vendors as well as RFP results for specific programs, and, in general, many programs would have what I would call a fixed component that's really independent of the number of participants. It's more of a -- you know, part of that might be vendor set-up expenses. It might be, you know, their administration, requirements, that don't vary whether you have 10 participants or 100 participants.

The other components, you know, tend to be, you know, on a per-unit basis, so a lot of the budget development efforts were associated with identifying the best sources for those projections, developing the fixed and variable components where applicable, and then ultimately once the participation projections were finalized, that would then finalize the ultimate budget based on the participation and the variable costs associated with the participation.

What I mean by variable is a vendor may

have a cost that's based on the specific participant, so if you have 10 participants, it's a fixed amount that applies per 10 participants or 10 times.

Q. Okay. Let's go to the Ohio Edison plan, and look at page 26. That is the energy efficient products program.

A. Okay.

Q. I just want to ask you, and you may have covered some of this already, how did you weigh the cost effectiveness of this program compared to the others as you put the plan together?

A. In developing the cost-effectiveness assessments of the portfolio, Table 7 of the company plans ultimately provides the final cost-effectiveness results. Through that iterative design process, I mentioned where we've engaged our consultant to review the projections. Part of that was both the energy savings and the cost associated with the program.

As we further refine modeling through planned development, we look at cost effectiveness of the programs in order of ensuring that the programs that we are designing and developing are cost effective on a program basis.

Q. Do other utilities in Ohio offer a

similar energy efficiency -- an energy efficient products program?

A. I would say similar, yes.

Q. So other utilities in Ohio offer incentives on many of the same measures within this program?

A. The only measure that I'm unsure of is consumer electronics. I'm confident regarding HVAC, appliances, and lighting measures.

Q. I'm sorry, that was HVAC, lighting, and what else?

A. And the appliance measures.

Q. Thank you.

EXAMINER PRICE: You're confident they do offer incentives for those measures?

THE WITNESS: Yes.

Q. And do the other utilities that are in Ohio or adjacent to your service territories, as far as you know, do they deal, in large part, with the same group of national and regional retailers?

A. I would say yes for national retailers. You know, as for regional, there may be some limitations, you know, just by virtue of who the retailer is and their location within the geographic footprint.

Q. Okay. And because there is some similarity and, you know, these other utilities may deal with some of the same national retailers, I think you said, did you consider jointly implementing this program with other utilities?

MS. DUNN: Chris, just for clarification, when you say "utilities," do you mean electric and gas? Just electric?

MR. ALLWEIN: Just electric.

MS. DUNN: Okay.

A. I can't say that we specifically addressed joint implementation of this program with the other electric utilities in Ohio.

Q. Okay. So is that a "no"?

A. I would say no, yes.

Q. And I want to ask you -- well, any specific reason that you didn't consider that or --

A. I will say in developing the plan, we have considered joint implementation. I know Witness Dargie did mention the appliance recycling program as an example where all the utilities, you know, have contracted with the same vendor to handle appliance recycling attributes.

I will mention that we, you know, do discuss coordination with the other Ohio utilities in our plan document, both from a plan design standpoint and an implementation standpoint. From a plan design standpoint, you know, we do -- we did look at programs and measures offered by the, you know, other utilities in terms of, you know, both the opportunity but also, you know, looking at trying to, you know, to the extent where it makes sense to have, you know, common types of programs, which, you know, could have some opportunities as well.

I will mention, you know, specific to this program from a joint implementation standpoint, you know, we do, as I mentioned, operate energy efficiency programs for four utilities in Pennsylvania, two in West Virginia, one in Maryland, so really I think joint implementation is part of our -- as we go to implement programs, we ultimately have to consider the fact that, you know, we do have large economies of scale associated with our implementation of programs across a multistate region.

You know, I will comment also that there are barriers to joint implementation that need to be recognized. You know, recognizing that we have back office systems, such as tracking and reporting, for instance, where if we were to do programs in Ohio differently than what we are currently doing in other jurisdictions, that could cause cost increases associated with getting the information that we need for tracking and reporting purposes.

So, you know, auction we say the words "joint implementation," at a high level we are planning to jointly implement programs in Ohio across our three utilities. In other jurisdictions I lost count of how many utilities I mentioned. There are joint implementation opportunities as well, and I mentioned at the beginning of the discussion about having those discussions with the other utilities, so -- and I mentioned, you know, I think I commented as we go to implement the programs, you know, that would be something that we would consider through the implementation of the portfolio.

Q. Okay. What is your definition of a lost opportunity as it relates to energy efficiency?

A. Lost opportunity can be pretty broad. I mean, in its basic sense it's for some reason that the -- the customer doesn't undertake the initiative or doesn't participate in the program for some reason that impacted their ability to participate then they -- you know, then they otherwise would have.

Q. Okay. Would you consider the definition of lost opportunity as perhaps also a customer, let's say, buys an appliance but doesn't buy an energy efficient appliance. He just buys one to replace the one he has and doesn't choose the more efficient options. Is that a lost opportunity?

A. It could be. I mean, ultimately it depends on the customer's decision, you know, to buy the appliance that they chose to, you know, recognizing that every customer has a choice in what they decide to participate in. So, I mean, it could be construed as a lost opportunity.

Q. Okay. I mean, for instance, Mr. Fitzpatrick stated this morning that the average life of a refrigerator is 12 years, so that's a long life, on average. And so if a customer buys a less efficient refrigerator but has the option to buy a more efficient refrigerator, is that a lost opportunity?

A. It is. I'm just struggling with the whole customer choice aspect, not knowing the customer's decision to buy the exact refrigerator that they did buy. But, again, I acknowledge it could be considered a lost opportunity.

EXAMINER PRICE: Let's go off the record.

(Discussion off the record.)

EXAMINER PRICE: Let's go back on the record. At this point we will adjourn the hearing until 10:00 o'clock tomorrow. Thank you, all.

MS. KOLICH: Your Honor, before we go off the record.

EXAMINER PRICE: Okay, stay on the record.

MS. KOLICH: Pursuant to your ruling on the motion for the supplemental testimony of Mr. Sullivan being admitted, the parties have worked out that they will be holding a deposition of Mr. Sullivan at 8:00 a.m. at the FirstEnergy offices on the next block.

I think you all know where they are, if you don't see me. Is anyone interested in participating, other than the NRDC and the companies, either via phone or in person?

MR. WILLIAMS: If we can call in from our rooms.

MS. KOLICH: I can provide a conference line, and I can get to you.

MR. WILLIAMS: No, that's all right.

MS. KOLICH: Otherwise, it is the 22nd floor of -- it used to be the Bank One Building -- Chase Building, 8:00 a.m. tomorrow morning.

EXAMINER PRICE: Anybody else?

MR. ALLWEIN: Did you say 22nd floor?

MS. KOLICH: Yes.

EXAMINER PRICE: Anything else before we go off the record?

MR. ALLWEIN: I just want to ask, I spoke with the company briefly, and the witness order for Thursday was in no particular order, and NRDC was requesting that Joel Swisher go first on Thursday.

EXAMINER PRICE: That's fine.

Any objection?

MR. KELTER: Yeah, we would actually like for Crandall to go last because he has travel issues coming in from Vegas.

EXAMINER PRICE: That's fine, Mr. Crandall can be last.

Okay. Anything else before we go off the record?

Have a good evening everybody.

Off the record.

(The hearing was adjourned at 5:56 p.m.)

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CERTIFICATE

I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Tuesday, October 23, 2012, and carefully compared with my original stenographic notes.

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Karen Sue Gibson, Registered
Merit Reporter.

(KSG-5601)

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